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**UNITED STATES DISTRICT COURT
NORTHERN DISTRICT OF NEW YORK**

SECURITIES AND EXCHANGE
COMMISSION,

Plaintiff,

v.

PINNACLE ADVISORS, LLC, *et al.*

Defendants.

Case No.: 5:23-cv-00547-FJS-ATB

**NOTICE OF MOTION TO DISMISS
PURSUANT TO RULE 12(b)(6) OF THE
FEDERAL RULES OF CIVIL
PROCEDURE**

ORAL ARGUMENT REQUESTED

PLEASE TAKE NOTICE that upon the enclosed Memorandum of Law, with Exhibits “1” through “4” attached thereto; and upon all prior pleadings filed herein, the undersigned, on behalf of Defendants Mark E. Wadach and Lawton A. Williamson (hereinafter collectively referred to as “Independent Trustees”), respectfully moves this Court before the Hon. Frederick J. Scullin, Jr., U.S.D.J., on a date and time to be scheduled upon filing by the Clerk of Court, or as soon thereafter as counsel may be heard, at the United States District Court, Northern District of New York, James M. Hanley Federal Building, 100 S. Clinton Street, Syracuse, New York for an Order: (a) dismissing the Complaint with prejudice as against the Independent Trustees pursuant to Federal Rule of Civil Procedure 12(b)(6); and (b) for such other and further relief in favor of the Independent Trustees as the Court deems appropriate.

PLEASE TAKE FURTHER NOTICE that pursuant to Local Rule 7.1(b)(5), the Independent Trustees request oral argument because: (1) the Complaint is the first enforcement action brought by Plaintiff, Securities and Exchange Commission (“SEC”), alleging violations of the SEC’s Liquidity Rule that was recently promulgated pursuant to the Investment Company Act of 1940; (2) the Complaint alleges a novel theory of aiding and abetting liability against the Independent Trustees of a publicly traded mutual fund that lacks clear precedent and that would

have enormous implications for the securities industry; and (3) the Independent Trustees are challenging the Complaint on multiple grounds involving important issues of statutory interpretation, administrative rulemaking, and separation of powers issues. Attorney Jan M. Folena, admitted *pro hac vice*, plans to argue the motion.

Dated: July 11, 2023

Respectfully submitted,

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CERTIFICATE OF SERVICE

I hereby certify that on July 11, 2023, I electronically filed the foregoing Notice of Motion to Dismiss Pursuant to Rule 12(b)(6) of the Federal Rules of Civil Procedure and Memorandum of Law with accompanying documents with the Clerk of the District Court using the CM/ECF system, which sent notification of such filing to the following:

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Date: July 11, 2023

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NORTHERN DISTRICT OF NEW YORK**

SECURITIES AND EXCHANGE
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PINNACLE ADVISORS, LLC, *et al.*

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Case No.: 5:23-cv-00547-FJS-ATB

**MEMORANDUM OF LAW IN SUPPORT OF
DEFENDANTS', LAWTON A. WILLIAMSON'S AND MARK E. WADACH'S,
MOTION TO DISMISS PLAINTIFF'S COMPLAINT WITH PREJUDICE**

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Defendants Lawton A. Williamson and Mark E. Wadach (collectively “Independent Trustees”) respectfully submit this Memorandum of Law in Support of their Motion to Dismiss with Prejudice the Complaint filed by the Securities and Exchange Commission (“SEC” or “Commission”) pursuant to Federal Rule of Civil Procedure 12(b)(6).

I. PRELIMINARY STATEMENT

The SEC’s Complaint against the Independent Trustees of the NYSA Fund (“Fund”), alleging that they aided and abetted the Fund’s purported violation of a purely subjective provision of Rule 22e-4 (the “Liquidity Rule”) of the Investment Company Act of 1940 (“Act” or “ICA”), is an exercise in government overreach. The Independent Trustees complied with their obligations pursuant to the Liquidity Rule. The SEC’s aiding and abetting claim is premised upon its baseless insistence that the Independent Trustees were obliged to undertake additional, unidentified tasks with respect to the Fund’s liquidity determinations that are not required by the Liquidity Rule. The SEC cannot, through an enforcement action, impose obligations on the Independent Trustees that neither the SEC’s own Rule nor the Act require.

First, the SEC fails to plead all three elements of aiding and abetting: substantial assistance, scienter, and a primary violation of the Liquidity Rule. To properly plead “substantial assistance,” the SEC must allege that the Independent Trustees associated themselves with the Fund’s alleged violation of the Rule, participated in it as something they wished to bring about, and sought by their actions to make it succeed. They must have consciously assisted the alleged violation in some active way. The Complaint fails to allege *any* action, assistance, approval, or participation by the Independent Trustees in the Fund’s liquidity determinations. Second, the Complaint does not properly plead scienter as it fails to establish that the Independent Trustees knew of the primary violation, acted contrary to the standard of

care set forth in the Rule, and were reckless with respect to a purely subjective determination.

Third, a primary violation of the Liquidity Rule does not exist as the SEC: (1) proposed to amend the core provisions of the Rule as they lack clarity and deprived the Independent Trustees of adequate fair notice; (2) failed to state that the Fund committed a primary violation of the Rule to support the aiding and abetting charge against the Independent Trustees; and (3) improperly promulgated the Rule without proper statutory authority. The SEC has proposed material amendments to all three provisions of the Liquidity Rule at issue in this case in tacit admission that the Rule lacks clarity. The SEC nonetheless elected to enforce the defective Rule against the Independent Trustees. The basis for the primary violation supporting the aiding and abetting charges against the Independent Trustees is the Fund's non-public June 10, 2019 letter to the SEC (the "June 10, 2019 Letter"). The letter is not a violation of the Liquidity Rule and, therefore, cannot support the charges. Finally, the Rule exceeds the SEC's narrow rulemaking authority with respect to liquidity and the obligations of fund boards. The SEC's failure to state an aiding and abetting claim against the Independent Trustees, its unconstitutional overreach, and the impropriety of the Liquidity Rule warrant dismissal of the Complaint with prejudice.

II. STATEMENT OF FACTS

A. The NYSA Trust, Fund, Management, and the Board

Pinnacle Advisors, LLC ("Pinnacle") is an SEC-registered investment adviser with its principal place of business in Syracuse, New York. Pinnacle's sole client was the NYSA Series Trust ("Trust"), a Massachusetts business trust. The Trust, a formerly registered investment company, had one investment portfolio, the Fund. Complaint, Dkt. no. 1 ("Compl."), ¶¶ 13, 18. The Fund was primarily invested in common stock, municipal bonds, and money market funds. NYSA Series Trust, Certified Shareholder Report (Form N-CSR) (June 11, 2018) (Exhibit 1).

For the year ending March 2019, the Fund reported total assets of \$1.89 million. Compl., ¶ 18.

The Fund was managed by Robert Cuculich, the President and Portfolio Manager, and Benjamin Quilty, the Chief Financial Officer, Treasurer, and Chief Compliance Officer (collectively “Fund Management”). *Id.* at ¶¶ 14, 15. The Board was comprised of one interested trustee, identified in the Complaint as “Trustee A,” and two independent trustees, Lawton Williamson (“Williamson”) and Mark Wadach (“Wadach”). Williamson is a 66-year-old resident of Liverpool, New York who began serving on the Board in 2013. Wadach is a 71-year-old resident of Syracuse, New York who began serving on the Board in 1997. *Id.* at ¶¶ 16, 17.

On September 8, 2020, the Trust distributed 64 percent of the Fund’s assets to the shareholders and, on September 9, 2020, requested that the SEC deregister the Fund as an investment company. Compl., ¶¶ 204-05. The Fund is now the NYSA Liquidating Trust. *Id.* at ¶ 18. The NYSA Liquidating Trust currently holds a single asset, 84,332 shares in a private medical device company located in Syracuse, New York. *Id.* at ¶ 208. The Fund purchased these shares through private placements between 2007 and 2009. *Id.* at ¶ 37. The Fund informed investors in its shareholder reports and financial statements that the shares were illiquid. *Id.* at ¶ 44. The Fund’s preliminary classification of the shares as “less liquid” in a June 10, 2019 Letter that was sent, not to investors, but to one staff member at the SEC forms the basis of this action.

B. The Investment Company Act and the Liquidity Rule

The Act provides the statutory authority for the SEC to regulate investment companies in the United States. Section 22(e) of the Act requires registered investment companies to satisfy shareholder redemptions within seven days. *Id.* at ¶ 21. The SEC promulgated the Liquidity Rule in 2016, pursuant to alleged authority granted in Section 22 of the Act. 15 U.S.C. § 80a-22. The Liquidity Rule was designed to reduce the risk that funds would be unable to meet the

seven-day redemption requirement. SEC Release No. 33-10233, October 13, 2016, at p. 1 (Exhibit 2) (“2016 Release”)¹; Compl., ¶¶ 21, 22. The Liquidity Rule requires the fund -- not the board -- to classify each of the fund’s portfolio assets into one of four categories: highly liquid, moderately liquid, less liquid and illiquid. 17 C.F.R. § 270.22e-4(b)(1)(ii); *see also* 17 C.F.R. § 270.22e-4(a)(6), (8), (10), (12).

The Liquidity Rule provides specific and enumerated requirements for fund boards. The plain language of the Rule defines the board’s oversight in an exclusive list of three requirements: 1) approve the liquidity risk management program (“LRMP”); 2) approve a designee to administer the LRMP; and 3) review, no less frequently than annually, a written report prepared by the designated administrator of the LRMP that addresses the operation of the program. 17 C.F.R. § 270.22e-4(b)(2)(i)-(iii).

The Liquidity Rule’s adopting release clearly states that the board is *not* responsible for making determinations as to the liquidity classifications of specific assets. With respect to the role of the fund -- not the board -- the Commission stated that it “believe[d] ... *members of the fund industry* are generally in the best position to provide current information on the conditions of fund liquidity since they are in the markets everyday trading securities and observe how markets are evolving and related liquidity characteristics are changing.” Exhibit 2 at pp. 183-84 (emphasis added). Specifically, the Commission stated:

...[W]ith respect to classifying the liquidity of portfolio investments, **neither our guidance nor the final rule** places the responsibility for determining whether a specific security is liquid or illiquid **on the fund’s board**.

Id. at p. 127 (emphasis added). The SEC reiterated that the board’s responsibility is limited to approving the LRMP, identifying a program administrator, and reviewing the LRMP annually.

¹ The SEC does not allege that the Fund was -- at any time -- unable to comply with the seven-day redemption requirement or otherwise redeem investors pursuant to Section 22(e) of the Act.

*Id.*²

C. Liquidity Rule Compliance Timeline

The Fund -- not the Board -- was required to inform the SEC in a non-public submission, Form N-LIQUID, whether more than 15% of its assets were illiquid as defined in the Liquidity Rule by June 1, 2019. Compl., ¶¶ 33-34. The Board's obligations were limited to: (1) designating an individual to administer the LRMP by June 1, 2019; (2) approving the LRMP by December 1, 2019; and (3) reviewing, no less frequently than annually (or by December 1, 2020), a report prepared by the designated administrator regarding the operation of the LRMP. Compl., ¶¶ 31-33. The Board complied with the first two obligations in June and December of 2019, but was not obliged to comply with the third, as the annual review of the LRMP was not yet required when the SEC deregistered the Fund in September 2020. Compl., ¶¶ 150, 162-63.

D. Asset Classifications are Subjective Opinions of Industry Professionals

When it promulgated the Liquidity Rule, the Commission acknowledged that asset liquidity classifications are subjective matters of professional opinion best determined by members of the fund industry. Exhibit 2 at pp. 183-84. The SEC admitted that despite the uniform classification framework established by the Rule, "different funds may still classify the liquidity of similar investments differently, based on the facts and circumstances informing their analyses." *Id.* at p. 100. These variations "simply reflect[] ... that different funds likely have different views on liquidity based on considerations such as their assessment of various market, trading, and investment-specific factors, and the size of their position in a particular investment." *Id.* Finally, the Commission acknowledged that "liquidity can be difficult to estimate and that there is *no agreed-upon measure of liquidity* for all asset classes." *Id.* (emphasis added).

² This is the SEC's first Liquidity Rule enforcement action.

Despite these difficulties, the SEC implemented the Liquidity Rule.

E. The SEC Proposes to Amend the Core Provisions of the Rule

On November 2, 2022, six years after the Rule was promulgated and six months before filing this case, the SEC publicly announced its proposal to amend core provisions of the Liquidity Rule. The proposed amendments remove the subjective standard and establish objective minimum standards for classifying assets applicable to all funds, require all assets without an active, visible, and liquid market to be classified as illiquid, and eliminate the “less liquid” category, the precise classification that forms the basis for the SEC’s charges. SEC Release No. 33-11130, Nov. 2, 2022 at pp. 34-36 (Exhibit 3) (the “2022 Release”).

The SEC admitted that the “current rule allows funds *considerable discretion* in how funds determine the classification of investments.” *Id.* at p. 41 (emphasis added). For example, “[f]unds ... may use different reasonably anticipated trade sizes and have different standards for evaluating value impact.” *Id.* The SEC “observed that funds had varied approaches in their classifications processes.” *Id.* As a result, the Commission conceded that the subjective standard did not work and “a *more objective and comparable* framework” was needed.” *Id.* at p. 42 (emphasis added). The SEC disagreed with how more than 200 funds had used the “less liquid” classification, and it believed that those funds should have classified all of those “less liquid” assets as illiquid. *Id.* at p. 63.

F. The Fund’s Compliance with the Liquidity Rule

A year prior to the Liquidity Rule compliance date for the Fund, on June 11, 2018, the Fund filed with the SEC Form N-CSR, its annual shareholder report, for the year ended March 31, 2018. Compl., ¶ 67. The financial statement in the report was prepared in accordance with Generally Accepted Accounting Principles (“GAAP”) and identified the Fund’s assets, including

the Company shares. Pursuant to GAAP -- not the liquidity definitions in the Liquidity Rule -- the report informed investors that the Company shares were illiquid as there were no market quotations available for the shares. *Id.*; Exhibit 1 at p. 17-22. The Form N-CSR does not mention the Liquidity Rule or its definition of illiquid. *See* Exhibit 1.

On February 20, 2019, the SEC staff asked the Fund about the illiquid assets on the financial statement as they related to the classification categories referenced in the new Liquidity Rule. Compl., ¶ 73. According to the Complaint, the SEC's request was not shared with the Independent Trustees. *Id.* at ¶¶ 73-82. On April 2, 2019, the Fund responded to the SEC's request, but did not share its response with the Independent Trustees. *Id.* at ¶¶ 81-82. A series of discussions between Fund Management and Fund Counsel followed, none of which included the Independent Trustees. *Id.* at ¶¶ 83-99.

On May 29, 2019, Cuculich forwarded Williamson (but not Wadach) an email exchange between Fund Management and Fund Counsel asking whether the Company shares met the definition of an "illiquid investment" under the Rule. *Id.* at ¶¶ 100, 102. Between May 29, 2019, and June 10, 2019, Fund Management, Fund Counsel, and Trustee A engaged in numerous discussions as to how the Fund would classify the Company shares pursuant to the Liquidity Rule. None of these discussions involved the Independent Trustees. *Id.* at ¶¶ 103-122.

Fund Counsel and the Fund's auditors believed that the Company shares should be classified as illiquid as on the Form N-CSR prepared pursuant to GAAP, while Fund Management and Trustee A believed that the shares should be classified as "less liquid," as permitted by the new definition in the Liquidity Rule. *Id.* at ¶¶ 115, 123. Consistent with the SEC's view in the 2016 Release -- that liquidity classifications are subjective matters of opinion -- Fund Counsel informed Fund Management and Trustee A that "reasonable people could

disagree” with respect to the “less liquid” classification. *Id.* at ¶ 139. Consistent with their oversight obligations as defined in the Liquidity Rule, the Independent Trustees were not asked to approve the liquidity classification, were not involved in the liquidity determination, and did not approve the classification of the shares. *Id.* at ¶¶ 36-177.

The SEC notes one conversation on June 7, 2019, between Trustee A and Wadach regarding the classification of the Company shares during which Wadach stated that he was “inclined to agree with the auditors and outside counsel on the classification, but wanted to know ... Charlie’s [Williamson’s] opinion...” *Id.* at ¶ 123. Fund Counsel and the auditors believed that the Company shares were illiquid. *Id.* at ¶¶ 115, 123. The SEC does not allege any conversations with Williamson or any opinions he held.

As part of an on-going dialogue with the SEC that began in February 2019, the Fund sent the June 10, 2019 Letter to one staff member at the SEC *preliminarily* classifying the Company shares as “less liquid” pursuant to the category permitted by the new Liquidity Rule. *Id.* at ¶ 130. The letter stated that the Fund would present the basis for the classification to the Board in September 2019. Letter of Robert Cuculich to Ken Ellington, Re: Nysa Series Trust/Nysa Fund (June 10, 2019) (Exhibit 4). The “less liquid” preliminary classification was not approved by the Board. Compl., ¶ 123. The SEC does not allege that the Independent Trustees reviewed, approved, commented on, or even saw the letter before it was sent. *Id.* at ¶¶ 123-130.

G. The Board Meetings Following the June 10, 2019 Letter to the SEC
June 14, 2019

The Independent Trustees were informed, for the first time, that the Fund had preliminarily classified the Company shares as “less liquid” at the June 14, 2019 Board meeting, four days *after* the Fund sent the June 10, 2019 Letter to the SEC. *Id.* at ¶ 147. Fund

Management did not provide support for the “less liquid” classification at the meeting but, consistent with the June 10, 2019 Letter, promised to provide such support at the September 2019 Board meeting. *Id.* The Board was not asked to and did not approve the preliminary liquidity classification. *Id.* at ¶¶ 147-150. The Board appointed Pinnacle as the administrator of the LRMP and delegated the responsibility for implementing the program to Cuculich and Quilty. *Id.* The Board did not approve the LRMP and was not required to do so until December 2019. *Id.* at ¶¶ 31-32. Fund Counsel resigned her position at the meeting. *Id.* at ¶ 143.

September 13, 2019

At the September 13, 2019 Board meeting, Trustee A reviewed the sequence of events that led to the “less liquid” classification of the Company shares, but did not discuss the basis for the classification. *Id.* at ¶ 156. New Fund counsel (“New Fund Counsel”), who had just been engaged, expressed that he did not have an opinion as to the liquidity classification of the Company shares. *Id.* at ¶ 157. Wadach stated, as he had on June 7, 2019, that the Fund’s auditors believed that the Company shares were illiquid. Wadach also requested that the auditors, who were not at the meeting, provide an update as to their opinion on the classification. *Id.* at ¶ 158. New Fund Counsel and Quilty told the Board that they would discuss the liquidity classification with the Fund’s auditors and report back. *Id.* at ¶ 159. They did not speak to the auditors about the Company shares until December 30, 2019. *Id.*

December 13, 2019

At the December 13, 2019 Board meeting, the Board approved the LRMP. *Id.* at ¶ 163. On December 20, 2019, Trustee A, New Fund Counsel, and the Independent Trustees held an unscheduled meeting to discuss the liquidity classification. *Id.* at ¶ 168. Two days later, Cuculich and Quilty sent a memorandum to the Board regarding the “less liquid” classification

of the Company shares. *Id.* at ¶ 169. The memorandum stated the basis for the “less liquid” classification provided to the SEC in June 2019, but did not mention that the Company’s intellectual property purchase agreement had been terminated in October 2019. *Id.* at ¶ 170.

On December 23, 2019, the day after receiving the memorandum, the Board met to discuss the classification of the Company shares. *Id.* at ¶ 171. This, too, was not a regularly scheduled Board meeting. *Id.* On December 30, 2019, New Counsel and Quilty spoke to the Fund’s auditors about the liquidity classification, as requested by Wadach in September, and the auditors noted their belief that the Company shares were illiquid. *Id.* at ¶¶ 158, 172.

H. The Fund Files Form N-LIQUID

At the February 21, 2020, Board meeting -- after receiving the December 22, 2019 memorandum explaining the basis for the “less liquid” classification, attending the December 23, 2019 unscheduled board meeting, and discussing the Company shares with the auditors -- New Fund Counsel advised the Fund that it should consider classifying the Company shares as illiquid. *Id.* at ¶¶ 171-76. New Fund Counsel did not advise the Fund to file the Form N-LIQUID at that meeting, but rather stated that he would research and determine how the Fund should proceed. *Id.* In March 2020, the COVID pandemic began.

On May 22, 2020, New Fund Counsel suggested that Quilty review the LRMP to determine whether the Fund needed to file a Form N-LIQUID and suggested that they discuss the matter the following week. *Id.* at ¶ 180. Between May 22 and June 2, 2020, Quilty, Cuculich, and Trustee A decided that the Company shares should be classified as illiquid. The Independent Trustees did not participate in these discussions. *Id.* at ¶ 181. On June 2, 2020, New Fund counsel asked Quilty if he had scheduled a call with the trustees to discuss the Form N-LIQUID. *Id.* On June 9, 2020, Trustee A emailed the Independent Trustees, Cuculich, and

Quilty to inform them that he had already told the SEC that the Fund was classifying the Company shares as illiquid. *Id.* at ¶ 185. On June 16, 2020, the Fund submitted the non-public Form N-LIQUID to the SEC. *Id.* at ¶ 189.

At all relevant times, the Fund represented to its shareholders that the Company shares were illiquid. *Id.* at ¶ 195. The Fund's shareholders were not aware of the preliminary "less liquid" classification of the Company shares, nor were they ever told that the shares could be sold within the time-period proscribed by the Liquidity Rule definition of "less liquid." *Id.* The Fund's preliminary classification of the Company shares in the June 10, 2019 Letter -- to a single staff accountant in the SEC's Division of Investment Management -- forms the basis for this 2023 federal case.

III. ARGUMENT

The Complaint fails to state a claim against the Independent Trustees as it does not adequately plead any of the three required elements of aiding and abetting: substantial assistance, scienter, and a primary violation of the Act. 15 U.S.C. § 80a-47(b). First, the SEC's allegation that the Independent Trustees "allowed," by their undefined "oversight failure," the Fund's purportedly improper classification of the Company shares does not meet the pleading standard for substantial assistance. Compl., ¶¶ 4, 212. The Complaint fails to state that the Independent Trustees associated themselves with the Fund's alleged improper classification, participated in it as something they wished to bring about, and sought by their actions to make it succeed. Second, the SEC fails to allege that the Independent Trustees acted knowingly or recklessly in substantially assisting the preliminary classification. Specifically, the SEC fails to plead that the Independent Trustees knew of the primary violation (the classification), acted contrary to the standard of care under the Liquidity Rule, or were reckless with respect to a

purely subjective determination.

Third, the SEC neglects to plead a primary violation of the Liquidity Rule to support the aiding and abetting charge. The Liquidity Rule fails to provide adequate fair notice of the requirements necessary for compliance. In 2022, the SEC proposed amending core provisions of the Liquidity Rule and tacitly admitted that the Rule lacks clarity. The unclear Rule and the SEC's enforcement of it against the Independent Trustees violates constitutional fair notice requirements. In addition, the June 10, 2019 Letter preliminarily classifying the Company shares as "less liquid," was not required by the Liquidity Rule and cannot constitute a primary violation. Finally, the Liquidity Rule was improperly promulgated as the ICA strictly limits the SEC's rulemaking authority with respect to liquidity and the board's obligations with respect to it.

A. Motion To Dismiss Standard

A complaint must be dismissed pursuant to Federal Rule of Civil Procedure 12(b)(6) if it does not contain "enough facts to state a claim that is plausible on its face." *Bell Atl. Corp. v. Twombly*, 550 U.S. 544, 570 (2007). "A claim has facial plausibility when the plaintiff pleads factual content that allows the court to draw the reasonable inference that the defendant is liable for the misconduct." *SEC v. Apuzzo*, 689 F.3d 204, 207 (2d Cir. 2012) (citing *Ashcroft v. Iqbal*, 556 U.S. 662, 678 (2009)). Further, a complaint must contain more than unsupported legal conclusions. *See Twombly*, 550 U.S. at 555. Rather, it must state facts "sufficient 'to raise a right to relief above the speculative level.'" *ATSI Comm., Inc. v. Shaar Fund, Ltd.*, 493 F.3d 87, 98 (2d Cir. 2007) (quoting *Twombly*, 550 U.S. at 555).

In reviewing the Independent Trustees' motion to dismiss, "the court may consider only the complaint, documents attached to the complaint, matters of which a court can take judicial notice [such as public records], or documents that the plaintiff knew about and relied upon."

SEC v. Rio Tinto, 2019 WL 1244933 at *6 (S.D.N.Y. 2019) (citing *Chambers v. Time Warner, Inc.*, 282 F.3d 147, 152-53 (2d. Cir. 2002)); *see also Staehr v. Hartford Fin. Servs. Grp., Inc.*, 547 F.3d 406, 424 (2d Cir. 2008) (judicial notice is proper to establish that matters were publicly asserted, not for the truth of the assertions). “This may include SEC filings.” *Id.* (citing *Kramer v. Time Warner, Inc.*, 937 F.2d 767, 774 (2d. Cir. 1991)).

B. The SEC Fails to Adequately Plead the Elements of Aiding and Abetting

Section 48(b) of the Act states that, “any person that knowingly or recklessly provides substantial assistance to another person in violation of a provision of this Act or of any rule or regulation issued under th[e] Act, shall be deemed to be in violation of such provision to the same extent as the person to whom such assistance is provided.” 15 U.S.C. § 80a-47(b). To bring an action for aiding and abetting, the SEC must plead: (1) the existence of a securities law violation by the primary party; (2) knowledge of the violation on the part of the aider and abettor; and (3) substantial assistance by the aider and abettor in the achievement of the primary violation. *Apuzzo*, 689 F.3d at 211.³ The SEC fails to plead all three elements.

The SEC claims that the Fund (1) improperly classified the Company shares as “less liquid,” in its June 10, 2019 Letter to the SEC; (2) failed to periodically review the portfolio classifications; (3) failed to report that the Fund held more than 15% of its net assets in illiquid investments to the Board; and (4) failed to present the Board with a plan for reducing the “illiquid” assets. Compl., ¶ 216. The SEC alleges that the Independent Trustees aided and abetted the Fund’s allegedly improper classification of the Company shares as “less liquid” purportedly in violation of the Liquidity Rule. *Id.* at ¶¶ 212, 220-21.

³ The scienter element of aiding and abetting was changed pursuant to the Dodd-Frank Wall Street Reform and Consumer Protection Act of 2010 (“Dodd-Frank”) from “knowing” to “knowing or reckless” as currently stated in Section 48(b) of the ICA. 15 U.S.C. § 80a-47(b).

1. Substantial Assistance

a) The Board Did Not Assist the Liquidity Classification

The SEC fails to plead the “substantial assistance” element of the aiding and abetting claim against the Independent Trustees. The plain language of the Act is clear and requires that the aider and abettor “provide[] substantial assistance to another person in violation of a provision of [the] Act.” 15 U.S.C. § 80a-47(b). Courts “must enforce plain and unambiguous statutory language according to its terms.” *Hardt v. Reliance Standard Life Ins. Co.*, 560 U.S. 242, 251 (2011) (citing *Carcieri v. Salazar*, 555 U.S. 379, 387 (2009); *Jimenez v. Quarterman*, 555 U.S. 113, 118 (2009)). Assistance means the “act of helping or assisting someone,” and act means “to take *action* or move.” Merriam-Webster’s Online Dictionary, <https://www.merriam-webster.com/dictionary/act> (last visited July 10, 2023). Applying the plain language of the statute, substantial assistance requires the Independent Trustees to have acted to assist the violation. *See Hardt*, 560 U.S. at 251.

The Second Circuit agrees. “To satisfy the substantial assistance component of aiding and abetting, the SEC must show ... ‘that [the defendant] in some sort associated[d] himself with the venture, that [he] participate[d] in it as in something that he wished[d] to bring about, [and] that he [sought] by his action to make it succeed.’” *Apuzzo*, 689 F3d. at 206. A defendant must “consciously assist[] the commission of the crime in some active way” *Id.* at 212, n.8 (citing *United States v. Peoni*, 100 F.2d 401, 402 (2d Cir. 1938)). District Courts in the Second Circuit applying the *Apuzzo* standard, including *Apuzzo*, have uniformly relied upon active assistance to a primary violation -- not a failure to act, remediate, or oversee a violation -- to establish an aiding and abetting claim pursuant to the federal securities laws. *See Apuzzo*, 689 F.3d at 214 (defendant negotiated transactions designed to assist the fraud, signed documents, and approved

invoices)⁴; *cf. Rio Tinto*, 2019 WL 1244933, *16 (S.D.N.Y. 2019) (CFO’s “mere ‘failure to correct’ a [public] misleading statement” made to investors by the CEO, without more, does not establish the ‘substantial assistance’ “needed to plead an aiding and abetting claim”); *CFTC v. WorldWideMarkets, Ltd.*, 2022 WL 3535993, *19 (D.N.J. 2022) (defendant’s inaction and failure to disclose facts fall “far short of heroism,” but fail to support aiding and abetting charge).

To substantially assist, associate oneself, participate in, and seek to make something succeed necessarily requires the alleged aider and abettor to have taken or performed some action to assist the primary violation. *See* 15 U.S.C. § 80a-47(b); *Apuzzo*, 689 F.3d at 214 (consciously assist in “some active way”). The SEC’s allegation that the Independent Trustees “allowed,” by their undefined “oversight failure,” the Fund’s purportedly improper classification of the Company shares cannot satisfy this element. Compl., ¶¶ 4, 212. Put simply, the SEC cannot write language into the Act that Congress did not include -- a failure to act, remediate, or oversee the actions of others -- nor can it ignore the applicable law in this Circuit. *See, e.g., Lamie v. U.S. Trustee*, 540 U.S. 526, 538 (2004) (citing *Iselin v. United States*, 270 U.S. 245, 251 (1926) (basic canon of statutory interpretation prohibits reading words into statutes that Congress has left out)); *see also United States v. Locke*, 471 U.S. 84, 95 (1985) (requiring “deference to the supremacy of the Legislature, as well as recognition that Congressmen

⁴ *See also SEC v. Riel*, 282 F.Supp.3d 499, 524-25 (N.D.N.Y. 2017) (defendant made misrepresentations on website, in emails, and oral statements); *SEC v. Wey*, 246 F.Supp.2d 894, 929 (S.D.N.Y. 2017) (defendants facilitated reverse mergers, manipulated price of securities, and engaged in active concealment of fraud); *SEC v. China Northeast Petroleum Holdings, Ltd.*, 2014 WL 2767121 *12 (S.D.N.Y. 2014) (defendant signed and filed misleading documents); *SEC v. Subaye, Inc.*, 2014 WL 448414, *10-11 (S.D.N.Y. 2014) (CFO drafted, signed, and certified fraudulent SEC filings); *SEC v. Syron*, 934 F.Supp.2d 609, 636-37 (S.D.N.Y. 2013) (signing a sub-certification of disclosures defendants knew to be misleading was a “concrete, affirmative step”); *SEC v. Mudd*, 885 F.Supp.2d 654, 671 (S.D.N.Y. 2012) (defendant received, reviewed, commented on, and signed sub-certifications for false filings).

typically vote on the language of a bill”) (citing *Richards v. United States*, 369 U.S. 1, 9 (1962)).⁵ The SEC cannot pick up the pen where Congress put it down.

The SEC fails to allege any act or action by the Independent Trustees as required by the plain language of the statute and *Apuzzo*. The bald assertion that the Independent Trustees “allowed” the Fund to classify the Company shares as “less liquid,” through their purported lack of oversight (Compl., ¶¶ 4, 212), fails to plead, much less raise an inference, that the Independent Trustees associated themselves with the Fund’s classification, participated in that classification in some way, approved the classification, or sought by their actions to make the improper classification succeed. *See Apuzzo*, 689 F.3d at 206. The Complaint also fails to allege that the Independent Trustees consciously assisted the alleged violation in “some active” way. *See id.*

The SEC alleges that the Fund misclassified the Company shares as “less liquid” in the June 10, 2019 Letter that was sent to one SEC staff member as part of an ongoing dialogue with the SEC -- in which the Independent Trustees did not participate -- and that was not required by the Liquidity Rule. *See* Compl., ¶¶ 81-130; 17 C.F.R. § 270.22e-4. The SEC fails to allege that the Independent Trustees knew that the Fund had reached an opinion about the classification of the Company shares, or that it was sharing that opinion with a member of the SEC staff. *Id.* The June 10, 2019 Letter states that the Fund would not present its reasoning to the Board until September 2019, three months after the date of the June 10, 2019 Letter. Exhibit 4 at p. 2.

The Complaint does not allege that the Independent Trustees saw, reviewed, discussed, commented on, or signed the June 10, 2019 Letter. Nor does it allege that the Independent Trustees saw, reviewed, discussed or contributed in any way to the basis provided in the June 10,

⁵ In 2010, Congress amended the ICA pursuant to Dodd-Frank to add aiding and abetting liability where none had existed previously in the Act. 15 U.S.C. § 80a-47(b). Had Congress intended for liability to be premised on a failure to act, remediate, or oversee the actions of others it could have added such language to the statute, but it did not.

2019 Letter to support the preliminary classification. The SEC concedes, as it must, that the Fund made the preliminary classification without discussing it with the Independent Trustees, and that the Independent Trustees did not know that the Fund classified the shares as “less liquid” until the June 14, 2019 board meeting, four days after the June 10, 2019 Letter was sent to the SEC. Compl., ¶¶ 136, 147-148; Exhibit 4 at p. 2. The Fund never presented the classification to the Board for a vote, and the Board never voted on or approved the classification, nor was such approval required by the Liquidity Rule. *See* Compl., ¶¶ 123-179; 17 C.F.R. § 270.22e-4(b)(2)(i)-(iii). Accordingly, the SEC fails to plead that the Independent Trustees associated themselves with the classification, participated in it, and sought by their actions to make it succeed. *See Apuzzo*, 689 F.3d at 206.

The Independent Trustees did not learn of the Fund’s basis for the “less liquid” classification until they received a memorandum from Fund Management on December 22, 2019, six months after the Fund sent the June 10, 2019 Letter to the SEC. Compl., ¶ 168. Rather than failing to act, once the Independent Trustees learned the basis for the classification of the Company shares; they met the very next day to discuss the classification.⁶ *Id.* at ¶ 171. The next week, Fund Management and New Fund Counsel contacted the auditors, a request that Wadach made at the September 2019 Board meeting. *Id.* at ¶¶ 158, 172. At the next Board meeting, on February 21, 2020, New Fund Counsel advised the Fund to consider classifying the shares as “illiquid,” but added that he needed to research and determine how the Fund should proceed. *Id.* at ¶ 176. Accordingly, the Complaint does not allege that New Fund Counsel advised the Fund or the Trustees of *any action* that they were required to take. *Id.*

The COVID pandemic began a few weeks later. Between May 22 and June 2, 2020,

⁶ This was not a regularly scheduled Board meeting. Compl., ¶ 171.

Fund Management, New Fund Counsel, and Trustee A determined that the Company shares should be classified as “illiquid.” *Id.* at ¶ 181. Between May 29 and June 9, 2020, Trustee A and the SEC staff discussed the classification change. *Id.* at ¶¶ 182-184. On June 16, 2020, Fund Management submitted the Form N-LIQUID to the SEC and informed the Board of the submission. *Id.* at ¶¶ 188-190. The Independent Trustees did not engage in any discussions with the SEC or review the Form N-LIQUID before it was filed with the SEC. *See id.* at ¶¶ 181-190. They were not asked to -- and did not -- vote on or approve the Form. *Id.* Nor was such approval required by the Liquidity Rule. 17 C.F.R. § 270.22e-4(b)(2)(i)-(iii).

Rather than participating in the classification as something they wanted to bring about or help succeed, the Complaint alleges the exact opposite -- that the Independent Trustees *opposed* the classification. On June 7, 2019, six months before the Fund provided the Independent Trustees with a basis for the classification, Wadach reported to Trustee A that he was “inclined to agree with the auditors and outside counsel on the classification [that it was illiquid], but wanted to know what Charlie’s [Lawton Williamson’s] opinion was.” Compl., ¶ 123. Wadach reiterated his position at the September 19, 2019 board meeting, when he “stated that the Fund’s auditors opined to him that the Company Shares were “illiquid,” and he requested an update from the auditors, who were *not* in attendance at the meeting, as to their opinion on the classification.” *Id.* at ¶ 158. These facts do not allege an association with, participation in, or action to make the alleged improper classification succeed. *See Apuzzo*, 689 F.3d at 212.⁷

The SEC’s claim that the Independent Trustees aided and abetted the Fund’s purported

⁷ To the extent that the SEC claims that the Independent Trustees aided and abetted the Fund’s alleged failure to periodically review the portfolio classifications at least monthly, so too, the Complaint fails to include any facts regarding the lack of review, how the Independent Trustees associated themselves with, participated in, or sought by their actions to achieve a lack of review. A single conclusory paragraph fails to meet the pleading standard. Compl., ¶210. *See Twombly*, 550 U.S. at 555 (unsupported legal conclusions not enough).

violation must be dismissed as the Complaint fails to establish the substantial assistance element of the charge. The Independent Trustees, consistent with their obligations pursuant to the Liquidity Rule (17 C.F.R. § 270.22e-4(b)(2)(i)-(iii)), did not assist the Fund in classifying of the Company shares or in preparing the June 10, 2019 Letter. If anything, they actively discouraged the classification. The Complaint fails to allege that the Independent Trustees associated themselves with the Fund's classification, participated in it, or sought by their actions to make it succeed and, therefore, must be dismissed. *See Apuzzo*, 689 F.3d at 212 (conscious assistance in some active way required); *Rio Tinto*, 2019 WL 1244933, *16 (failure to correct public false statement not enough to plead aiding and abetting).

To hold otherwise would have serious implications for the securities industry. If inaction -- in the absence of legal obligations -- by board members can support aiding and abetting charges, every board member in America that happens to be associated with a primary violator of the federal securities laws could be liable to the same extent as the company they serve. With respect to the ICA, Congress never intended such a result.

b) The Board Was Not Required to Make or Change the Liquidity Classification

Even if inaction were enough to establish substantial assistance, and it is not, the SEC's assertion -- that the Independent Trustees had some inchoate oversight obligation that required them to perform some unspecified and undefined act pursuant to the Liquidity Rule, with respect to classifying the Company shares -- is wrong. The SEC claims that these unidentified Board oversight obligations arise from the Liquidity Rule itself and the 2016 Release. Compl., ¶¶ 24-25. Neither the Liquidity Rule nor the 2016 Release create any such requirement for the board -- inchoate or otherwise -- with respect to classifying the Fund's assets.

The Liquidity Rule specifically defines the oversight obligations of the board in the

section aptly named “board oversight,” and contains an exclusive list of oversight obligations for investment company boards. 17 C.F.R. § 270.22e-4(b)(2)(i)-(iii). Pursuant to the unambiguous, plain language of the Liquidity Rule, those obligations are: 1) approve the LRMP; 2) designate the LRMP administrator; and 3) review, no less frequently than annually, a written report prepared by the designee that addresses the operation of the program. *Id.* Separately, the Liquidity Rule requires the fund -- not the board -- to classify each of the fund’s portfolio assets into one of four categories determined solely by the number of days in which an asset could, as a matter of opinion, be sold, without reference to GAAP. 17 C.F.R. § 270.22e-4(b)(1)(ii). The Rule also requires the fund -- not the board -- to assess, manage, and periodically review liquidity risk. 17 C.F.R. § 270.22e-4(b)(1)(i).

The Liquidity Rule gives the board no role whatsoever with respect to classifying the assets or overseeing the Fund’s classifications under the Rule. *Id.* Although the plain language is clear and the inquiry should end there,⁸ the Commission stated in the Liquidity Rule’s adopting release that “... members of the fund industry are generally in the best position to provide current information on the conditions of fund liquidity since they are in the markets everyday trading securities and observe how markets are evolving and related liquidity characteristics are changing.” Exhibit 2 at pp. 183-184. Most importantly, the Commission conceded that,

...[W]ith respect to classifying the liquidity of portfolio investments, **neither our guidance nor the final rule** places the responsibility for determining whether a specific security is liquid or illiquid on the fund’s board.

⁸ *Kisor v. Wilkie*, 139 S.Ct. 2400, 2415 (2019) (“If uncertainty does not exist, there is no plausible reason for deference. The regulation then just means what it means—and the court must give it effect, as the court would any law.”); *Hughes Aircraft Co. v. Jacobson*, 525 U.S. 432, 438 (1999) (statutory interpretation “begins with the language of the statute and, when the statutory language provides a clear answer, it ends there as well”).

Id. at p. 127 (emphasis added). The 2016 Release then notes that the board’s responsibility is **limited** to approving the liquidity risk management plan and reviewing it annually. *Id.*

The plain language of the Liquidity Rule does not require the board to oversee the individual designee of the LRMP, the entity or individuals who determine whether an asset is liquid or illiquid, or the making of such determinations. 17 C.F.R. § 270.22e-4(b)(1) and (2)(i)-(iii). Nor does the Liquidity Rule require the Board to take any action with respect to asset classification. *Id.* “[T]he well-known canon of *expressio unius est exclusio alterius* -- ‘the express mention of one excludes the other,’ -- [must] guide [this] inquiry.” *See United States v. Merz*, 653 Fed.Appx. 72, 75 (2d Cir. 2016) (quoting *In re Lehman Bros., Inc.*, 791 F.3d 277, 288 (2d Cir. 2015)). The Liquidity Rule places three specific oversight obligations on the board. The express inclusion of these three oversight obligations excludes all others, including the unidentified and inchoate obligations urged by the SEC. *Id.*; *see also Kisor*, 139 S.Ct. at 2015 (when regulations are clear, they are interpreted the same as any law).

The SEC cannot create a board duty or obligation where the plain language of the Rule it seeks to enforce does not. *Id.* Nor can it interpret the Rule in manner that contradicts the SEC’s position as stated in the 2016 Release. *See Bittner v. United States*, 143 S.Ct. 713, 720-721 (2023) (citations omitted) (court declined to add language to a statute where not explicitly stated and contradicted by agency guidance); *Oteze Fowlkes v. Adamec*, 432 F.3d 90, 97 (2d Cir. 2005) (agency’s interpretation contradicted by the plain meaning of the regulation not entitled to deference); *see also Goldstein*, 451 F.3d 873, 883 (D.C. Cir. 2006) (“A statutory interpretation ... that results from an unexplained departure from prior [agency] policy and practice is not a reasonable one.”) (quoting *Northpoint Technology, Ltd. v. FCC*, 412 F.3d 145, 156 (D.C. Cir. 2005)). The SEC cannot, through an enforcement proceeding, create duties and obligations with

respect to the Independent Trustees that do not exist in the plain language of the Liquidity Rule. *See Merz*, 653 Fed.Appx. at 75 (basic canons of statutory interpretation do not permit courts to add language that is not there).

The Complaint pleads that the board met two of the three oversight obligations stated in the Liquidity Rule and acknowledged it was not required to meet the third. The Board approved the LRMP in December 2019 and designated the person(s) to administer the LRMP in June 2019. The third obligation is inapplicable because the Board was not required to review a written report until December of 2020, three months after the Fund was deregistered. Compl., ¶¶ 32, 150, 163; 17 C.F.R. § 270.22e-4(b)(2)(i)-(iii).⁹ Because the Complaint establishes that the Independent Trustees fulfilled their oversight obligations as defined in the Liquidity Rule and the 2016 Release, the aiding and abetting claim must be dismissed. *See Apuzzo*, 689 F.3d at 216 (in dicta, “[i]f the allegations were merely that [defendant] failed to report the fraud ... and if [defendant] lacked a duty to report, he would not be liable”); *Rio Tinto*, 2019 WL 1244933 at *16 (corporate officer not liable for aiding and abetting where he had no obligation to act).

As a way to circumvent the plain language of the Liquidity Rule, the SEC alleges that some unidentified “general oversight” requirements of the Board are outlined in the 2016 Release. Compl., ¶¶ 24, 25. The 2016 Release is neither binding on this Court nor enforceable against the Independent Trustees. *See Bittner*, 143 S.Ct. at 722 (agency guidance not controlling). Even if it were enforceable, the 2016 Release is consistent with the plain language of the Liquidity Rule. *Id.* (courts should take note when agency asks for an interpretation contrary to its own guidance). The SEC’s 2016 Release states that, “with respect to classifying the liquidity of portfolio investments, **neither our guidance nor the final rule** places the

⁹ Only registered funds are subject to the Liquidity Rule. 17 C.F.R. § 270.22e-4(a)(5).

responsibility for determining whether a specific security is liquid or illiquid on the fund’s board.” Exhibit 2 at 127 (emphasis added). The board’s obligations are limited to approving the LRMP and reviewing a report of that plan annually. *See id.*

The SEC’s more general statement in the 2016 Release that “the role of the board under the rule is one of general oversight, and consistent with that obligation [the SEC] expect[s] that directors will exercise their reasonable business judgment in overseeing the program [LRMP] on behalf of the Fund’s investors” does not expand the Rule’s definition of board oversight to classifying assets or overseeing those classifications. Compl., ¶ 24. Rather, this alleged “general oversight” obligation is limited by the Liquidity Rule’s requirement that the board review a report from Fund Management related to the LRMP annually. 17 C.F.R. § 270.22e-4(b)(2)(i)-(iii). The clear language of the Rule and the SEC’s specific guidance that the Rule does not require the board to determine liquidity cannot be ignored in favor of an interpretation that “establishes a convenient litigating position.” *See Kisor*, 139 S.Ct. at 2417. “Oversight” does not mean active involvement in liquidity classifications. The SEC perhaps could have written such board obligations into the Liquidity Rule, but it did not.¹⁰

c) The SEC’s Authority and Intentions are Clear from its Rule Drafting

Where the SEC has elected to confer affirmative obligations on investment company boards to oversee fund decisions, management, or designees it has explicitly included such requirements in the plain language of its rules. For example, the Act’s Valuation Rule, adopted

¹⁰ Even applying the broader language in the SEC’s guidance, the SEC does not allege that the Independent Trustees failed to exercise “reasonable business judgment,” with respect to their defined oversight obligations as stated in the Liquidity Rule. Rather, the SEC insists that they should have undertaken some unidentified and unrequired action with respect to the Fund’s liquidity classification that is not required by the Rule or the 2016 Release.

just four years after the Liquidity Rule, requires boards to “determine fair value in good faith for any and all fund investments.” 17 C.F.R. § 270.2a-5(b). The board may designate its fair value responsibilities to another, but the Rule requires the board to “oversee[] the valuation designee” and “evaluate the matters covered in the [designee’s] report.” 17 C.F.R. § 270.2a-5(b)(1). The Liquidity Rule does not contain any such language and, thus, it must be interpreted that the Commission did not intend to -- *and could not* -- place similar obligations on fund boards with respect to liquidity determinations. *See Bittner*, 143 S.Ct. at 720-21 (language included in one section of law, but excluded from another is understood to be intentional and have meaning); *Merz*, 653 Fed.Appx. at 75 (the express mention of one excludes the other).¹¹

“Agencies have only those powers given to them by Congress and enabling legislation is not generally an open book to which an agency may add pages and change the plot line.” *West Virginia v. EPA*, 142 S.Ct. 2587, 2609 (2022). “An agency construction of a statute cannot survive judicial review if a contested regulation reflects an action that exceeds the agency’s authority.” *Goldstein v. SEC*, 451 F.3d at 881 (citing *Aid Ass’n for Lutherans v. United States Postal Serv.*, 321 F.3d 1166, 1174 (D.C. Cir. 2003)) (SEC’s Hedge Fund Rule vacated where it contravened plain language of Investment Advisers Act); *see also Financial Planning Ass’n v. SEC*, 482 F.3d 481, 488 (D.C. Cir. 2007) (SEC Broker-Dealer Rule improper as it conflicted with plain text of Investment Advisers Act).

The SEC did not write the Liquidity Rule in the same way that it wrote the Valuation Rule because it was not authorized to do so. Where Congress intended to place affirmative

¹¹ The Derivatives Rule is another example of the SEC’s intent with respect to board obligations. *See* 17 C.F.R. § 270.18f-4(c)(3). Like the Liquidity Rule, the Derivatives Rule includes a section named “Board Oversight” that does not require the board to play a role in managing the fund’s derivatives positions. The Derivatives Rule, like the Liquidity Rule, requires the board to designate a risk manager but not manage the designee or the positions.

obligations on investment company boards to oversee fund decisions, it has clearly specified such requirements in the plain language of the ICA.¹² For example, the Act specifically creates obligations for fund boards with respect to the valuation of fund assets, an assessment that is wholly separate from liquidity.¹³ The SEC's Valuation Rule is consistent with the requirements that Congress placed upon fund boards pursuant to the ICA. Section 2(a)(41) of the Act requires investment company boards to determine, in good faith, the fair value of a fund's securities that are not subject to market quotations. 15 U.S.C. § 80a-2(a)(41). Congress also specifically granted the SEC rulemaking authority with respect to the board's involvement in fair value determinations. *Id.* Pursuant to this statutory authority, the SEC promulgated the Valuation Rule. 17 C.F.R. § 270.2a-5(b).

The Act contains no such language conferring obligations on fund boards with respect to liquidity and no authority, as discussed below, to promulgate related rules. Unlike the Act's specific reference to valuation and the board's role, the Act does not even include the word "liquidity." "When Congress includes particular language in one section of a statute and omits it from a neighbor, the Court normally understands that difference in language to convey a difference in meaning (*expressio unius est exclusio alterius*)." *See Bittner*, 143 S.Ct. at 720. The SEC cannot, through this enforcement action, insert language into the Liquidity Rule to match the language of the Valuation Rule when the Act does not grant the SEC the same authority. *Id.*

¹² This makes sense. The SEC estimates that, at the end of 2021, 102.6 million Americans owned mutual funds and that there were approximately 11,488 open-end funds holding approximately \$26 trillion in net assets subject to the Liquidity Rule. 2022 Release at 264-65. Placing substantive requirements on more than 11,000 boards of an equal number of investment vehicles that play a major role in the financial planning of many Americans is best left to Congress. *See West Virginia*, 142 S.Ct. at 2596.

¹³ Valuation is what a security is worth, *see* 15 U.S.C. § 80a-2(a)(41), while liquidity is the time-period in which it can be expected to be sold. *See* 17 C.F.R. § 270.22e-4(a)(6), (8), (10), (12).

This common-sense application of the “canons of statutory interpretation,” the “separation of powers,” and a “practical understanding of legislative intent,” renders the SEC’s interpretation and enforcement of the Liquidity Rule against the Independent Trustees through an aiding and abetting claim improper. *See West Virginia*, 142 S.Ct. at 2607-08.

Finally, even if inaction through a lack of undefined oversight were enough to support the substantial assistance element, *and it is not*, the SEC fails to identify the purportedly required action or board oversight obligation that substantially assisted the alleged violation. The SEC fails to allege any specific action that the Independent Trustees were required to and failed to take that associated themselves with the “less liquid” classification, approved it, participated in it, or made it succeed. *See Apuzzo*, 689 F.3d at 214. The SEC’s conclusory allegation that the Independent Trustees “allowed” the Fund’s classification by not providing some unidentified oversight (Compl., ¶¶ 4, 212.), that is not defined by the Liquidity Rule, fails to meet the pleading standard. *See id.* at 207 (complaint lacking factual content cannot survive motion to dismiss).¹⁴

2. The Independent Directors Did Not Act Knowingly or Recklessly

The Commission similarly fails to plead that the Independent Trustees acted knowingly or recklessly *See* 15 U.S.C. § 80a-47(b). The scienter required pursuant to Section 48(b) and *Apuzzo* is knowledge of or recklessness regarding “the primary violation.” *See Apuzzo*, 689 F.3d at 214; 15 U.S.C. § 80a-47(b). Recklessness is “conduct which is highly unreasonable and

¹⁴ The SEC’s case against the Independent Trustees further disregards Congress’ intent. Section 36(a) of the ICA imposes liability upon investment company directors only where they engage in personal misconduct. *See* 15 U.S.C. § 80a-35(a). The SEC did not charge the Independent Directors with violating Section 36(a), nor could they based upon the facts in the Complaint. The SEC cannot evade the requirements of Section 36(a), by alleging aiding and abetting based upon a failure to act pursuant to obligations that do not exist in the Liquidity Rule.

which represents an extreme departure from the standards of ordinary care.” *SEC v. Obus*, 693 F.3d 276, 286 (2d Cir. 2012). Mere negligence is insufficient. *Id.* The SEC fails to plead the scienter element as the Independent Trustees: (1) were unaware of the primary violation; (2) complied with the standard of care required them under the Liquidity Rule; and (3) cannot be reckless with respect to subjective determinations.

First, as discussed *supra*, the Complaint fails to allege that the Independent Trustees knew that the Fund classified the Company shares as “less liquid” in its June 10, 2019 Letter to an SEC staff member, or that they knew the basis for that classification. Compl., ¶¶ 81-130. The Independent Trustees could not have knowingly or recklessly substantially assisted an alleged violation that they did not know occurred. Relatedly, the SEC’s allegation in a single line of an over 200-paragraph complaint (Compl., ¶ 212) that the Independent Directors acted recklessly by disregarding that the Company shares were illiquid for financial statement purposes cannot meet the pleading standard in a case alleging a violation of the Liquidity Rule. Knowledge that the Company shares were designated illiquid in the Fund’s financial statements pursuant to GAAP does not establish knowledge of the alleged primary violation, that the Fund misclassified the shares in the June 10, 2019 Letter pursuant to the Liquidity Rule’s wholly separate criteria. *See Apuzzo*, 689 F.3d at 214; 15 U.S.C. § 80a-47(b); Exhibit 1.¹⁵

Second, the standard of ordinary care for fund boards with respect to the Liquidity Rule is defined in the *board oversight* provision of the Liquidity Rule. 17 C.F.R. § 270.22e-4(b)(2)(i)-

¹⁵ The financial statement designation of the Company shares as illiquid is of no consequence to the Liquidity Rule classification. The June 10, 2019 Letter did not classify the shares as liquid, but rather as “less liquid,” pursuant to the definition stated in the new Liquidity Rule. The financial statements were prepared in accordance with GAAP and describe the Company shares as illiquid because market quotations were not readily available. They were not based upon the Liquidity Rule’s definition of “illiquid,” which is related solely to the time required to sell the asset. Exhibit 1 at pp. 17-22 (“Restricted Securities”).

(iii). As discussed above, the SEC concedes that the Independent Trustees complied with those standards. Compl., ¶¶ 32, 150, 163. Hence, they could not have acted recklessly, much less knowingly, with respect to the Fund’s alleged violation of the Liquidity Rule.

So, too, the Independent Trustees knew that the Company shares had routinely been designated as illiquid in the Fund’s financial statements and, thus, Fund investors were fully aware of the status of the asset. Compl., ¶ 195. Investors never saw the June 10, 2019 Letter to the SEC or knew about the “less liquid” preliminary classification contained in the letter. Any inaction by the Independent Trustees with respect to the June 10, 2019 Letter preliminarily classifying the Company shares as “less liquid,” fails to establish the highly unreasonable conduct that constitutes an “extreme departure from the standards of ordinary care” that is required to plead recklessness. *See Obus*, 693 F.3d at 286.

Third, even if inaction could support an aiding and abetting claim, and it cannot, recklessness cannot be adequately pled where, as here, “reasonable people can disagree” (Compl., ¶ 139) over the determination that gives rise to the primary violation. *See In re Bank of Am. AIG Discl. Sec. Litig.*, 980 F.Supp.2d 564, 586 (SDNY 2013), *aff’d*, 566 F.App’x 93 (2d Cir. 2014). The SEC has admitted that “despite the uniform classification framework established by the Rule, different funds may classify the liquidity of similar investments differently.” Exhibit 2 at 100. The SEC acknowledges that “liquidity can be difficult to estimate and that there is *no agreed-upon measure of liquidity* for all asset classes.” *Id.* (emphasis added). The Complaint makes this clear as it notes that Fund Counsel told Fund Management that “reasonable people can disagree” on the classification of the Company shares. Compl., ¶ 139. The 2016 Release and Fund Counsel’s comment establish that the SEC cannot plead that the Independent Trustees

acted recklessly. *See In re Bank of Am. AIG*, at 980 F.Supp.2d at 586.¹⁶

While “a high degree of actual knowledge of the primary violation,” may lessen the SEC’s burden in proving substantial assistance, and “a high degree of substantial assistance to the primary violation” may lessen its burden in proving scienter, neither circumstance is present in this case. *See Apuzzo*, 689 F.3d at 214-15. The Independent Trustees were unaware that the Fund was sending the June 10, 2019 Letter until after it was sent and were not informed of the basis for the “less liquid” classification for another six months. Hence, the SEC’s burden to allege some form of substantial assistance beyond their Board service remains high and, as discussed above, has not been met. Conversely, sitting on the Board and fulfilling the obligations in the plain language of the Liquidity Rule does not reduce the SEC’s burden of proving scienter. No matter how you look at the elements and the Complaint, the SEC fails to plead aiding and abetting. Accordingly, the claim must be dismissed with prejudice.

3. The SEC Fails to Plead a Primary Violation of the Rule

a) The Liquidity Rule Fails to Provide Fair Notice

The SEC’s one-of-a-kind enforcement action against the Independent Trustees for aiding and abetting the Liquidity Rule fails to comply with the fair notice requirement of due process. The SEC has proposed material amendments to core provisions of the Liquidity Rule in tacit admission that the Rule lacks clarity. Exhibit 3 at pp. 40-65. The SEC is proposing to amend all three provisions of the Rule at issue in this case. The SEC intends to (1) change the subjective classification standards to objective minimum standards applicable to all funds; (2) remove the

¹⁶ The SEC has always maintained that liquidity classifications are matters of opinion. Exhibit 2 at pp. 183-84. Indeed, 200 funds, in the SEC’s view, improperly applied the “less liquid” classification. Exhibit 3 at p. 63. The Independent Trustees could not have acted recklessly where, as here, the Liquidity Rule lacked sufficient clarity to guide the industry and was always subject to disparate application with respect to asset classifications. Exhibit 2 at p. 100.

“less liquid classification” category from the Rule; and (3) require all assets with no active, visible, or liquid market, such as the Company shares, to be classified as illiquid. *Id.* at pp. 41-44. The SEC cannot sue the Independent Trustees for aiding and abetting the Liquidity Rule where the agency admits that the Rule’s core provisions lack clarity and require change.

“Due process requires that ‘laws give the person of ordinary intelligence a reasonable opportunity to know what is prohibited.’” *Upton v. SEC*, 75 F.3d 92, 98 (2d Cir. 1996) (quoting *Grayned v. City of Rockford*, 408 U.S. 104, 108 (1972)).¹⁷ A law can be impermissibly vague in one of two ways. “First, if it fails to provide people of ordinary intelligence a reasonable opportunity to understand what conduct it prohibits. Second, if it authorizes or even encourages arbitrary and discriminatory enforcement.” *Copeland v. Vance*, 893 F.3d 101, 114 (2d Cir. 2018) (quoting *Hill v. Colorado*, 530 U.S. 703, 732 (2000)); *see also Farrell v. Burke*, 449 F.3d 470, 485 (2d Cir. 2006). Whether a law is impermissibly vague is an objective inquiry. *Copeland*, 893 F.3d at 114. *See also Dickerson v. Napolitano*, 604 F.3d 732, 745-46 (2d Cir. 2010).

The SEC’s extensive proposed changes to core provisions of the Liquidity Rule, including the three provisions at issue here, show that the Rule failed to provide the industry with adequate notice of the subjective determinations that would violate the Rule. Moreover, charging the Independent Trustees of one fund out of 200 that, in the SEC’s opinion, allegedly misapplied the subjective criteria that the SEC admits lacked clarity, demonstrates that the Liquidity Rule is subject to arbitrary and uncertain enforcement. Exhibit 3 at pp. 40-65.

In *Upton*, there was substantial uncertainty in the interpretation and application of SEC

¹⁷ “This principle applies ... less forcefully ... if the rule in question carries only civil rather than criminal penalties [and]. . . [t]he ‘reasonable opportunity’ standard does not demand that regulations ‘achieve meticulous specificity’; they ‘may instead embody flexibility and reasonable breadth.’” *SEC v. Morningstar Credit Ratings, LLC*, 578 F. Supp. 3d 563, 572 (S.D.N.Y. 2022) (quoting *Rock of Ages Corp. v. Sec’y of Labor*, 170 F.3d 148, 156 (2d Cir. 1999)).

Rule 15c3–3(e), 17 C.F.R. § 240.15c3–3(e), that led to disparate application of the rule in an enforcement context. *Upton*, 75 F.3d at 98 (“Because there was substantial uncertainty in the Commission’s interpretation of Rule 15c3–3(e), Upton was not on reasonable notice that [his firm’s] conduct might violate the Rule”). The Commission was aware that brokerage firms were improperly applying Rule 15c3–3(e) and took no steps to advise the public that it believed the practice was questionable before charging Upton. *See id.* at 97–98. The same is true here.

The SEC concedes that the Liquidity Rule allowed funds “considerable discretion” in how to classify assets. Exhibit 3 at p. 41. In 2016, the SEC admitted that despite the uniform classification framework, “different funds may still classify the liquidity of similar investments differently, based on the facts and circumstances informing their analyses.” Exhibit 2 at p. 100. These variations “simply reflect[] ... that different funds likely have different views on liquidity...” *Id.* Finally, the Commission acknowledged that “liquidity can be difficult to estimate and that there is *no agreed-upon measure of liquidity* for all asset classes.” *Id.*

Not surprisingly, in 2020 and 2021, the SEC observed a disparity in how funds were classifying assets pursuant to the subjective criteria included in the new Liquidity Rule. Exhibit 3 at pp. 41-42. This was a result that the SEC fully appreciated and communicated to the industry in 2016. Exhibit 2 at p. 100. The SEC’s recognition of the limitations of the subjective criteria, in 2016, conveyed to the industry that the SEC would tolerate disparities in application and allow deference to fund management in classifying assets.

On November 2, 2022, under new leadership, the SEC publicly announced that it would no longer tolerate the disparity caused by the subjective standards. Exhibit 3 at pp. 41-42; 58-59. Specifically, the SEC disagreed with how more than 200 funds had applied the “less liquid” classification and believed that those funds should have classified all of those “less liquid” assets

as illiquid. *Id.* at p. 63. Hence, the SEC proposed to amend the Rule to eliminate the “less liquid” category and replace the subjective standards for asset classification with objective minimum standards applicable to all funds. *Id.* at pp. 41-42; 58-59. Further, the SEC stated that assets with “no active, visible, and liquid market,” such as the Company shares, must be categorized as illiquid, consistent with accounting standards. *Id.* at pp. 63-65. This new inflexible interpretation of the Liquidity Rule was never communicated to the industry before the conduct at issue in this case. *See Upton*, 75 F.3d at 98.

This case is based upon all three of the changes that the SEC is proposing to make to the Liquidity Rule -- the “less liquid” classification, the subjective criteria, and conforming the illiquid asset classification to accounting standards. The SEC cannot, under constitutional standards of fair notice, sue the Independent Trustees on the precise provisions of a rule that it now admits must be amended due to a lack of clarity in standards, disparate application across funds, and the SEC’s belated desire to achieve consistency with the accounting rules.

The SEC took no steps to advise, clarify or provide clear guideposts to funds regarding its changing views of the core provisions of the Liquidity Rule prior to 2019, the year of the conduct alleged in the Complaint. The SEC also failed to notify the industry that subjective judgment would not be tolerated and could result in enforcement actions where, as here, the SEC disagreed with a fund’s opinion with respect to an asset classification that was inconsistent with GAAP.

Rather than focus on properly informing the industry and amending the Liquidity Rule, the SEC chose to charge the Independent Trustees of just one of the 200 funds that the SEC believes improperly classified assets as “less liquid.” The SEC cannot satisfy the “fair notice requirement” of due process where, as here, it bases its charges on the three provisions of a rule that the SEC is seeking to change simply because in hindsight it did not agree with how the

former Commission had written the rule and how the industry applied the agency's own subjective criteria. Exhibit 3 at pp. 40, 63. As the SEC has failed to meet its fair notice requirement with respect to the Liquidity Rule, the aiding and abetting charges against the Independent Trustees must be dismissed.

b) The June 10, 2019 Letter Is Not a Violation of the Liquidity Rule

Separate from the lack of fair notice, the case must be dismissed because the Complaint fails to state a primary violation of the Rule. The primary violation of the Liquidity Rule is based upon the SEC's claim that the Fund (1) improperly classified the Company shares as "less liquid," in the June 10, 2019 Letter; (2) failed to periodically review the classification; (3) failed to report that the Fund held more than 15% of its net assets in illiquid investments to the board; and (4) failed to present the board with a plan for reducing the "illiquid" assets. Compl., ¶ 216. The Independent Trustees are alleged to have aided and abetted the Fund's violation of the Rule as to the Fund's classification of the Company shares as "less liquid." *Id.* at ¶¶ 212, 220-221.

The Liquidity Rule requires the Fund to classify its assets pursuant to four separate liquidity classifications. 17 C.F.R. § 270.22e-4(b)(1). The Rule does not require the Fund to send letters to the SEC staff discussing their preliminary asset classifications. The June 10, 2019 Letter was sent to one SEC staff member as part of a dialogue between the Fund and the SEC that began prior to the Fund's compliance with the Liquidity Rule and was not as part of any public filing or submission required by the Rule. The June 10, 2019 Letter, containing the Fund's preliminary opinion as to the classification of the Company shares, is not a primary violation of the Liquidity Rule and, therefore, cannot support the aiding and abetting charge against the Independent Trustees. *See* Exhibit 4.

Rather, Rule 30b1-10 of the Act required the Fund to report on Form N-LIQUID when more than 15% of the Fund's net assets were illiquid. 17 C.F.R. § 270.30b1-10. The Form N-

LIQUID, not the informal June 10, 2019 Letter to the SEC preliminarily classifying the Company shares, is the submission that the Fund was required to make with respect to the Liquidity Rule. The Fund filed the Form N-LIQUID on June 16, 2020, and thus complied with the Rule. Rule 30b1-10 provides no role for the board. Appropriately, the SEC has not charged the Independent Trustees with aiding and abetting the Rule 30b1-10 violation. Because the June 10, 2019 Letter cannot serve as a primary violation of the Liquidity Rule, the aiding and abetting claim against the Independent Trustees must be dismissed.

c) The Liquidity Rule Exceeds the SEC's Statutory Mandate

The SEC fails to plead a primary violation of the Liquidity Rule because the Rule exceeds the agency's statutory mandate. The SEC promulgated the Liquidity Rule pursuant to alleged authority contained in Sections 22(c) and (e) of the Act. Exhibit 2 at p. 436. The stated purpose was to reduce the risk that funds would be unable to meet the seven-day redemption requirement pursuant to Section 22(e) of the Act and dilution concerns. *Id.* at p. 1; Compl., ¶ 22. The plain language of Sections 22 (c) and (e) are clear with respect to the SEC's rulemaking authority and they do not grant the SEC power to promulgate the Liquidity Rule or impose liquidity obligations on the Independent Trustees. *See Goldstein*, 451 F.3d at 873 (SEC's Hedge Fund Rule vacated where it contravened plain language of the Investment Advisers Act).

Courts review an agency's authority to promulgate rules under a two-step process: (1) whether Congress has directly spoken on the issue in the statute and if so, that ends the inquiry; and (2) only if the statute is silent or ambiguous, whether the agency's interpretation of the statute is reasonable. *See Financial Planning Ass'n v. SEC*, 482 F.3d 481, 487 (D.C. Cir. 2007) (citing *Chevron, U.S.A., Inc. v. Natural Res. Def. Council, Inc.*, 467 U.S. 837, 842–43 (1984) (SEC's Broker Rule vacated as promulgated without authority under Investment Advisers Act)). Step one resolves the issue as the ICA narrowly circumscribes the SEC's rulemaking authority

with respect to fund redemptions and does not mention liquidity or board involvement in liquidity determinations. *Id.* at 488 (“plain meaning of legislation should be conclusive” unless demonstrably at odds with Congressional intent) (internal citations omitted).¹⁸

Section 22(e) of the Act requires registered investment companies to redeem investor fund shares in seven days or less. 15 U.S.C. § 80a-22(e). The Act provides three exceptions to this seven-day redemption requirement: (1) when the New York Stock Exchange is closed for other than customary closures or *during which trading is restricted*; (2) *in an emergency*; or (3) for such period that the SEC determines to protect security holders. 15 U.S.C. § 80a-22(e)(1)-(3) (emphasis added). With respect to these three exceptions, Section 22(e) strictly limits the SEC’s rulemaking to: (1) identifying the conditions under which trading shall be deemed *restricted*; and (2) determining when an *emergency* shall be deemed to exist. *Id.* (emphasis added).

These rulemaking grants do not permit the requirements found in the Liquidity Rule and, most importantly, the provisions applicable to boards. The SEC cannot ignore the limitations found in Section 22(e) of the Act to justify the Liquidity Rule. “To read out of a statutory provision a clause setting forth a specific condition or trigger to the provision’s applicability is ... an entirely unacceptable method of construing statutes.” *Financial Planning Ass’n*, 482 F.3d at 488 (quoting *Natural Res. Def. Council v. EPA*, 822 F.2d 104, 113 (D.C. Cir.1987)).

Section 22(c) of the Act allows the SEC to promulgate rules permitted by Section 22(a). 15 U.S.C. §§ 80a-22(a) and (c). Section 22(a) addresses the circumstances in which a member of a registered securities association (*i.e.*, FINRA) may trade with a registered investment company. 15 U.S.C. § 80a-22(a). Section 22(a) permits a registered securities association to promulgate

¹⁸ Federal courts have struck down other SEC rules in the investment management area that exceeded the statutory authority granted to the SEC or were unconstitutional. *See Goldstein*, 451 F.3d at 881-82; *Financial Planning Ass’n*, 482 F.3d at 487; *National Ass’n of Manufacturers v. SEC*, 800 F.3d 518 (D.C. Cir. 2015) (Conflict Minerals Rule violated First Amendment).

rules that address the method of computing the minimum and maximum prices at which its members may trade securities with investment companies, and the minimum amount of time that must elapse after sales of such securities. *Id.* Methods of computing prices and setting time restrictions do not permit the SEC to regulate a fund's liquidity or impose liquidity obligations on fund boards. These congressional limitations must be followed. *See Financial Planning Ass'n*, 482 F.3d at 488; *see also Goldstein*, 451 F.3d 881-82 (SEC's rules cannot defy plain language of the statute).

The SEC cannot rely upon the Act's general rulemaking provision in Section 38(a) to justify the Liquidity Rule. Section 38(a) limits the SEC's rulemaking to exercise powers granted elsewhere in the Act, to define accounting, technical and trade terms, or to proscribe forms. 15 U.S.C. § 80a-37(a). Such powers to define and regulate liquidity are not found elsewhere in the Act as discussed above. Moreover, the Liquidity Rule is not a definition or form. Finally, the SEC cannot rely on a general rulemaking provision while ignoring the specific rulemaking limitations in Sections 22(a), (c), and (e) of the Act. *See Financial Planning Ass'n*, 482 F.3d at 493 (SEC cannot rely on general rulemaking provision where it suggests no intention by Congress to ignore plain language elsewhere in statute).

C. The Complaint Should Be Dismissed With Prejudice

Dismissal with prejudice is appropriate if the flaws in a pleading are "incurable." *Kling v. World Health Org.*, 532 F. Supp. 3d 141, 154 (S.D.N.Y. 2021) (internal quotation marks omitted). "No amount of detail can save [a] complaint when," as in this case, "the detail is based on flawed and unreasonable methodologies that lead to unsupported conclusions." *First Nationwide Bank v. Gelt Funding Corp.*, 27 F.3d 763, 772 (2d Cir.1994) (citations omitted).

The SEC filed a nearly 44-page Complaint after an investigation, which involved review

of any documents and testimony from any witnesses that the SEC saw fit, including both Independent Trustees. There are no facts currently unknown to the SEC that could save the Complaint. Dismissal of the Complaint with prejudice is warranted because the SEC's claims are based on flawed and unreasonable legal theories and unsupported legal conclusions that an amended pleading cannot fix.

IV. **CONCLUSION**

For the foregoing reasons, the Complaint should be dismissed with prejudice as to the Independent Trustees.

Dated: July 11, 2023

Respectfully submitted,

STRADLEY RONON STEVENS & YOUNG, LLP

s/ Jan M. Folena

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EXHIBIT 1

N-CSR 1 nysancsr.htm

UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
WASHINGTON, D.C. 20549

FORM N-CSR

**CERTIFIED SHAREHOLDER REPORT OF REGISTERED MANAGEMENT
INVESTMENT COMPANIES**

Investment Company Act file number 811-07963

The NYSA Series Trust

(Exact name of registrant as specified in charter)

507 Plum Street Suite 120

Syracuse, New York 13204

(Address of principal executive offices)(Zip code)

Robert Cuculich

Pinnacle Advisors LLC

507 Plum Street Suite 120

Syracuse, New York 13204

(Name and address of agent for service)

Registrant's telephone number, including area code: (315) 251-1101

Date of fiscal year end: March 31

Date of reporting period: March 31, 2018

Form N-CSR is to be used by management investment companies to file reports with the Commission not later than 10 days after the transmission to stockholders of any report that is required to be transmitted to stockholders under Rule 30e-1 under the Investment Company Act of 1940 (17 CFR 270.30e-1). The Commission may use the information provided on Form N-CSR in its regulatory, disclosure review, inspection and policymaking roles.

A registrant is required to disclose the information specified by Form N-CSR, and the Commission will make this information public. A registrant is not required to respond to the collection of information contained in Form N-CSR unless the Form displays a currently valid Office of Management and Budget ("OMB") control number. Please direct comments concerning the accuracy of the information collection burden estimate and any suggestions for reducing the burden to Secretary, Securities and Exchange Commission, 450 Fifth Street, NW, Washington, DC 20549-0609. The OMB has reviewed this collection of information under the clearance requirements of 44 U.S.C. § 3507.

Item 1. Reports to Stockholders.

Nysa Fund

A SERIES OF NYSA SERIES TRUST

(NYSAX)

ANNUAL REPORT MARCH 31, 2018

This report is provided for the general information of the shareholders of the Nysa Fund. This report is not intended for distribution to prospective investors in the Fund, unless preceded or accompanied by an effective prospectus.

NYSA FUND

SHAREHOLDER LETTER**MARCH 31, 2018 (UNAUDITED)**

Dear Shareholder,

During the reporting period, the Nysa Fund produced a positive return of 21.53% (without sales charge), outperforming the S&P 500® Index which returned 11.77% during the same period. We attribute the positive performance of the Fund primarily due to the appreciation of the Fund's largest position, Ligand Pharmaceuticals and various stock positions in the information technology sector. At the same time, we acknowledge that the substantial portion of the portfolio invested in two illiquid securities during the reporting period limited the flexibility of the portfolio manager.

The Fund's performance is compared to that of the S&P 500® Index, an unmanaged index of large-capitalization equity securities that is a measure of the general domestic stock market. Nysa Fund is an actively managed fund that does not seek to replicate the same holdings or performance of a specific index, including its benchmark index. While index comparisons may be useful to provide a benchmark for the Fund's performance, it must be noted that the Fund's investments are not limited to the investments comprising the S&P 500® Index, and that the Fund may invest in equities, or fixed income, regardless of the market capitalization of a particular issuer. Index performance includes reinvestment of income, but does not reflect transaction costs, fees, expenses or taxes. Index performance is shown for illustrative purposes only as a benchmark for the Fund's performance, and does not predict or depict performance of the Fund. The Fund's performance reflects the effects of the Fund's business and operating expenses. The investment focus during the most recent reporting period was not limited by considerations of market capitalization, and the portfolio included companies in the small-, mid-, and large-cap categories. We do not attribute the performance of the Fund to the size of the issuers, but rather to the selection of companies in sectors that performed well in the reporting period.

Market Overview

During the final quarter of the 2018 fiscal year, the volatility of the domestic equity market intensified, even though many companies posted some of their best earnings reports in years. The unemployment rate continued its steady decline from 4.5% to 4.1% during the reporting period, which demonstrates the current resilience in the labor market and the expectation of future wage growth. In anticipation of this economic growth, the Federal Reserve incrementally raised interest rates three times during the reporting period, to a level of 1.50-1.75%. This measured approach appears to signal an optimistic view of the domestic economy which takes into account the potential for inflationary pressures.

Innovations, most notably in the healthcare and information technology sectors, continue to be major contributors in the creation of companies that will change the way we live. New drugs in the biotechnology and pharmaceutical industries, advances in the technology sector, and many other disruptive innovations have contributed to much of the forward momentum in the domestic equity markets. We will continue our efforts to identify issuers in these various sectors that have significant growth potential. These

NYSA FUND

SHAREHOLDER LETTER (CONTINUED)
MARCH 31, 2018 (UNAUDITED)

innovative efforts are reflected in the significant price appreciation of Ligand Pharmaceuticals Inc., the single largest holding of the Fund, as well as companies in the information technology sector such as Splunk Inc. and Red Hat Inc., both of which were added during the reporting period.

Fund Performance

Against the backdrop of the 2017 calendar-year stock market rally, the domestic economy continued its growth trajectory through the reporting period until January 2018. In February and March, the S&P 500 Index® entered correction territory, which is defined as a decline from a recent peak of 10% or more, with many sectors trading lower. The Fund's performance benefitted from portfolio positions that reflected innovative technologies and changing industry characteristics. As a result, the performance of the Fund did not decline as significantly as the S&P 500® during the last fiscal quarter.

One position that continued to make a positive contribution to Fund performance is Ligand Pharmaceuticals. Ligand has over 165 products in various stages of development, as well as many products currently on the market that appear to be ripe with potential. Two additional positive performing positions were Splunk Inc., a company that engages in the development and provision of software solutions, which was up 61% from its purchase price during the reporting period, and Red Hat Inc., another company that provides solutions in open-source software, was up 75% from its purchase price during the reporting period.

The share prices of two portfolio securities acquired in private placements, Transluminal Technologies and the CNY Raceway Park, remained unchanged through the fiscal period ending March 31, 2018. These positions, which represented roughly twenty-two of the portfolio during the reporting period, are valued in accordance with procedures established by the Board of Trustees. Since the price per share did not change throughout the period they did not have a positive material impact in the performance of the Fund. Because these positions currently represent slightly less than one-quarter of the Fund's assets, the ability of the portfolio manager to actively manage the Fund's portfolio is limited accordingly.

A detractor in the portfolio during the reporting period included the alternative energy company FuelCell Energy, Inc, which designs, manufactures, sells, and installs stationary fuel cell power plants. The Fund exited this position because the short-term outlook remains uncertain, due to the higher costs associated with alternative energy platforms. Currently, the affordability of natural gas and oil, along with the oversupply concerns of these energy products.

Another portfolio holding that detracted from the performance of the Fund during the reporting period was American International Group, Inc. (AIG), a holding company that, through the operations of its subsidiary, Great American Insurance Group, is engaged primarily in property and casualty insurance, focusing on specialized commercial products for businesses, and in the sale of fixed and fixed-indexed annuities.

NYSA FUND

SHAREHOLDER LETTER (CONTINUED)
MARCH 31, 2018 (UNAUDITED)

in the retail, financial institutions and education markets. AIG has had its share of issues since the “Great Recession” of 2008-2009 when the Federal Reserve made the decision to provide a \$182 billion bailout the financial giant when they made risky bets on credit default swaps. We believed the company had put much of these issues past them and that a turnaround had taken place. However, during the reporting period AIG’s profit margins were squeezed, due to a few catastrophic natural disaster events. Through the uncertainty of their claims exposure we believed the company faced some short-term challenges so we decided to exit the position.

During the reporting period, the Fund’s portfolio continued to hold three municipal bond holdings in the Commonwealth of Puerto Rico. These Puerto Rico municipal bonds were issued by the Puerto Rico Highway Authority, the Puerto Rico Infrastructure (Rum Tax) Authority and the Sales and Use Tax bonds (acronym COFINA bond). They represented roughly 2.35% of Fund holdings, which did not adversely impact the Fund’s performance during the reporting period. These issuers remained in Title III Court, similar to a Chapter 9 bankruptcy, which has enabled the government and these agencies of Puerto Rico to freeze numerous lawsuits, maintain essential services to their residents, and assign a judge to sort through creditor rights under law.

During the reporting period, many of the Commonwealth residents were still without electricity due to Hurricane Maria, which destroyed much of the island infrastructure in late September. This event exacerbated the issues in Puerto Rico and created even more downside for their municipal bonds towards the end of calendar-year 2017. However, subsequent to the end of the reporting period (as of May 11, 2018), many of these bond prices have appreciated from these lows as the recovery effort, with the help of the Federal government, has been underway for quite some time. There is a great deal of uncertainty in the future prices of these fixed income securities, however, PROMESA requires the government of Puerto Rico to develop a fiscal plan that includes methods to access capital markets, develop balanced budgets and deliver audited financial results in a timely fashion. If all of these events take place transparently, Fund management believes these bond positions offer the potential for upside price appreciation and that they are not worthless securities.

The S&P 500® Index has served as the benchmark for the Fund since the inception of the Fund, and we will continue to use it as a measure of Fund performance. However, the Fund’s underlying investments will differ substantially from time-to-time from the Indexes underlying holdings. During the reporting period, management of the Fund had an optimistic investment viewpoint from investments that do make-up the S&P 500®, which contributed to its current outperformance. We our underlying investments in the portfolio will contribute to our future long-term performance.

Although the Fund’s investment objective is to provide long-term capital growth, its investment strategies can change over time. The mention of specific fund portfolio holdings does not constitute a recommendation by Pinnacle Advisors LLC.

NYSA FUND

SHAREHOLDER LETTER (CONTINUED)
MARCH 31, 2018 (UNAUDITED)**Outlook**

We anticipate that, going forward, market volatility will intensify as concerns about rising inflation, rising interest rates, and the potential for a negative impact of trade policies implemented by the current administration increase. Despite these concerns, we believe that the US economy remains strong, and that economic growth will continue at a slower pace. The Federal Reserve has continued to show great transparency in its policy actions with its indications of potential rate changes and its delivery of the recent three one-quarter point increases in the Federal Funds rate. We continue to monitor wage growth that could cause a swift increase in inflation. Despite these possibilities, we do not see any near-term negative factors that could exert downward pressure on prices of the Fund's current portfolio holdings. Our objective is to continue to look for long-term economic growth, and we continually search in many different investment opportunities.

Performance data quoted does not guarantee future investment results. The investment return and principal value of an investment in the Fund will fluctuate so that an investor's shares, when redeemed, may be worth more or less than their original cost.

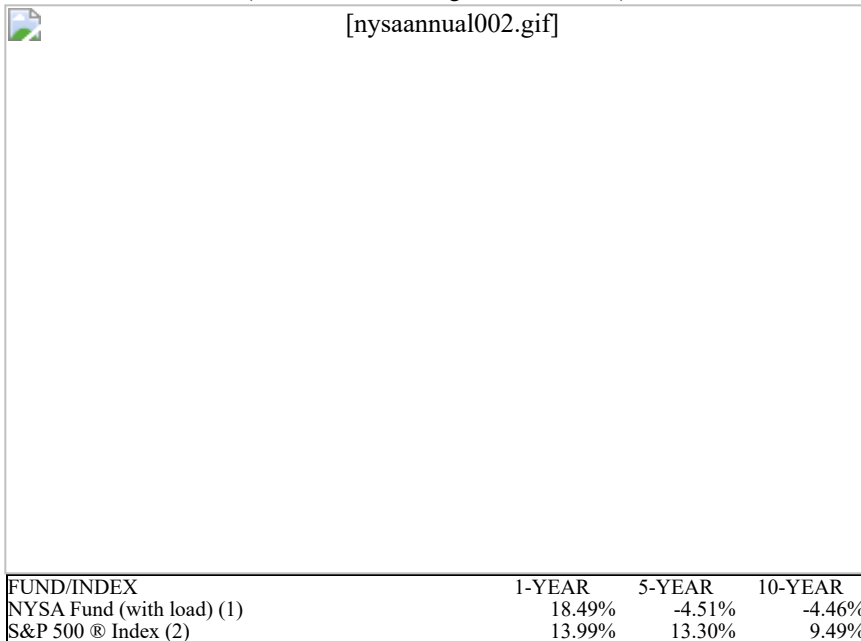
Sincerely,

Robert Cuculich, Portfolio Manager

NYSA FUND

PERFORMANCE ILLUSTRATION MARCH 31, 2018 (UNAUDITED)

Average Annual Total Returns
(For the Period ending March 31, 2018)



This chart assumes an initial investment of \$10,000 in shares of the NYSA Fund made on March 31, 2008, after deducting the maximum sales charge of 2.50% currently in effect (\$10,000 investment minus \$250 sales charge = \$9,750). During the period from April 1, 2005 through May 13, 2007, shares of the Fund were offered without a sales charge. If returns for the period from April 1, 2006 through May 13, 2007 had been calculated without a deduction of the current maximum sales charge, returns during that period would have been higher. The new sales charge schedule, which includes a maximum sales charge of 2.50%, was implemented on May 14, 2007. Please refer to the prospectus dated July 25, 2016 for more detail on the Fund's sales charge. Initial public offering of shares was May 12, 1997. The chart shows how the value of an investment in Nysa Fund would have changed, and also shows how the S&P 500® Index performed over the same periods.

(1) The hypothetical investment and the average annual total returns shown do not reflect the deduction of taxes that a shareholder would pay on fund distributions or the redemption of fund shares. All returns reflect reinvested dividends. During periods in which the Fund's investment adviser waived advisory fees, the Fund's returns will be greater than the returns would have been had the waiver not occurred.

(2) The Standard & Poor's 500® Index ("S&P 500® Index ") is a market value-weighted index, representing the aggregate market value of the common equity of 500 stocks primarily traded on the New York Stock Exchange. The S&P 500® Index is a widely recognized, unmanaged index of common stock prices. The figures for the S&P 500® Index reflect all dividends reinvested but do not reflect any deductions for fees, expenses or taxes.

Performance data quoted represents past performance is not predictive of future performance and does not guarantee future results. Investment return and principal value will fluctuate so that shares, when redeemed, may be worth more or less than their original cost. While index comparisons may be useful to provide a benchmark for the Fund's performance, it must be noted that the Fund's investments are not limited to those included in the S&P 500® Index and that the Fund's investments may vary significantly to those included in the S&P 500® Index.

NYSA FUND

PORTFOLIO ILLUSTRATION**MARCH 31, 2018 (UNAUDITED)**

The following chart illustrates the allocation of the Fund's portfolio among various industry sectors as of March 31, 2018. The allocations are based on the total market value of the Fund's portfolio investments, and are calculated as a percentage of total investments.



[nysaannual004.gif]

NYSA FUND

SCHEDULE OF INVESTMENTS
MARCH 31, 2018

<u>Shares</u>	<u>Value</u>
COMMON STOCKS - 99.96%	
Electric Services - 1.81%	
138,976 CGE Energy, Inc. *	\$ 36,134
Energy - Natural Gas - 0.81%	
1,000 Energy Transfers Partners, L.P.	16,220
Media - Diversified - 0.78%	
500 Viacom, Inc. Class B	15,530
Motor Vehicles - 1.11%	
2,000 Ford Motor Co.	22,160
Pharmaceutical Preparations - 57.81%	
7,000 Ligand Pharmaceuticals, Inc., Class B *	1,156,120
Printed Circuit Boards - 3.26%	
4,000 Flextronics International Ltd. *	65,320
Raceway Operations - 2.50%	
25,000 Central New York Raceway Park, Inc. (a) (b) *	50,000
Retail - Variety Stores - 2.82%	
300 Costco Wholesale Corp.	56,529
Semi Conductors & Related Devices - 1.30%	
500 Intel Corp.	26,040
Services - Prepackaged Software - 2.46%	
500 Splunk, Inc. *	49,195
Services - Computer Programming, Data Processing, & Etc. - 2.24%	
300 Red Hat, Inc. *	44,853

Above percentages are calculated as a percentage of net assets.

* Non-income producing during the period.

(a) Restricted Security - See Note 7. As of March 31, 2018, the percentage of the Fund's total net assets represented by illiquid securities was 23.53%. The Fund may not invest more than 15% of its net assets in illiquid securities. However, as noted in the Fund's prospectus dated as of September 29, 2017, the 15% limitation is not violated unless the excess results immediately and directly from the acquisition of any security, and the Fund's investments in illiquid securities may, from time to time, exceed 15% of its net assets. The Fund's percentage of total assets represented by illiquid securities as of March 31, 2018: (i) did not result from the acquisition of any security; and (ii) was the result of previous years' changes in the fair value of securities held by the Fund.

(b) Level 3 Security. See Note 2.

The accompanying notes are an integral part of these financial statements.

NYSA FUND

SCHEDULE OF INVESTMENTS (CONTINUED)
MARCH 31, 2018

<u>Shares</u>	<u>Value</u>
Services - Information Technology - 3.03%	
400 CACI International, Inc. Class A *	\$ 60,540
Surgical & Medical Instruments - 20.03%	
84,332 Transluminal Technologies LLC (a) (b) *	400,577
TOTAL FOR COMMON STOCKS (Cost \$915,597) - 99.96%	1,999,218
MUNICIPAL BONDS - 2.37%	
195,000 Puerto Rico Infrastructure Financing Authority 5.00%, 07/01/2041 * (c)	14,381
Puerto Rico Highway & Transportation Authority Series H	
50,000 5.00%, 07/01/2035 * (c)	9,500
Puerto Rico Sales Tax Fing Corp. Sales Tax Revenue Series A	
100,000 6.00%, 08/01/2042 * (c)	23,500
TOTAL FOR MUNICIPAL BONDS - (Cost \$158,638) - 2.37%	47,381
MONEY MARKET FUND - 0.17%	
3,452 Federated Treasury Obligations Fund Institutional Shares 0.01% **	3,452
TOTAL FOR MONEY MARKET FUND - (Cost \$3,452) - 0.17%	3,452
TOTAL INVESTMENTS (Cost \$1,077,687) - 102.50%	2,050,051
INVESTMENTS IN OPTIONS WRITTEN, AT VALUE (Premiums Received \$12,420) - (0.87)%	(17,500)
LIABILITIES IN EXCESS OF OTHER ASSETS - (1.63)%	(32,594)
NET ASSETS - 100.00%	\$1,999,957

Above percentages are calculated as a percentage of net assets.

* Non-income producing during the period.

** Variable Rate Security, the coupon rate shown represents the yield at March 31, 2018.

(a) Restricted Security - See Note 7. As of March 31, 2018, the percentage of the Fund's total net assets represented by illiquid securities was 23.53%. The Fund may not invest more than 15% of its net assets in illiquid securities. However, as noted in the Fund's prospectus dated as of September 29, 2017, the 15% limitation is not violated unless the excess results immediately and directly from the acquisition of any security, and the Fund's investments in illiquid securities may, from time to time, exceed 15% of its net assets. The Fund's percentage of total assets represented by illiquid securities as of March 31, 2018: (i) did not result from the acquisition of any security; and (ii) was the result of previous years' changes in the fair value of securities held by the Fund.

(b) Level 3 Security. See Note 2.

(c) This security is not accruing income because its issuer has missed or is expected to miss interest and/or principal payments. The rate shown is the contractual interest rate. See Note 4 of the accompanying Notes.

The accompanying notes are an integral part of these financial statements.

NYSA FUND

SCHEDULE OF CALL OPTIONS WRITTEN
MARCH 31, 2018

<u>Contracts</u>	<u>Underlying Security</u>	<u>Counterparty</u>	<u>Notional Amount</u>	<u>Exercise Price</u>	<u>Expiration</u>	<u>Fair Value</u>
CALL OPTIONS WRITTEN *						
5,000	Ligand Pharmaceuticals, Inc.	Pinnacle	1,800,000	\$180.00	5/18/2018	\$17,500
CALL OPTIONS WRITTEN (Premium Received \$12,420) - (0.87)%						<u>\$ 17,500</u>

* Represents non-income producing security.

The accompanying notes are an integral part of these financial statements.

NYSA FUND

STATEMENT OF ASSETS AND LIABILITIES
MARCH 31, 2018
Assets:

Investments in Securities, at Value (Cost \$1,077,687)	\$ 2,050,051
Cash	500
Receivables:	
Interest and Dividends	3,073
Prepaid Expenses	441
Total Assets	<u>2,054,065</u>

Liabilities:

Options Written (Premiums Received \$12,420)	\$ 17,500
Payables:	
Shareholder Redemptions	12,500
Trustee Fees	263
Service Fees	4,346
Other Accrued Expenses	19,499
Total Liabilities	<u>54,108</u>

Net Assets
\$ 1,999,957
Net Assets Consist of:

Paid In Capital	\$ 3,025,437
Undistributed Net Investment Loss	(26,530)
Accumulated Undistributed Realized Loss on Investments	(1,966,234)
Unrealized Appreciation in Value of Investments	967,284

Net Assets, for 393,395 Shares Outstanding
\$ 1,999,957
Net Asset Value and Redemption Price Per Share
\$ 5.08
Maximum Offering Price Per Share (\$5.08/97.5%)
\$ 5.21

The accompanying notes are an integral part of these financial statements.

NYSA FUND

STATEMENT OF OPERATIONS
FOR THE YEAR ENDED MARCH 31, 2018

Investment Income:	
Dividends	\$ 3,976
Interest	6,232
Total Investment Income	<u>10,208</u>
Expenses:	
Advisory Fees	18,634
Transfer Agent Fees	18,268
Audit Fees	16,656
Legal Fees	38,700
Administration Fees	5,508
Custodial Fees	4,339
Trustee Fees	3,934
Registration Fees	2,545
Insurance Fees	532
NSCC Fees	5,009
Miscellaneous Fees	2,156
Printing and Mailing	564
Total Expenses	<u>116,845</u>
Advisory Fees Waived	<u>(18,634)</u>
Net Expenses	<u>98,211</u>
Net Investment Loss	<u>(88,003)</u>
Realized and Unrealized Gain on Investments and Options:	
Realized Gain on Investments	48,857
Realized Gain on Options Written	3,376
Net Change in Unrealized Appreciation on Investments and Options	<u>407,704</u>
Realized and Unrealized Gain on Investments and Options	<u>459,937</u>
Net Increase in Net Assets Resulting from Operations	<u><u>\$ 371,934</u></u>

The accompanying notes are an integral part of these financial statements.

NYSA FUND

STATEMENTS OF CHANGES IN NET ASSETS

	Year Ended <u>3/31/2018</u>	Year Ended <u>3/31/2017</u>
Increase (Decrease) in Net Assets From Operations:		
Net Investment Loss	\$ (88,003)	\$ (80,541)
Net Realized Gain (Loss) on Securities and Options Written	52,233	(90,667)
Unrealized Appreciation on Securities and Options Written	<u>407,704</u>	<u>126,594</u>
Net Increase (Decrease) in Net Assets Resulting from Operations	<u>371,934</u>	<u>(44,614)</u>
Capital Share Transactions	<u>(133,103)</u>	<u>(38,870)</u>
Total Increase (Decrease) in Net Assets	238,831	(83,484)
Net Assets:		
Beginning of Year/Period	<u>1,761,126</u>	<u>1,844,610</u>
End of Year/Period (including undistributed net investment loss of \$26,350 and \$16,857, respectively)	<u><u>\$ 1,999,957</u></u>	<u><u>\$ 1,761,126</u></u>

The accompanying notes are an integral part of these financial statements.

NYSF FUND

FINANCIAL HIGHLIGHTS

Selected data for a share outstanding throughout the period.

	Years Ended				
	3/31/2018	3/31/2017	3/31/2016	3/31/2015	3/31/2014
Net Asset Value, at Beginning of Year	\$ 4.18	\$ 4.28	\$ 4.92	\$ 7.74	\$ 6.24
Income (Loss) From Investment Operations:					
Net Investment Loss *	(0.21)	(0.19)	(0.20)	(0.23)	(0.36)
Net Gain (Loss) on Securities (Realized and Unrealized)	1.11	0.09	(0.44)	(2.59)	1.86
Total Income (Loss) from Investment Operations	0.90	(0.10)	(0.64)	(2.82)	1.50
Net Asset Value, at End of Year	\$ 5.08	\$ 4.18	\$ 4.28	\$ 4.92	\$ 7.74
Total Return (**) (***)	21.53%	(2.34)%	(13.01)%	(36.43)%	24.04%
Ratios/Supplemental Data:					
Net Assets at End of Year (Thousands)	\$ 2,000	\$ 1,761	\$ 1,845	\$ 2,037	\$ 2,919
Before Waiver					
Ratio of Expenses to Average Net Assets	6.27%	6.38%	6.09%	5.32%	6.16%
After Waiver					
Ratio of Expenses to Average Net Assets	5.27%	5.38%	5.09%	4.57%	5.41%
Ratio of Net Investment Loss to Average Net Assets	(4.72)%	(4.40)%	(4.48)%	(3.83)%	(4.85)%
Assets	44%	42%	28%	46%	128%
Portfolio Turnover					

* Per share net investment income (loss) has been determined on the basis of average shares outstanding during the year.

** Assumes reinvestment of dividends.

*** Total return is calculated assuming shares are purchased and redeemed at the Fund's net asset value and excludes the effect of sales charges. A maximum sales charge of up to 2.50% is applicable to purchases of Fund shares, unless waived or reduced in accordance with the Fund's prospectus.

The accompanying notes are an integral part of these financial statements.

NYSA FUND

NOTES TO THE FINANCIAL STATEMENTS
MARCH 31, 2018**1. ORGANIZATION AND SIGNIFICANT ACCOUNTING POLICIES**

Nysa Fund ("Fund") is a non-diversified series of Nysa Series Trust ("Trust"), an open-end management investment company registered under the Investment Company Act of 1940, as amended ("1940 Act"). The Trust was organized as a Massachusetts business trust on November 20, 1996. The Fund was capitalized on February 18, 1997, when affiliates of Pinnacle Advisors LLC ("Adviser") purchased the initial shares of the Fund at \$10 per share. The Fund began the public offering of shares on May 12, 1997. The investment objective of the Fund is to provide long-term capital growth.

The Fund follows the accounting and reporting guidance in FASB Accounting Standards Codification 946.

Security Valuation – All investments in securities are recorded at their estimated fair value, as described in Note 2.

Option Writing - When the Fund writes an option, an amount equal to the premium received by the Fund is recorded as a liability and is subsequently adjusted to the current fair value of the option written. Premiums received from writing options that expire unexercised are treated by a Fund on the expiration date as realized gains from investments. The difference between the premium and the amount paid on effecting a closing purchase transaction, including brokerage commissions, is also treated as a realized gain, or, if the premium is less than the amount paid for the closing purchase transaction, as a realized loss. If a call option is exercised, the premium is added to the proceeds from the sale of the underlying security or currency in determining whether a Fund has realized a gain or loss. If a put option is exercised, the premium reduces the cost basis of the securities purchased by the Fund. A Fund as writer of an option bears the market risk of an unfavorable change in the price of the security underlying the written option. See Note 5 for additional disclosure on the Fund's option transactions during the Fund's year ended March 31, 2018.

Investment Income – Dividend income is recorded on the ex-dividend date. Interest income is accrued as earned.

Security Transactions – Security transactions are accounted for on trade date. Realized gains and losses on security transactions are determined on a specific identification basis.

Distributions to Shareholders – Dividends to shareholders from net investment income or capital gains, if any, are paid annually as required to comply with federal excise tax requirements. Distributions to shareholders are determined in accordance with income tax regulations and recorded on the ex-dividend date.

Use of Estimates – The preparation of financial statements in conformity with GAAP requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities and disclosure of contingent assets and liabilities at the date of the

NYSA FUND

NOTES TO THE FINANCIAL STATEMENTS (CONTINUED)
MARCH 31, 2018

financial statements and the reported amounts of increases and decreases in net assets from operations during the period. Actual results could differ from those estimates.

Subsequent Events – Management has evaluated the impact of all subsequent events on the Fund through the issuance of these financial statements and has noted no such events requiring disclosure.

Federal Income Taxes – The Fund's policy is to continue to comply with requirements of the Internal Revenue Code that are applicable to regulated investment companies, and distribute all the Fund's taxable income to its shareholders. The Fund also intends to distribute sufficient net investment income and net capital gains if any, so that the Fund will not be subject to excise tax on undistributed income and gains. Therefore, no federal income tax or excise provision is required.

The Fund recognizes the tax benefits of uncertain tax positions only when the position is more likely than not to be sustained, assuming examination by tax authorities. Management has analyzed the Fund's tax positions and concluded that no liability for unrecognized tax benefits should be recorded related to uncertain tax positions taken on returns filed for open tax years (2015 – 2017) or expected to be taken in the Fund's 2018 tax returns. The Fund identifies its major tax jurisdictions as U.S. federal and where the Fund makes significant investments. Management is not aware of any tax positions for which it is reasonably possible that the total amounts of unrecognized tax benefits will change materially in the next 12 months.

Reclassifications - In accordance with GAAP, the Fund has recorded a reclassification in the capital accounts. As of March 31, 2018, the Fund recorded permanent book/tax differences of \$78,330 from net investment loss and \$574,625 from accumulated net realized loss to paid-in capital. These reclassifications have no impact on the net asset value of the Fund and are designed generally to present undistributed income and net realized gains on a tax basis, which is considered to be more informative to shareholders.

2. SECURITIES VALUATIONS**Processes and Structure**

The Fund's Board of Trustees has adopted policies and procedures for valuing securities, including the valuation of portfolio securities for which market quotations are not readily available, and has delegated the responsibility for determining fair value prices to the Valuation Committee, subject to review and oversight by the Board of Trustees.

Hierarchy of Fair Value Inputs

The Fund utilizes various methods to measure the fair value of most of its investments on a recurring basis. GAAP establishes a hierarchy that prioritizes inputs to valuation techniques used to measure fair value. The three levels of inputs are as follows:

NYSA FUND

NOTES TO THE FINANCIAL STATEMENTS (CONTINUED)
MARCH 31, 2018

- Level 1. Unadjusted quoted prices in active markets for identical assets or liabilities that the company has the ability to access.
- Level 2. Observable inputs other than quoted prices included in Level 1 that are observable for the asset or liability either directly or indirectly. These inputs may include quoted prices for the identical instrument on an inactive market, prices for similar instruments, interest rates, prepayment speeds, credit risk, yield curves, default rates, and similar data.
- Level 3. Unobservable inputs for the asset or liability to the extent that relevant observable inputs are not available, representing the company's own assumptions about the assumptions that a market participant would use in valuing the asset or liability, and that would be based on the best information available.

The availability of observable inputs can vary from security to security, and is affected by a wide variety of factors, including, for example, the type of security, whether the security is new and not yet established in the marketplace, the liquidity of markets, and other characteristics particular to the security. To the extent that valuation is based on models or inputs that are less observable or unobservable in the market, the determination of fair value requires more judgment. Accordingly, the degree of judgment exercised in determining fair value is greatest for instruments categorized in Level 3.

The inputs used to measure fair value may fall into different levels of the fair value hierarchy. In such cases, for disclosure purposes, the level in the fair value hierarchy within which the fair value measurement falls in its entirety is determined based on the lowest level input that is significant to the fair value measurement in its entirety.

Fair Value Measurements

A description of the valuation techniques applied to the Fund's major categories of assets and liabilities measured at fair value on a recurring basis follows.

Equity Securities (common stocks) - Securities traded on a national securities exchange (or reported on the NASDAQ national market) are stated (1) at the last quoted sales price (with securities traded on the NASDAQ NMS and Small Cap Markets valued at the NASDAQ Official Closing Price) or, in the absence of a sale, (2) at the last bid. To the extent these securities are actively traded, and valuation adjustments are not applied, they are categorized in Level 1 of the fair value hierarchy.

Fixed income securities (municipal bonds) - The fair value of fixed income securities is estimated using various techniques, which may consider recently executed transactions in securities of the issuer or comparable issuers, market price quotations (when observable), bond spreads, fundamental data relating to the issuer, and credit default swap spreads adjusted for any basis difference between cash and derivative instruments. Although most fixed income securities are categorized in Level 2 of the fair value hierarchy, in instances

NYSA FUND

NOTES TO THE FINANCIAL STATEMENTS (CONTINUED)
MARCH 31, 2018

when lower relative weight is placed on transaction prices, quotations, or similar observable inputs, they are categorized in Level 3.

Short Term Investments - Short term investments are valued using amortized cost, which approximates fair value. These securities will be categorized in Level 1 of the fair value hierarchy.

Derivative Instruments (equity options) – Listed derivatives that are actively traded, and valuations adjustments are not applied, are valued based on quoted prices from the exchange and categorized in Level 1 of the fair value hierarchy.

Restricted Securities – Restricted securities are generally acquired directly or indirectly from an issuer in a nonpublic offering. Because restricted securities are generally subject to restrictions on transfer, market quotations for such securities are generally not readily available, and they are considered to be illiquid securities. The Board of Trustees (“Board”) has adopted Portfolio Securities Valuation Procedures that, among other things, provide guidelines for the valuation of portfolio securities for which market quotations are not readily available (“Valuation Procedures”). The Valuation Procedures delegate the responsibility for determining the fair value of securities for which market quotations are not readily available to a Valuation Committee, subject to review and oversight by the Board of Trustees (“Board”). Under circumstances where the Adviser determines that the market quotation or the price provided by a pricing service does not accurately reflect the current market value, such securities are also valued as determined in good faith by the Valuation Committee, subject to review and oversight by Board of Trustees. Restricted securities are categorized in Level 3 of the fair value hierarchy.

The following table summarizes the inputs used to value the Fund’s assets and liabilities measured at fair value as of March 31, 2018:

	Financial Instruments—Assets			Fair Value
	Level 1	Level 2	Level 3	
<i>Investments in Securities</i> (Assets)				
Common Stocks	\$1,548,641	\$ -	\$ 450,577	\$1,999,218
Municipal Bonds	-	47,381	-	47,381
Money Market Fund	3,452	-	-	3,452
	<u>\$1,552,093</u>	<u>\$ 47,381</u>	<u>\$ 450,577</u>	<u>\$2,050,051</u>
<i>Investments in Options Written</i> (Liabilities)				
Options Written	\$ (17,500)	\$ -	\$ -	\$ (17,500)
Total	<u>\$ (17,500)</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ (17,500)</u>

* Refer to the Fund’s Schedule of Investments for a listing of securities by security type and industry.

NYS A FUND

NOTES TO THE FINANCIAL STATEMENTS (CONTINUED)

MARCH 31, 2018

The following table sets forth a summary of the changes in the fair value of the Fund's Level 3 investments for the year ended March 31, 2018:

	<u>Common Stocks</u>
Balance Beginning at April 1, 2017	\$ 450,577
Net Realized Gain/(Loss) on Sale of Investments	-
Net Purchases and Sales	-
Balance End at March 31, 2018	<u>\$ 450,577</u>

The following information about significant unobservable inputs (Level 3) for the Fund as of March 31, 2018:

<u>Asset Categories</u>	<u>Fair Value</u>	<u>Valuation techniques</u>	<u>Unobservable Input</u>	<u>Input Values</u>
Common Stock	\$450,777	Vendor Pricing	Broker Quotes	85%

The total change in unrealized appreciation (depreciation) included in the statement of operations attributable to level 3 investments still held at March 31, 2018 was \$0.

There were no significant transfers into or out of Level 1, Level 2, or Level 3 during the period. It is the Fund's policy to recognize transfers into and out of Level 1, Level 2, or Level 3 at the end of the reporting period.

3. INVESTMENT TRANSACTIONS

Cost of purchases and proceeds from sales and maturities of investment securities, other than short-term investments, amounted to \$805,526 and \$987,971, respectively, for the year ended March 31, 2018.

4. TRANSACTIONS WITH AFFILIATES

Advisory Agreement - Under the terms of the Investment Advisory Agreement between the Fund and the Adviser ("Agreement"), the Fund has agreed to pay the Adviser a fee, which is computed and accrued daily and payable monthly, at an annual rate of 1.00% of its average daily net assets up to \$100 million; 0.95% of such assets from \$100 million to \$200 million; and 0.85% of such assets in excess of \$200 million. The Adviser has contractually agreed to waive its advisory fee pursuant to a contractual fee waiver arrangement will remain in effect until at least September 30, 2018.

Portfolio Transactions - Commissions paid by the Fund are based on the per transaction commission charge then in effect for the execution of a transaction for the Fund by the investment adviser. Commissions paid to Pinnacle Investments, Inc., an affiliate of the Adviser, amounted to \$1,624, during the year ended March 31, 2018. The Fund has adopted policies and procedures which, subject to its duty of best execution and compliance with Rule 17c-1 under the Investment Company Act of 1940, permits the

NYSA FUND

NOTES TO THE FINANCIAL STATEMENTS (CONTINUED)
MARCH 31, 2018

Adviser to execute portfolio transactions on behalf of the Fund through Pinnacle Investments, Inc.

Implementation of a Service Fee Plan - The Fund has adopted a Service Fee Plan, pursuant to which the Fund is permitted to incur expenses of up to 0.25% per year of the Fund's average daily net assets. Under the Service Fee Plan, the Fund is permitted to reimburse Pinnacle Investments, LLC, the Underwriter, for a portion of its expenses incurred in servicing shareholder accounts, and Pinnacle Investments, LLC is authorized to pay certain "recipients" as defined therein, for rendering services and for the maintenance of accounts. For the year ended March 31, 2018, \$0 was earned by the Underwriter for reimbursement of expenses in connection with shareholder accounts. At March 31, 2018, \$4,346 in Service Fees was due to underwriter.

5. DERIVATIVE TRANSACTIONS

As of March 31, 2018, the Statement of Assets and Liabilities included the following financial derivative instrument fair values:

<u>Liabilities</u>	<u>Equity Contracts</u>
Call Options Written	\$ 17,500
Total Liabilities	\$ 17,500

Realized and unrealized gains and losses on derivatives contracts entered into during the year ended March 31, 2018, by the Fund, are recorded in the following locations in the statement of operations:

For the year ended March 31, 2018, financial derivative instruments had the following effect on the Statement of Operations:

<u>Net change in unrealized depreciation on:</u>	<u>Equity Contracts</u>	<u>Total</u>
Call Options Written	\$ 5,080	\$ 5,080
	\$ 5,080	\$ 5,080
<u>Net realized gain (loss) on:</u>	<u>Equity Contracts</u>	<u>Total</u>
Call Options Written	\$ 3,376	\$ 3,376
	\$ 3,376	\$ 3,376

The selling of written call options may tend to reduce the volatility of the Fund because the premiums received from selling the options will reduce any losses on the underlying securities, but only by the amount of the premiums. However, selling the options may also limit the Fund's gain on the underlying securities. Written call options expose the Fund to minimal counterparty risk since they are exchange-traded and the exchange's clearing house guarantees the options against default.

NYSA FUND

NOTES TO THE FINANCIAL STATEMENTS (CONTINUED)
MARCH 31, 2018**6. CONTROL OWNERSHIP**

The beneficial ownership, either directly or indirectly, of more than 25% of the voting securities shares of a fund creates a presumption of control of the fund, under Section 2(a)(9) of the Investment Company Act of 1940. As of March 31, 2018, First Clearing LLC, for the benefit of others, in aggregate owned approximately 75.89% shares of the Fund.

7. RESTRICTED SECURITIES AND CREDIT RISK

Restricted Securities – On four different occasions (September 14, 2007 34,000 shares, April 8, 2008 17,000 shares, July 24, 2008 16,666 shares, and June 8, 2009 16,666 shares), the Fund purchased 84,332 shares of Transluminal Technologies, LLC in offerings that were exempt from registration under the Securities Act of 1933, as amended. As such, these shares are subject to restrictions such as transferability and market quotations that are not readily available for the purpose of valuing this portfolio holding. As of March 31, 2018, the Board valued the shares of Transluminal Technologies, LLC at \$4.75 per share, having taken into consideration certain pertinent factors, including the results of operations and any recent offerings of Transluminal Technologies, LLC. Because there are no market quotations for this security, it is possible that the valuation assigned by the Board may differ significantly from the amount that might be ultimately realized in near term and the difference could be material.

On April 22, 2014, the Fund also purchased a security from Central New York Raceway Park, Inc. in an offering exempt from the registration requirements of the Securities Act of 1933, as amended, originally in the amount of \$50,000. As such, the shares are subject to restrictions such as transferability and market quotations that are not readily available for the purpose of valuing this portfolio holding. As of March 31, 2018, the Board valued the shares of Central New York Raceway Park, Inc. at \$2.00 per share, having taken into consideration certain pertinent factors, including the results of operations and any recent offerings of Central New York Raceway Park, Inc. Because there are no market quotations for this security, it is possible that the valuation assigned by the Board may differ significantly from the amount that might be ultimately realized in near term and the difference could be material.

As of March 31, 2018, the percentage of the Fund's total net assets represented by illiquid securities was 22.53%. The Fund may not invest more than 15% of its net assets in illiquid securities. However, as noted in the Fund's prospectus dated as of July 25, 2016, the 15% limitation is not violated unless the excess results immediately and directly from the acquisition of any security, and the Fund's investments in illiquid securities may, from time to time, exceed 15% of its net assets. The Fund's percentage of total assets represented by illiquid securities as of March 31, 2018: (i) did not result from the acquisition of any security; and (ii) was the result of changes in the fair value of securities held by the Fund.

NYSA FUND

NOTES TO THE FINANCIAL STATEMENTS (CONTINUED)

MARCH 31, 2018

Credit Risk - The Fund invests in high-yield, non-investment-grade bonds, which may be subject to a greater degree of credit risk. Credit risk relates to the ability of the issuer to meet interest or principal payments or both as they become due. The Fund may acquire securities that have missed an interest payment, and is not obligated to dispose of securities whose issuers or underlying obligors subsequently miss an interest and/or principal payment.

In June 2016, Congress passed the Puerto Rico Oversight, Management, and Economic Stability Act ("PROMESA"). PROMESA established a federally-appointed fiscal oversight board (the "Oversight Board") to oversee Puerto Rico's financial operations and allows the Oversight Board to file cases on behalf of the Commonwealth of Puerto Rico or one of its instrumentalities to restructure debt and other obligations of the relevant entity in a "Title III" proceeding. Title III incorporates many provisions of the federal Bankruptcy Code for U.S. territories, and incorporates legal mechanisms for a litigation stay and restructuring of pension and debt obligations, among other provisions

As of May 25, 2017, the following Puerto Rico municipal bonds were in the Fund's Portfolio; Puerto Rico Infrastructure Financing Authority (IFA), Puerto Rico Highway & Transportation Authority Series H (HTA), and Puerto Rico Sales Tax Financing Corporation Revenue Series A (COFINA), all of which will be protected under Title III of PROMESA. These restructuring proceedings create uncertainty as to the treatment of claims of varying degrees of seniority and the levels and priorities of payment from the affected entities.

Information concerning securities not accruing interest at period end is as follows:

Cost	\$158,638
Market Value	\$ 47,381
Market Value as % of Net Assets	2.37%

8. INCOME TAXES

Income and long-term capital gain distributions are determined in accordance with Federal income tax regulations, which may differ from accounting principles generally accepted in the United States. The Fund's tax basis capital gains and losses and undistributed ordinary income are determined only at the end of each fiscal year. As of March 31, 2018 the Fund's most recent fiscal year-end, components of distributable earnings on a tax basis were as follows:

Post December net investment loss	\$ (26,530)
Net Unrealized Appreciation	967,284
Capital loss carryforwards: (+)	
Indefinite short-term	(293,238)
Indefinite long-term	(1,672,996)
Total Distributable Earnings	<u>\$ (1,025,480)</u>

NYSA FUND

NOTES TO THE FINANCIAL STATEMENTS (CONTINUED)
MARCH 31, 2018

The undistributed ordinary income (loss) and capital gains (losses) shown may differ from corresponding accumulated net investment income (loss) and accumulated net realized gain (loss) reported on the statement of assets and liabilities. The accumulated net realized losses reported on the statement of assets and liabilities differ from the above due to the deferral of late year losses.

Under current tax law, net capital losses realized after October 31st and net ordinary losses incurred after December 31st may be deferred and treated as occurring on the first day of the following year. The Fund's carryforward losses, post-October losses and post-December losses are determined only at the end of each fiscal year. As of March 31, 2018 the Fund elected to defer post December net investment loss in the amount of \$(26,530). The capital loss carry forward will be used to offset any capital gains realized by the Fund in future years. The Fund will not make distributions from capital gains while a capital loss carry forward remains. Capital loss carryforwards in the amount of \$574,625 expired during the year ended March 31, 2018.

As of March 31, 2018, the tax basis components of unrealized appreciation (depreciation) and cost of investment securities (not including options) were as follows:

Gross unrealized appreciation on investment securities	\$ 1,211,656
Gross unrealized depreciation on investment securities	<u>(244,372)</u>
Net unrealized appreciation on investment securities	<u>\$ 967,284</u>

Tax cost of investment securities, including short-term investments	<u>\$ 1,077,687</u>

+ The capital loss carryforward will be used to offset any capital gains realized by the Fund in future years through the expiration date. The Fund will not make distributions from capital gains while a capital loss carryforward remains.

9. CAPITAL SHARE TRANSACTIONS

The Fund is authorized to issue an unlimited number of no par value shares of separate series. The total paid-in-capital was \$3,025,437, as of March 31, 2018. Transactions in capital for the year ended March 31, 2018 and the year ended March 31, 2017 were as follows:

	Year Ended		Year Ended	
	March 31, 2018		March 31, 2017	
	<u>Shares</u>	<u>Amount</u>	<u>Shares</u>	<u>Amount</u>
Shares sold	1,846	\$ 8,700	17,121	\$ 72,744
Shares redeemed	<u>(30,098)</u>	<u>(141,803)</u>	<u>(26,239)</u>	<u>(111,614)</u>
Net decrease	<u>(28,252)</u>	<u>\$ (133,103)</u>	<u>(9,118)</u>	<u>\$ (38,870)</u>

NYSA FUND

NOTES TO THE FINANCIAL STATEMENTS (CONTINUED)
MARCH 31, 2018**10. COMMITMENTS AND CONTINGENCIES**

In the normal course of business, the Fund may enter into contracts that may contain a variety of representations and warranties and provide general indemnifications. The Fund's maximum exposure under these arrangements is dependent on future claims that be made against the Fund and, therefore, cannot be estimated; however, management considers the risk of loss from such claims to be remote.

REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

To the Shareholders and
Board of Trustees of the Nysa Fund

Opinion on the Financial Statements

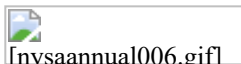
We have audited the accompanying statement of assets and liabilities of the Nysa Fund (a series of Nysa Series Trust) (the “Fund”), including the schedule of investments, as of March 31, 2018, the related statement of operations for the year then ended, the statements of changes in net assets for each of the years in the two-year period then ended and the related notes (collectively, the “financial statements”) and the financial highlights for each of the years in the five-year period then ended. In our opinion, the financial statements and financial highlights present fairly, in all material respects, the financial position of the Nysa Fund as of March 31, 2018, the results of its operations for the year then ended, the changes in its net assets for each of the years in the two-year period then ended, and the financial highlights for each of the years in the five-year period then ended, in conformity with U.S. generally accepted accounting principles.

Basis for Opinion

These financial statements and financial highlights are the responsibility of the Fund’s management. Our responsibility is to express an opinion on these financial statements and financial highlights based on our audits. We are a public accounting firm registered with the Public Company Accounting Oversight Board (United States) (“PCAOB”) and are required to be independent with respect to the Fund in accordance with the U.S. federal securities laws and the applicable rules and regulations of the Securities and Exchange Commission and the PCAOB.

We conducted our audits in accordance with the standards of the PCAOB. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements and financial highlights are free of material misstatement, whether due to error or fraud. The Fund is not required to have, nor were we engaged to perform, an audit of its internal control over financial reporting. Our audits included consideration of internal control over financial reporting as a basis for designing audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the Fund’s internal control over financial reporting. Accordingly, we express no such opinion.

Our audits included performing procedures to assess the risk of material misstatement of the financial statements and financial highlights, whether due to error or fraud, and performing procedures that respond to those risks. Such procedures included examining, on a test basis, evidence regarding the amounts and disclosures in the financial statements and financial highlights. Our procedures included confirmation of securities and cash owned as of March 31, 2018, by correspondence with the custodian. Our audits also included evaluating the accounting principles used and significant estimates made by management, as well as evaluating the overall presentation of the financial statements and financial highlights. We believe that our audits provide a reasonable basis for our opinion.



We have served as the Fund’s auditor since 2005
Abington, Pennsylvania
June 8, 2018

NYSA FUND

EXPENSE ILLUSTRATION

MARCH 31, 2018 (UNAUDITED)

Expense Example

As a shareholder of the Nysa Fund ("Fund"), you incur two types of costs: (1) transaction costs, including sales charges (loads) on purchase payments; and (2) ongoing costs which typically consist of management fees, service fees, and other Fund expenses. This Example is intended to help you understand your ongoing costs (in dollars) of investing in the Fund and to compare these costs with the ongoing costs of investing in other mutual funds.

The Example is based on an investment of \$1,000 invested at the beginning of the six-month period and held for the entire period, October 1, 2017 through March 31, 2018.

Actual Expenses

The first line of the table below provides information about actual account values and actual expenses. You may use the information in this line, together with the amount you invested, to estimate the expenses that you paid over the period. Simply divide your account value by \$1,000 (for example, an \$8,600 account value divided by \$1,000 = 8.6), then multiply the result by the number in the first line under the heading entitled "Expenses Paid During the Period" to estimate the expenses you paid on your account during this period.

Hypothetical Example for Comparison Purposes

The second line of the table below provides information about hypothetical account values and hypothetical expenses based on the Fund's actual expense ratio and an assumed rate of return of 5% per year before expenses, which is not the Fund's actual return. The hypothetical account values and expenses may not be used to estimate the actual ending account balance or expenses you paid for the period. You may use this information to compare the ongoing costs of investing in the Fund and other funds. To do so, compare this 5% hypothetical example with the 5% hypothetical examples that appear in the shareholder reports of the other funds.

	Beginning Account Value	Ending Account Value	Expenses Paid During the Period*
	<u>October 1, 2017</u>	<u>March 31, 2018</u>	<u>October 1, 2017 to March 31, 2018</u>
Actual	\$1,000.00	\$1,121.41	\$25.76
Hypothetical (5% Annual Return before expenses)	\$1,000.00	\$1,000.65	\$24.29

* Expenses are equal to the Fund's annualized expense ratio of 4.87%, multiplied by the average account value over the period, multiplied by 182/365 (to reflect the one-half year period).

NYSA FUND

TRUSTEES & OFFICERS

MARCH 31, 2018 (UNAUDITED)

The following table provides information regarding each Trustee who is not an “interested person” of the Trust, as defined in the Investment Company Act of 1940.

Name, Address, Age	Position(s) Held with the Fund	Term of Office and Length of Time Served	Number of Portfolios Overseen	Principal Occupation During Past Five Years and Current Directorships
Lawton Williamson 507 Plum St. Syracuse, NY 13204 Age: 61	Trustee	Since March 2013	1	Director, Community Employment, Onondaga Community Living, Inc. from 2000 – Present.
Mark E. Wadach 507 Plum St. Syracuse, NY 13204 Age: 66	Trustee	Since February 1997	2	Sales Representative/Consultant for Upstate Utilities Inc. from 2007 – Present. Trustee for 1789 Fund since inception 1/21/2011 - Present.

The following table provides information regarding each Trustee who is an “interested person” of the Trust, as defined in the Investment Company Act of 1940, and each officer of the Trust.

Name, Address, Age	Position(s) Held with the Fund	Term of Office and Length of Time Served	Number of Portfolios Overseen	Principal Occupation During Past Five Years and Current Directorships
Robert Cuculich 507 Plum St. Syracuse, NY Age: 61	President	Since June 2013	1	President of Pinnacle Advisors LLC since June 2013; Registered Representative with Pinnacle Investments, LLC since 2008.
Benjamin Quilty 507 Plum St. Syracuse, NY Age: 36	Vice President & Treasurer CCO	Since June 2013 Since December 2014	1	CCO of Pinnacle Advisors LLC since June 2013; Registered Representative with Pinnacle Investments, LLC since 2010.
Cortland Schroder 100 Limestone Plaza, Fayetteville, NY Age: 53	Secretary	Since September 2014	1	Chief Marketing Officer of Pinnacle Holdings Co. since March 2014; Self-employed as a Career Counselor since 2013; Associate Director of Employer Relations at Colgate University
Joseph Masella 100 Limestone Plaza, Fayetteville, NY Age: 68	Trustee *	Since February 1997	1	Chief Executive Officer, Pinnacle Capital Management, LLC, October 2011 – present; Various Officer Positions & Director, Unity Mutual Life Insurance Company, August 1978 – June 2011.

* Mr. Masella served as an Independent Trustee from 1997 – 2011.

Trustees serve for indefinite terms. The Nysa Series Trust Agreement and Declaration of Trust, dated November 20, 1996, states: “Each Trustee shall serve as a Trustee during the lifetime of the Trust and until its termination as hereinafter provided or until such Trustee sooner dies, resigns, retires, or is removed. The Trustees may elect their own successors and may, pursuant to Section 3.1(f) hereof, appoint Trustees to fill vacancies; provided that, immediately after filling a vacancy, at least two-thirds of the Trustees then holding office shall have been elected to such office by the Shareholders at an annual or special meeting. If at any time less than a majority of the Trustees then holding office were so elected, the Trustees shall forthwith cause to be held as promptly as possible, and in any event within 60 days, a meeting of Shareholders for the purpose of electing Trustees to fill any existing vacancies.” Additionally, per this Declaration of Trust, the Trustees have the authority to “elect and remove officers”.

NYSA FUND

ADDITIONAL INFORMATION**MARCH 31, 2018 (UNAUDITED)**

Portfolio Holdings – The Fund files a complete schedule of investments with the SEC for the first and third quarter of each fiscal year on Form N-Q. The Fund's first and third fiscal quarters end on June 30 and December 31. The Form N-Q filing must be made within 60 days of the end of the quarter, and the Fund's first Form N-Q was filed with the SEC on March 1, 2005. The Fund's Forms N-Q are available on the SEC's website at <http://sec.gov>, or they may be reviewed and copied at the SEC's Public Reference Room in Washington, DC (call 1-800-732-0330 for information on the operation of the Public Reference Room). You may also obtain copies by calling the Fund at 1-800-535-9169, free of charge.

Proxy Voting - A description of the policies and procedures that the Fund uses to determine how to vote proxies relating to portfolio securities and information regarding how the Fund voted proxies during the 12-month period ended June 30, are available without charge upon request by (1) calling the Fund at (800) 535-9169 and (2) from Fund documents filed with the Securities and Exchange Commission ("SEC") on the SEC's website at www.sec.gov. A review of how the Fund historically voted proxies for portfolio securities can be obtained at our transfer agent's website, www.mutualss.com.

Statement of Additional Information - The Fund's Statement of Additional Information ("SAI") includes additional information about the trustees and is available, without charge, upon request. You may call toll-free (800) 535-9169 to request a copy of the SAI or to make shareholder inquiries.

Renewal of Advisory Agreement - Nysa Series Trust (Trust) has entered into an Investment Advisory Agreement (Agreement) with Pinnacle Advisors LLC (Adviser), pursuant to which the Adviser provides investment advisory services to Nysa Fund (Fund). Each year, the Board of Trustees (Board), including a majority of the Independent Trustees, is required to determine whether to renew the Agreement. The Investment Company Act of 1940, as amended, requires that the Board request and evaluate, and that the Adviser provide, such information as may be reasonably necessary to evaluate the terms of the Agreement. The Board considered the renewal of the Agreement at a meeting held in person for that purpose on March 29, 2018. All members of the Board, including the Independent Trustees, were present. Following its review of the information provided by the Adviser, the Board, including a majority of the Independent Trustees, discussed a variety of factors relevant for the purpose, and determined that it was in the best interest of the Fund and its shareholders to renew the Agreement.

The Adviser provided information to the Board relating to the following factors: (i) the nature, quality and extent of the services provided by the Adviser; (ii) the investment performance of the Fund; (iii) the fees and expenses of the Fund, including comparative fee and expense information; (iv) whether economies of scale could be realized as the Fund grows; and (v) other benefits to the Adviser and its affiliates from their relationship with the Fund. The Board did not discuss profits to be realized by the Adviser because the contractual relationship between the Trust and the Adviser is not currently profitable to the Adviser. The Board was aware that there may be alternatives to retaining the

NYSA FUND

ADDITIONAL INFORMATION (CONTINUED)
MARCH 31, 2018 (UNAUDITED)

Adviser. A summary of the information considered by the Board and a summary of the Board's conclusions are set forth below.

Nature, Quality and Extent of the Services. The Board considered information about the nature, quality and extent of the services provided to the Fund. The Adviser's duties include providing the Fund with the services of the portfolio manager and providing certain administrative services to the Fund. The Fund's principal underwriter ("Distributor"), an affiliate of the Adviser, provides the Fund with office space, investment research and access to trading platforms. The Board concluded that it would be reasonable to expect that services to be provided by the Adviser will be comparable to the services that the Adviser has provided in the past.

Investment Performance of the Fund. The Board considered information about the performance of the Fund during the calendar year ended December 31, 2017. It was noted that the Fund's returns were positive during that period, that the Fund's performance (+11.55%), excluding sales charge, was below that of the Standard & Poor's 500 Index (+18.74%), and that the Fund's performance would have been lower taking into account the maximum sales charge of 2.5%. The Board also considered the comparative performance information for other mutual funds in the small-cap growth category provided by the Adviser. It was noted that the advisory fees to which the Adviser is entitled are among the lowest in the peer group, and that the Adviser had waived those fees during the 2017 calendar year.

Fees and Expenses of the Fund; Economies of Scale. The Board considered information about the fees and expenses of the Fund during the most recent 12 month period. It was noted that expenses as a percentage of assets remain relatively high compared to most other mutual funds in its peer group. The Board acknowledged that the Fund does not incur any fees under the Agreement because the Adviser has contractually agreed to waive the advisory fee to which it would otherwise be entitled. The Board also acknowledged that a substantial portion of the Fund's expenses were attributable to legal and compliance costs. Officers of the Fund noted that a reduction of these specific expenses would require an increase in internal resources. The Board considered the fact that the Adviser had waived its entire advisory fee during the 2018 fiscal year, and that the Adviser is willing to continue to waive its advisory fee during the 2019 fiscal year and beyond. It was also noted that it would not be reasonable to achieve economies of scale unless assets of the Fund increase.

Other Benefits to the Adviser and Affiliates of the Adviser. It was noted that the Fund is the only client to whom the Adviser provides investment advisory services and that the contractual relationship between the Adviser and the Fund is not currently profitable to the Adviser. It was also noted that, subject to the Adviser's duty to seek best execution and subject to compliance with policies and procedures established by the Fund to comply with Rule 17e-1, the Adviser places portfolio transactions with the Distributor, an affiliate of the Adviser, and that the revenues derived from these portfolio transactions provide an economic benefit to the Distributor.

NYSA FUND

ADDITIONAL INFORMATION (CONTINUED)
MARCH 31, 2018 (UNAUDITED)

Conclusions. While the Board, including the Independent Trustees, considered the factors described above, it did not specifically consider information relating to the costs incurred by the Adviser in providing services under the Agreement. Even though the Adviser has agreed to continue the fee waiver currently in effect, the Board considered industry comparisons for purposes of evaluating the advisory fees that would be paid by the Fund in the absence of the Adviser's commitment to continue the fee waiver arrangement. The Board relied on summaries of industry comparisons for purposes of evaluating the performance of the Fund and the other expenses incurred by the Fund. While the Board acknowledged that there may be alternatives to retaining the services of the Adviser, it also acknowledged that such alternatives would likely be limited, especially in view of the fact that the Adviser has agreed to waive all or a portion of its advisory fee for a specified period of time in an effort to reduce Fund expenses. While the Board considered the various factors described above, no single factor was determinative.

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Nysa Fund

Item 2. Code of Ethics.

(a)

As of the end of the period covered by this report, the registrant has adopted a code of ethics that applies to the registrant's principal executive officer, principal financial officer, principal accounting officer or controller, or persons performing similar functions, regardless of whether these individuals are employed by the registrant or a third party.

(b)

For purposes of this item, "code of ethics" means written standards that are reasonably designed to deter wrongdoing and to promote:

(1) Honest and ethical conduct, including the ethical handling of actual or apparent conflicts of interest between personal and professional relationships;

(2) Full, fair, accurate, timely, and understandable disclosure in reports and documents that a registrant files with, or submits to, the Commission and in other public communications made by the registrant;

(3) Compliance with applicable governmental laws, rules, and regulations;

(4) The prompt internal reporting of violations of the code to an appropriate person or persons identified in the code; and

(5) Accountability for adherence to the code.

(c)

Amendments:

During the period covered by the report, there have not been any amendments to the provisions of the code of ethics.

Item 3. Audit Committee Financial Expert.

The fund is small enough that the audit committee has deemed it unnecessary to elect an audit committee financial expert.

Item 4. Principal Accountant Fees and Services.**Item 4. Principal Accountant Fees and Services.**(a) **Audit Fees**

FY 2018	\$ <u>13,000</u>

FY 2017	\$ <u>12,200</u>

(b) **Audit-Related Fees**

	<u>Registrant</u>

FY 2018	\$ <u>0</u>

FY 2017	\$ <u>0</u>

(c) **Tax Fees**

FY 2018	\$ <u>2,200</u>

FY 2017	\$ <u>2,000</u>

(d) **All Other Fees**

Not available at this time.

(e)

(1)

Audit Committee's Pre-Approval Policies

Due to the small size of the fund the audit committee has yet to develop a pre-approval policy.

(2)

Percentages of Services Approved by the Audit Committee

Not applicable.

(f)

During audit of registrant's financial statements for the most recent fiscal year, less than 50 percent of the hours expended on the principal accountant's engagement were attributed to work performed by persons other than the principal accountant's full-time, permanent employees.

(g)

The aggregate non-audit fees billed by the registrant's accountant for services rendered to the registrant, and rendered to the registrant's investment adviser (not including any sub-adviser whose role is primarily portfolio management and is subcontracted with or overseen by another investment adviser), and any entity controlling, controlled by, or under common control with the adviser that provides ongoing services to the registrant:

(h)

The registrant's audit committee has not considered whether the provision of non-audit services to the registrant's investment adviser (not including any sub-adviser whose role is primarily portfolio management and is subcontracted with or overseen by another investment adviser), and any entity controlling, controlled by, or under common control with the investment adviser that provides ongoing services to the registrant, that were not pre-approved pursuant to paragraph (c)(7)(ii) of Rule 2-01 of Regulation S-X, is compatible with maintaining the principal accountant's independence.

Item 5. Audit Committee of Listed Companies. Not applicable.

Item 6. Schedule of Investments.

Not applicable – schedule filed with Item 1.

Item 7. Disclosure of Proxy Voting Policies and Procedures for Closed-End Funds. Not applicable.

Item 8. Portfolio Managers of Closed-End Funds. Not applicable.

Item 9. Purchases of Equity Securities by Closed-End Funds. Not applicable.

Item 10. Submission of Matters to a Vote of Security Holders.

The registrant has not adopted procedures by which shareholders may recommend nominees to the registrant's board of trustees.

Item 11. Controls and Procedures.

(a) Based on their evaluation of the disclosure controls and procedures (as defined in Rule 30a-3(c) under the Investment Company Act of 1940 (Act)), the registrant's president and chief financial officer concluded that the disclosure controls and procedures in effect during

the period within 90 days of the filing date of this report will require modification in order to enhance the effectiveness of such disclosure controls and procedures.

(b) There were no changes in the registrant's internal control over financial reporting (as defined in Rule 30a-3(d) under the Act) that occurred during the registrant's second fiscal quarter of the period covered by this report that have materially affected, or are reasonably likely to materially affect, the registrant's internal control over financial reporting.

Item 12. Exhibits.

(a)(1)

EX-99.CODE ETH. Filed herewith.

(a)(2)

EX-99.CERT. Filed herewith.

(a)(3)

Any written solicitation to purchase securities under Rule 23c-1 under the Act (17 CFR 270.23c-1) sent or given during the period covered by the report by or on behalf of the registrant to 10 or more persons. Not applicable.

(b)

EX-99.906CERT. Filed herewith.

SIGNATURES

Pursuant to the requirements of the Securities Exchange Act of 1934 and the Investment Company Act of 1940, the registrant has duly caused this report to be signed on its behalf by the undersigned, thereunto duly authorized.

The NYSA Series Trust

By /s/Robert Cuculich
*Robert Cuculich
Chief Executive Officer

Date June 11, 2018

Pursuant to the requirements of the Securities Exchange Act of 1934 and the Investment Company Act of 1940, this report has been signed below by the following persons on behalf of the registrant and in the capacities and on the dates indicated.

By /s/Robert Cuculich
*Robert Cuculich
Chief Executive Officer

Date June 11, 2018

By /s/Benjamin R. Quilty
*Benjamin R. Quilty
Chief Financial Officer

Date June 11, 2018

* Print the name and title of each signing officer under his or her signature.

EXHIBIT 2

SECURITIES AND EXCHANGE COMMISSION

17 CFR Parts 210, 270, 274

Release Nos. 33- 10233; IC- 32315; File No. S7-16-15

RIN 3235-AL61

Investment Company Liquidity Risk Management Programs

AGENCY: Securities and Exchange Commission.

ACTION: Final rule.

SUMMARY: The Securities and Exchange Commission is adopting new rules, a new form and amendments to a rule and forms designed to promote effective liquidity risk management throughout the open-end investment company industry, thereby reducing the risk that funds will be unable to meet their redemption obligations and mitigating dilution of the interests of fund shareholders. The amendments also seek to enhance disclosure regarding fund liquidity and redemption practices. The Commission is adopting new rule 22e-4, which requires each registered open-end management investment company, including open-end exchange-traded funds (“ETFs”) but not including money market funds, to establish a liquidity risk management program. Rule 22e-4 also requires principal underwriters and depositors of unit investment trusts (“UITs”) to engage in a limited liquidity review. The Commission is also adopting amendments to Form N-1A regarding the disclosure of fund policies concerning the redemption of fund shares. The Commission also is adopting new rule 30b1-10 and Form N-LIQUID that generally will require a fund to confidentially notify the Commission when the fund’s level of illiquid investments that are assets exceeds 15% of its net assets or when its highly liquid investments that are assets fall below its minimum for more than a specified period of time. The Commission also is adopting certain sections of Forms N-PORT and N-CEN that will require disclosure of

certain information regarding the liquidity of a fund's holdings and the fund's liquidity risk management practices.

DATES: *Effective Dates:* This rule is effective January 17, 2017 except for the amendments to Form N-CEN (referenced in 17 CFR 274.101) which are effective June 1, 2018.

Compliance Dates: The applicable compliance dates are discussed in section III.M. of this final rule.

FOR FURTHER INFORMATION CONTACT: Zeena Abdul-Rahman, John Foley, Andrea Ottomanelli Magovern, Naseem Nixon, Amanda Hollander Wagner, Senior Counsels; Thoreau Bartmann, Melissa Gainor, Senior Special Counsels; or Kathleen Joaquin, Senior Financial Analyst, Investment Company Rulemaking Office, at (202) 551-6792, Ryan Moore, Assistant Chief Accountant, or Matt Giordano, Chief Accountant at (202) 551-6918, Office of the Chief Accountant, Division of Investment Management, Securities and Exchange Commission, 100 F Street, NE, Washington, DC 20549-8549.

SUPPLEMENTARY INFORMATION: The Securities and Exchange Commission (the "Commission") is adopting new rules 22e-4 [17 CFR 270.22e-4] and 30b1-10 [17 CFR 270.30b1-10], under the Investment Company Act of 1940 [15 U.S.C. 80a-1 *et seq.*] ("Investment Company Act" or "Act"); new Form N-LIQUID [referenced in 17 CFR 274.30b1-10] under the Investment Company Act; amendments to Form N-1A [referenced in 17 CFR 274.11A] under the Investment Company Act and the Securities Act of 1933 ("Securities Act") [15 U.S.C. 77a *et seq.*]; and adopting sections to Form N-PORT [referenced in

17 CFR 274.150] and Form N-CEN [referenced in 17 CFR 274.101] under the Investment Company Act.¹

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I. INTRODUCTION

Redeemability is a defining feature of open-end investment companies.² At the time the Act was adopted, this feature was recognized as unique to open-end investment companies,³ and the Act's classification of management investment companies as either open-end ("open-end funds" or "funds")⁴ or closed-end, upon which several of the Act's other provisions depend, turns on whether the investment company's shareholders have the right to redeem their shares on demand. When the Investment Company Act was enacted, it was understood that redeemability meant that an open-end fund had to have a liquid portfolio.⁵ Since the 1940s, the Commission has stated that open-end funds should maintain highly liquid portfolios and recognized that this

² See Investment Trusts and Investment Companies: Letter from the Acting Chairman of the SEC, A Report on Abuses and Deficiencies in the Organization and Operation of Investment Trusts and Investment Companies (1939), at n.206 ("[T]he salient characteristic of the open-end investment company...was that the investor was given a right of redemption so that he could liquidate his investment at or about asset value at any time that he was dissatisfied with the management or for any other reason."). An open-end investment company is required by law to redeem its securities on demand from shareholders at a price approximating their proportionate share of the fund's net asset value ("NAV") next calculated by the fund after receipt of such redemption request.

³ See Investment Trusts and Investment Companies: Hearings on S. 3580 before a Subcomm. of the Senate Comm. on Banking and Currency, 76th Cong., 3d Sess. (1940) ("1940 Senate Hearings Transcript"), at 453 (Statement of Mahlon E. Traylor) ("Open-end companies are unlike any other type of investment company, principally because of the highly important distinguishing feature that their shareholders can, by contract right, withdraw their proportionate interest at will simply by surrendering their shares to the company for redemption at liquidating value.").

⁴ In-Kind ETFs (as defined below) are included when we refer to "funds" or "open-end funds" throughout this Release, except in the sections discussing classifying the liquidity of a fund's portfolio positions and the highly liquid investment minimum requirement, from which In-Kind ETFs are excepted. We have done this for conciseness and we recognize that these naming conventions differ from the text of rule 22e-4. Additionally, while a money market fund is an open-end management investment company, money market funds are not subject to the rules and amendments we are adopting (except certain amendments to Form N-CEN and Form N-1A) and thus are not included when we refer to "funds" or "open-end funds" in this Release except where specified.

⁵ See Investment Trusts and Investment Companies: Hearings on H.R. 10065 before a Subcomm. of the House Comm. on Interstate and Foreign Commerce, 76th Cong., 3d Sess. 112 (1940), at 57 (Statement of Robert E. Healy) ("due to the right of the stockholder to come in and demand a redemption, the [open-end fund] has to keep itself in a very liquid position. That is, it has to be able to turn its securities into money on very short notice.").

may limit their ability to participate in certain transactions in the capital markets.⁶ Section 22(e) of the Act enforces the shareholder's right of prompt redemption in open-end funds by compelling such funds to make payment on shareholder redemption requests within seven days of receiving the request. Potential dilution of shareholders' interests in open-end funds also was a significant concern of Congress when drafting the Act and was among the noted abuses that led to the enactment of the Act, as reflected in sections 22(a) and (c).⁷

Although the Investment Company Act provides funds with a seven-day window to pay proceeds upon an investor's redemption, the settlement period for open-end fund redemptions has shortened considerably over the years. There are several reasons for shorter settlement periods, including broker-dealer settlement cycle requirements,⁸ evolving industry standards, and technological advances in the settlement infrastructure.⁹ In addition, many funds state in their prospectuses that investors can ordinarily expect to receive redemption proceeds in shorter

⁶ See Investment Trusts and Investment Companies: Report of the Securities and Exchange Commission (1942), at 76 ("Open-end investment companies, because of their security holders' right to compel redemption of their shares by the company at any time, are compelled to invest their funds predominantly in readily marketable securities. Individual open-end investment companies, therefore, as presently constituted, could participate in the financing of small enterprises and new ventures only to a very limited extent.").

⁷ See 1940 Senate Hearings Transcript, *supra* footnote 3, at 37, 137-145 (stating that, among the abuses that served as a backdrop for the Act, were "practices which resulted in substantial dilution of investors' interests", including backward pricing by fund insiders to increase investment in the fund and thus enhance management fees, but causing dilution of existing investors in the fund).

⁸ Open-end funds that are redeemed through broker-dealers must meet redemption requests within three business days because broker-dealers are subject to rule 15c6-1 under the Securities Exchange Act of 1934 (the "Exchange Act"), which establishes a three-day (T+3) settlement period for security trades effected by a broker or a dealer.

⁹ Generally, settlement time frames for mutual fund shares have been shortening for decades. See Open-End Fund Liquidity Risk Management Programs; Swing Pricing; Re-Opening of Comment Period for Investment Company Reporting Modernization Release, Investment Company Act Release No. 31835 (Sept. 22, 2015) [80 FR 62274 (Oct. 15, 2015)] ("Proposing Release"), at section II.C.2. See also, e.g., T+2 Industry Steering Committee, Shortening the Settlement Cycle: The Move to T+2 (2015), at n.18, available at <http://www.ust2.com/pdfs/ssc.pdf> ("In today's environment ... open-end mutual funds settle through NSCC generally on a T+1 basis (excluding certain retail trades which typically settle on T+3)."). See also Amendment to Securities Transaction Settlement Cycle, Securities Exchange Act Release No. 34-78962 (September 29, 2016) [81 FR 69240 (October 05, 2016)].

periods than seven days.¹⁰ At the same time, open-end funds have experienced significant growth,¹¹ markets have grown more complex, and funds pursue more complex investment strategies, including fixed income and alternative investment strategies focused on less liquid asset classes. These trends have made the role of fund liquidity and liquidity management more important than ever in reducing the risk that a fund will be unable to meet its obligations to redeeming shareholders or other obligations under applicable law, while also minimizing the impact of those redemptions on the fund (*i.e.*, mitigating investor dilution). Furthermore, recent events have demonstrated the significant adverse consequences to remaining investors in a fund when it fails to adequately manage liquidity.¹²

We remain committed, as the primary regulator of open-end funds, to designing regulatory programs that respond to the risks associated with the increasingly complex portfolio

¹⁰ See, *e.g.*, Fidelity Commonwealth Trust rule 485(b) Registration Statement (June 29, 2016), *available at* <https://www.sec.gov/Archives/edgar/data/205323/000137949116004602/filing776.htm> (“Normally, redemptions will be processed by the next business day, but it may take up to seven days to pay the redemption proceeds if making immediate payment would adversely affect the fund.”); PIMCO Funds rule 485(b) Registration Statement (Feb. 26, 2016), *available at* https://www.sec.gov/Archives/edgar/data/810893/000119312516481663/d149399d485bpos.htm#chapter_7_3686 (“Redemption proceeds will normally be mailed to the redeeming shareholder within three calendar days . . . [but] may take up to seven days.”).

¹¹ As of the end of 2015, there were 10,633 open-end funds (excluding money market funds, but including ETFs), as compared to 5,279 at the end of 1996. See Investment Company Institute, 2016 Investment Company Fact Book (2016) (“2016 ICI Fact Book”), *available at* https://www.ici.org/pdf/2016_factbook.pdf.

¹² For example, during the pendency of our proposal, the Third Avenue Focused Credit Fund, a non-diversified open-end fund, adopted a plan of liquidation, and requested and obtained exemptive relief to suspend shareholder redemptions, following a period of heavy redemption requests that the fund stated reduced the fund’s portfolio liquidity. The Third Avenue Focused Credit Fund has yet to complete the liquidation of fund assets. Additionally, the fund reported that, as a result of the continuous liquidation of securities without reinvestment, the fund became increasingly more concentrated, which negatively impacted performance. See Third Avenue Trust and Third Avenue Management LLC, Investment Company Act Release No. 31943 (Dec. 16, 2015) (“Third Avenue Temporary Order”); Third Avenue Focused Credit Fund Semi-Annual Report to Shareholders (April 30, 2016), *available at*: <http://thirdave.com/wp-content/uploads/2016/06/Q2-2016-TFCIX-Semi-Annual-Report.pdf> (“The Fund is considerably more concentrated than it has ever been. As we have been liquidating securities and not recycling the cash, the top 10 holdings have increased from 32.6% at March 31, 2015 to approximately 67% of the Fund. We are increasingly dependent on the top 10 names to drive performance.”). See also *infra* footnotes 81-84 and accompanying text.

composition and operations of the asset management industry. In developing the proposed rules, Commission staff engaged with large and small fund complexes to better understand funds' management of liquidity risk. Through these outreach efforts our staff has learned that, while some funds and their managers have developed extensive liquidity risk management programs, others have dedicated significantly fewer resources, attention and focus to managing liquidity risk in a formalized way. We believe that it is in the interest of funds and fund investors to create a regulatory framework that would reduce the risk that a fund will be unable to meet its redemption obligations and minimize dilution of shareholder interests by promoting stronger and more effective liquidity risk management across open-end funds.

We sought to address these goals with the proposal on fund liquidity risk management that we published in late 2015.¹³ This proposal would have required funds to: establish liquidity risk management programs, including classifying and monitoring each portfolio asset's level of liquidity and designating a minimum amount of highly liquid investments; provide additional reporting to us; and enhance disclosure to investors regarding the liquidity of fund portfolios and how funds manage liquidity risk and redemption obligations. In order to provide funds with an additional tool to mitigate potential dilution and to manage fund liquidity, the proposal included amendments to rule 22c-1 under the Act to permit funds (except money market funds and ETFs) to use "swing pricing," a process of adjusting the NAV of a fund's shares to pass on to purchasing or redeeming shareholders more of the costs associated with their trading activity.¹⁴

¹³ See Proposing Release, *supra* footnote 9.

¹⁴ We note that we are adopting swing pricing, and associated changes to Form N-PORT and N-CEN in a companion release. See Investment Company Swing Pricing, Investment Company Act Release No. 32316 (Oct. 13, 2016) ("Swing Pricing Adopting Release"). All comments on the proposed swing pricing rules and associated issues are discussed in that release.

We received more than 70 comment letters on the proposal.¹⁵ The majority of commenters generally supported a requirement that funds adopt a formal, written liquidity risk management program that is risk oriented and principles based, although many provided suggestions and alternatives for us to consider.¹⁶ Many commenters objected to certain aspects of the proposal, particularly the liquidity classification requirement, the three-day liquid asset minimum, and the requirement that funds publicly disclose the liquidity of each portfolio position.¹⁷ Several commenters specifically supported applying the liquidity risk management requirements to all open-end funds, with the exception of money market funds.¹⁸ Others expressed concerns with regard to ETFs, and recommended that the Commission exclude ETFs that primarily satisfy purchase and redemption orders in kind from the liquidity risk management requirements or develop a more tailored liquidity risk management program applicable to ETFs.¹⁹

Today, after consideration of the many comments we received, we are adopting the

¹⁵ The comment letters on the Proposing Release (File No. S7-16-15) are *available at* <http://www.sec.gov/comments/s7-16-15/s71615.shtml>.

¹⁶ See, e.g., Comment Letter of Investment Company Institute (Jan. 13, 2016) (“ICI Comment Letter I”); Comment Letter of BlackRock Inc. (Jan. 13, 2016) (“BlackRock Comment Letter”); Comment Letter of Charles Schwab Investment Management (Jan. 13, 2016) (“Charles Schwab Comment Letter”).

¹⁷ See, e.g., ICI Comment Letter I (arguing that the six-category asset classification scheme and three-day liquid asset minimum are problematic and encourage a “one-size-fits-all” approach rather than a risk-based approach to liquidity management); Charles Schwab Comment Letter (arguing that public disclosure of the liquidity of each portfolio position may confuse and mislead investors).

¹⁸ See, e.g., Comment Letter of HSBC Global Asset Management (Jan. 13, 2016) (“HSBC Comment Letter”) (supporting the exclusion of closed-end funds and money market funds from the liquidity risk management requirements); Charles Schwab Comment Letter (supporting the application of the risk management requirements to ETFs).

¹⁹ See, e.g., ICI Comment Letter I; BlackRock Comment Letter (suggesting that the Commission should develop a separate and comprehensive rule addressing the different types of ETFs and their respective risks). The comments we received addressing exchange-traded managed funds (“ETMFs”) suggested that the Commission treat ETMFs in the same manner as ETFs and did not recommend any further unique treatment of ETMFs. See Comment Letter of the American Bar Association (Feb. 11, 2016); Comment Letter of Financial Services Roundtable (Jan. 13, 2016) (“FSR Comment Letter”).

proposal with a number of modifications to enhance the effectiveness and workability of the rule's liquidity risk management requirements. The Commission is adopting new rule 22e-4, which will require each fund to adopt and implement a written liquidity risk management program designed to assess and manage the fund's liquidity risk, which will be overseen by the fund's board. As discussed in more detail below, the Commission is modifying from the proposal some of the liquidity risk management program elements, including reducing the liquidity classification categories from six to four, providing tailored program requirements for ETFs, and revising the fund board oversight requirements.

The new rule contains a highly liquid investment minimum requirement, which is similar to the proposed three-day liquid asset minimum. However, instead of barring a fund from purchasing securities other than highly liquid investments if the fund falls below its minimum as proposed for the three-day liquid asset minimum, under the adopted rules, if the fund falls below its highly liquid investment minimum, it would: (1) report that occurrence to the fund board at its next scheduled meeting; (2) if it is below the minimum for more than a brief period of time, report the occurrence to the board and, on Form N-LIQUID, to the Commission within one business day; and (3) develop and provide to the board a plan for restoring the minimum within a reasonable period of time.

We also are adopting a 15% limitation on funds' purchases of illiquid investments, largely as proposed, but the definition of investments considered illiquid and subject to this 15% limit has been enhanced and substantially harmonized with the classification system we are adopting today. Additionally, the Commission is adopting new reporting Form N-LIQUID, which will require a fund to confidentially notify the Commission within one business day if the fund's illiquid investment holdings exceed 15% of its net assets or if its highly liquid

investments fall below its minimum for more than a brief period of time. Furthermore, much as proposed, the Commission is adopting reporting and disclosure requirements under Form N-CEN, Form N-PORT, and Form N-1A regarding liquidity risk and liquidity risk management. In response to commenters' concerns, a number of the additional reporting items on Form N-PORT will be non-public.²⁰

Taken together, these reforms are designed to provide investors with increased protection regarding how liquidity in their open-end funds is managed, thereby reducing the risk that funds will be unable to meet redemption or other legal obligations, and mitigating dilution of the interests of fund shareholders. These reforms also are intended to give investors better information to make investment decisions, and to give the Commission better information to conduct comprehensive monitoring and oversight of an ever-evolving fund industry.

II. BACKGROUND

A. Open-End Funds

As we discussed in the Proposing Release, individual and institutional investors increasingly have come to rely on investments in open-end funds to meet their financial needs and access the capital markets. At the end of 2015, 54.9 million households, or 44.1 percent of all U.S. households owned funds.²¹ Funds allow investors to pool their investments with those of other investors so that they may together benefit from fund features such as professional investment management, diversification, and liquidity. Fund shareholders share the gains and

²⁰ If any provision of these rules, or the application thereof to any person or circumstance, is held to be invalid, such invalidity shall not affect other provisions or application of such provisions to other persons or circumstances that can be given effect without the invalid provision or application.

²¹ See 2016 ICI Fact Book, *supra* footnote 11, at 12.

losses of the fund, and also share its costs.²²

As noted above, investors in mutual funds can redeem their shares on each business day and, by law, must receive approximately their *pro rata* share of the fund's net assets (or its cash value) within seven calendar days after receipt of a redemption request.²³ Under the Act's definition of redeemable security, open-end funds have the right to redeem shareholders in cash or in kind (that is, by delivering certain assets from the fund's portfolio, rather than cash, to a redeeming shareholder).²⁴ However, while funds often reserve the right to redeem in kind for

²² There are currently four primary kinds of open-end funds: money market funds, mutual funds other than money market funds, ETFs, and ETMFs. Money market funds are a special kind of mutual fund that complies with the requirements of rule 2a-7 under the Act. ETFs registered with the Commission are organized either as open-end management investment companies or unit investment trusts. See section 4(2) of the Act (defining "unit investment trust" as an investment company which (A) is organized under a trust indenture, contract of custodianship or agency, or similar instrument, (B) does not have a board of directors, and (C) issues only redeemable securities, each of which represents an undivided interest in a unit of specified securities, but does not include a voting trust). Most ETFs are organized as open-end management investment companies and, except where specified, when we refer to ETFs in this Release, we are referring to ETFs that are organized as open-end management investment companies.

²³ See section 2(a)(32) of the Act (defining a "redeemable security" as any security, other than short-term paper, that entitles its holder to receive approximately his proportionate share of the issuer's current net assets, or the cash equivalent thereof), and section 22(e) of the Act (providing, in part, that no registered investment company shall suspend the right of redemption, or postpone the date of payment upon redemption of any redeemable security in accordance with its terms for more than seven days after tender of the security absent specified unusual circumstances). See also rule 22c-1 (requiring that redeemable securities be transacted "at a price based on the current net asset value of such security which is next computed after receipt of a tender of such security for redemption or of an order to purchase or sell such security").

²⁴ Prior to the adoption of the Act, open-end funds largely redeemed fund shares in cash and, as such, a redeemable security was generally understood to mean a security that was redeemable for cash. See, e.g., Investment Trusts and Investment Companies: Senate Report 1775 on S. 4108, 76th Cong., 3d Sess. (1940), at 2 ("[a redeemable security] is, a security which provides that the holder may tender it to the company at any time and receive a sum of money approximating the current market value of his proportionate interest in the company's assets." [emphasis added]). However, section 2(a)(32) has traditionally been interpreted to give funds the option of redeeming their shares in cash or in kind. See, e.g., Investment Trusts and Investment Companies: Report of the Securities and Exchange Commission Part I (1939) at 21 ("A company is of the 'open-end' type if a shareholder has the right to require the company to purchase or redeem or cause the purchase or redemption of the shares representing his proportionate interest in the company's properties, or the cash equivalent of such interest."); see also Adoption of (1) Rule 18f-1 Under the Investment Company Act of 1940 to Permit Registered Open-End Investment Companies Which Have the Right to Redeem In Kind to Elect to Make Only Cash Redemptions and (2) Form N-18F-1, Investment Company Act Release No. 6561 (June 14, 1971) [36 FR 11919 (June 23, 1971)] ("Rule 18f-1 and Form N-18F-1 Adopting Release") (stating that the definition of "redeemable security" in section 2(a)(32) of the Investment Company Act "has traditionally been interpreted as giving the issuer the option of redeeming its

certain redemption requests, the majority of mutual funds redeem only in cash for a variety of reasons, including the limited ability and/or unwillingness of fund shareholders to receive securities rather than cash.²⁵

ETFs also offer investors an undivided interest in a pool of assets.²⁶ ETF shares, similar to listed stocks, are bought and sold throughout the day by investors on an exchange through a broker-dealer.²⁷ In addition, like mutual funds, ETFs provide redemption rights on a daily basis, but, pursuant to exemptive orders, such redemption rights may be exercised only by certain large market participants – typically broker-dealers – called “authorized participants.”²⁸ When an authorized participant transacts with an ETF to purchase and sell ETF shares, these share transactions are structured in large blocks called “creation units.” Most ETFs are structured so that an authorized participant will purchase a creation unit with a “portfolio deposit,” which is a basket of assets (and sometimes cash) that generally reflects the composition of the ETF’s portfolio.²⁹ After purchasing a creation unit, an authorized participant may hold the ETF shares

securities in cash or in kind.”).

²⁵ See Comment Letter of Invesco Advisers, Inc. (Jan. 13, 2016) (“Invesco Comment Letter”) (“The primary problem with using redemptions in kind to meet large redemptions is the willingness and ability of the redeeming entity to receive securities instead of cash.”). See also Money Market Fund Reform; Amendments to Form PF, Investment Company Act Release No. 30551 (June 5, 2013) [78 FR 36834, (June 19, 2013)] (“2013 Money Market Fund Reform Proposing Release”), at n.473 and accompanying text (stating that “[m]any commenters believed that requiring in-kind redemptions would be technically unworkable due to complex valuation and operational issues that would be imposed on both the fund and on investors receiving portfolio securities.”).

²⁶ Since 2003, the number of ETFs traded in U.S. markets has increased by more than 2,200 funds, and the assets held by ETFs have increased from \$151 billion at the end of 2003 to \$2.1 trillion at the end of 2015. See 2016 ICI Fact Book, *supra* footnote 11, at 60.

²⁷ See Exchange-Traded Funds, Investment Company Act Release No. 28193 (Mar. 11, 2008) [73 FR 14618 (Mar. 18, 2008)] (“ETF Proposing Release”).

²⁸ Authorized participants may purchase and redeem ETF shares at the ETF’s NAV from the ETF.

²⁹ The ETF publicly declares the contents of the portfolio deposit before the beginning of the trading day. See Request for Comment on Exchange-Traded Products, Securities Exchange Act Release No. 75165 (June 12, 2015) [80 FR 34729 (June 17, 2015)] (“2015 ETP Request for Comment”), at nn.19-20 and accompanying text.

or sell (or lend) some or all of them to investors in the secondary market. Similarly, for most ETFs, when an authorized participant wishes to redeem ETF shares, it presents a creation unit of ETF shares to the ETF for redemption and receives in return a “redemption basket,” the contents of which are publicly declared by the ETF before the beginning of the trading day.³⁰

ETMFs are a hybrid between a traditional mutual fund and an ETF.³¹ Like ETFs, ETMFs have shares listed and traded on a national securities exchange; directly issue and redeem shares in creation units only; impose fees on creation units issued and redeemed to authorized participants to offset the related costs to the ETMFs; and primarily utilize in-kind transfers of portfolio deposits in issuing and redeeming creation units. Like mutual funds, ETMFs are bought and sold at prices linked to NAV and seek to maintain the confidentiality of their current portfolio positions.

B. The Role of Liquidity in Open-End Funds

1. Introduction

A hallmark of open-end funds is that they must be able to convert some portion of their portfolio holdings into cash on a frequent basis because they issue redeemable securities, and are required by section 22(e) of the Investment Company Act to make payment to shareholders for securities tendered for redemption within seven days of their tender (although some funds may reserve the right to make redemptions in kind for certain redemption requests). As a practical

³⁰ See ETF Proposing Release, *supra* footnote 27, at n.24 and accompanying text.

³¹ The Commission approved ETMFs in 2014 and the first ETMFs have since been launched. See Eaton Vance Management, *et al.*, Investment Company Act Release No. 31333 (Nov. 6, 2014) (notice of application) (“ETMF Notice”) and In the Matter of Eaton Vance Management, *et al.*, Investment Company Act Release No. 31361 (Dec. 2, 2014) (order) (“ETMF Order”). Given the similarities between ETFs and ETMFs and that the new requirements will apply to ETMFs as they do to ETFs, this Release generally includes ETMFs in the term “ETF” and separately mentions ETMFs only if appropriate. See *supra* footnote 19.

matter, many investors expect to receive redemption proceeds in fewer than seven days as some mutual funds represent in their prospectuses that they will generally pay redemption proceeds on a next business day basis.³² Given the statutory and regulatory requirements for meeting redemption requests, as well as any potential liability for representations made to investors regarding payment of redemption proceeds, a mutual fund must adequately manage the liquidity of its portfolio so that redemption requests can be satisfied in a timely manner.

Sufficient liquidity of ETF portfolio positions also is important. Many ETFs typically make in-kind redemptions of creation units, which can mitigate the need for ETFs to maintain cash compared to mutual funds, particularly if the in-kind redemptions are of a representative basket of the ETF's portfolio assets that do not alter the ETF's liquidity profile. However, transferring illiquid or less liquid instruments to the redeeming authorized participants could result in a liquidity cost to the authorized participants or other market participants, which could increase the cost of their participation and interfere with their role in the ETF arbitrage mechanism, resulting in the ETF trading at increased bid-ask spreads and/or a premium or discount to its NAV and ultimately impacting investors.³³ Declining liquidity in an ETF's basket assets also could affect the ability of an authorized participant or other market participants to readily assemble the basket for purchases of creation units and to sell securities received upon redemption of creation units.

In addition, all ETFs reserve the right to satisfy redemption requests in cash rather than in

³² See *supra* footnote 10; see also *supra* footnote 8 (noting that open-end funds that are redeemed through broker-dealers must meet redemption requests within three business days due to the application of rule 15c6-1 under the Exchange Act).

³³ A significant amount of illiquid securities in an ETF's portfolio can make arbitrage opportunities more difficult to evaluate because it would be difficult for market makers to price, trade, and hedge their exposure to the ETF. See *infra* footnote 843 and accompanying text. Commenters noted that the effective functioning of this arbitrage mechanism has been pivotal to the operation of ETFs. See ICI Comment Letter I.

kind, but the extent to which ETFs satisfy redemption requests in cash varies. While many ETFs redeem in cash only rarely, some ETFs ordinarily redeem authorized participants in cash. ETFs that elect to redeem authorized participants in cash in more than a *de minimis* amount, like mutual funds, would need to ensure that they have adequate portfolio liquidity (in conjunction with any other liquidity sources) to meet shareholder redemptions.

As noted above, ETMFs have features of both mutual funds and ETFs. As ETMFs would redeem their shares on a daily basis from authorized participants, ETMFs would need to hold sufficiently liquid assets to meet such redemptions to the extent that the ETMFs satisfy the redemption requests in cash. As with ETFs, however, the ETMFs' practice of making in-kind redemptions could mitigate the need to maintain cash. Further, as ETMF market makers would not engage in the same kind of arbitrage as ETF market makers because the pricing of the ETMF shares is linked to the fund's NAV (subject to execution costs), the liquidity of an ETMF's portfolio is more relevant to an ETMF's ability to meet redemptions and the amount of execution costs than to an arbitrage function.

2. *Statutory and Regulatory Requirements*

An open-end fund's failure to maintain sufficiently liquid assets or otherwise manage liquidity implicates multiple provisions of the Act, as well as other federal securities laws and regulations. Section 2(a)(32) of the Act,³⁴ when read together with sections 4(2) and 5(a),³⁵ creates an obligation on open-end funds and UITs to provide shareholders with approximately their proportionate share of NAV upon the presentation of a redemption request. Section 22(e)

³⁴ See *supra* footnote 23.

³⁵ Section 4(2) of the Act defines a "unit investment trust" as an investment company which, among other things, "issues only redeemable securities." Section 5(a) of the Act defines an "open-end company" as a "management company which is offering for sale or has outstanding any redeemable security of which it is the issuer".

of the Act provides in turn that the right of redemption may not be suspended and payment of redemption proceeds may not be postponed for more than seven days after tender of a redeemable security absent specified unusual circumstances.³⁶

For decades, the Commission has recognized that because open-end funds hold themselves out at all times as being prepared to meet these statutory redemption requirements, they have a responsibility to manage the liquidity of their investment portfolios in a manner consistent with those obligations and any other related representations.³⁷ Thus, long-standing Commission guidelines contain a liquidity standard that generally limits an open-end fund's aggregate holdings of "illiquid assets" to no more than 15% of the fund's net assets (the "15% guideline").³⁸ Under the 15% guideline, a portfolio security or other asset is considered illiquid

³⁶ Section 22(e) of the Act permits open-end funds to suspend redemptions and postpone payment for redemptions already tendered for any period during which the New York Stock Exchange ("NYSE") is closed (other than customary weekend and holiday closings) and in three additional situations if the Commission has made certain determinations. First, a fund may suspend redemptions for any period during which trading on the NYSE is restricted, as determined by the Commission. Second, a fund may suspend redemptions for any period during which an emergency exists, as determined by the Commission, as a result of which it is not reasonably practicable for the fund to: (i) liquidate its portfolio securities, or (ii) fairly determine the value of its net assets. Third, a fund may suspend redemptions for such other periods as the Commission may by order permit for the protection of fund shareholders. The Commission has rarely issued orders permitting the suspension of redemptions for periods of restricted trading or emergency circumstances but has issued orders "for such other periods" under section 22(e)(3) on a few occasions. *See, e.g.*, In the Matter of The Reserve Fund, on behalf of two of its series, the Primary Fund and the U.S. Government Fund, Investment Company Act Release No. 28386 (Sept. 22, 2008) [73 FR 55572 (Sept. 25, 2008)]; In the Matter of Municipal Lease Securities Fund, Inc., Investment Company Act Release No. 17245 (Nov. 29, 1989); Third Avenue Temporary Order, *supra* footnote 12. Money market funds are able to suspend redemptions in certain limited circumstances. *See* rule 22e-3 under the Act; *see also* the Proposing Release, *supra* footnote 9, at n.155.

³⁷ *See* Statement Regarding "Restricted Securities", Investment Company Act Release No. 5847 (Oct. 21, 1969) [35 FR 19989 (Dec. 31, 1970)] ("Restricted Securities Release") ("Because open-end companies hold themselves out at all times as being prepared to meet redemptions within seven days, it is essential that such companies maintain a portfolio of investments that enable them to fulfill that obligation. This requires a high degree of liquidity in the assets of open-end companies because the extent of redemption demands or other exigencies are not always predictable."); *see also* Resale of Restricted Securities; Changes to Method of Determining Holding Period of Restricted Securities Under Rules 144 and 145, Investment Company Act Release No. 17452 (Apr. 23, 1990) [55 FR 17933 (Apr. 30, 1990)] ("Rule 144A Release") (adopting rule 144A under the Securities Act of 1933 (the "Securities Act")).

³⁸ Revisions of Guidelines to Form N-1A, Investment Company Act Release No. 18612 (Mar. 12, 1992) [57 FR 9828 (Mar. 20, 1992)] ("Guidelines Release"), at section III ("If an open-end company holds a

if it cannot be sold or disposed of in the ordinary course of business within seven days at approximately the value at which the fund has valued the investment.³⁹ The 15% guideline has generally caused funds to limit their exposures to particular types of securities that cannot be sold within seven days and that the Commission and staff have indicated may be illiquid, depending on the facts and circumstances, such as private equity securities and certain other privately placed or restricted securities⁴⁰ as well as certain instruments or transactions not maturing in seven days or less, including term repurchase agreements.⁴¹

Relatedly, the Commission has recognized that the liquidity management practices of open-end funds implicate certain antifraud provisions of the securities laws.⁴² For example,

material percentage of its assets in securities or other assets for which there is no established market, there may be a question concerning the ability of the fund to make payment within seven days of the date its shares are tendered for redemption. The usual limit on aggregate holdings by an open-end investment company of illiquid assets is 15% of its net assets.”). The Guidelines Release modified prior Commission guidance that set a 10% limit on illiquid assets for open-end funds. See Restricted Securities Release, *supra* footnote 37.

³⁹ Guidelines Release, *supra* footnote 38; see also ETF Proposing Release, *supra* footnote 27; Valuation of Debt Instruments and Computation of Current Price Per Share by Certain Open-End Investment Companies (Money Market Funds), Investment Company Act Release No. 13380 (July 11, 1983) [48 FR 32555 (July 18, 1983)] (“Money Market Funds Release”); see also Rule 144A Release, *supra* footnote 37.

⁴⁰ See Restricted Securities Release, *supra* footnote 37. Securities offered pursuant to rule 144A under the Securities Act may be considered liquid under the 15% guideline depending on certain factors. See Rule 144A Release, *supra* footnote 37.

⁴¹ See Periodic Repurchases by Closed-End Management Investment Companies; Redemptions by Open-End Management Investment Companies and Registered Separate Accounts at Periodic Intervals or with Extended Payment, Investment Company Act Release No. 18869 (July 28, 1992) [57 FR 34701 (Aug. 6, 1992)] (“Interval Fund Proposing Release”). The Commission has not established a set of required factors that must be considered when assessing the liquidity of these or other types of securities under the 15% guideline. However, in the context of rule 144A securities, the Commission had provided “examples of factors that would be reasonable for a [fund’s] board of directors to take into account” but which would not necessarily be determinative. See Rule 144A Release, *supra* footnote 37. These factors include: the frequency of trades and quotations for the security; the number of dealers willing to purchase or sell the security and the number of other potential purchasers; dealer undertakings to make a market in the security; and the nature of the security and the nature of the marketplace in which it trades, including the time needed to dispose of the security, the method of soliciting offers, and the mechanics of transfer.

⁴² See Restricted Securities Release, *supra* footnote 37 (“To the extent a material percentage of the assets of an open-end company consist of restricted securities which cannot publicly be sold without registration under the Securities Act, the ability of the company to comply with the provisions of the Investment Company Act relating to redemption, and to fulfill the implicit representations made in its prospectus with

section 34(b) of the Act makes it unlawful for any person to make any untrue statement of a material fact in any document filed with the Commission or transmitted pursuant to the Act, or the keeping of which is required by section 31(a) of the Act, or to omit to state any fact necessary in order to prevent the statements made therein, in light of the circumstances under which they were made, from being materially misleading.⁴³

In addition, section 206(4)⁴⁴ of the Investment Advisers Act of 1940 (“Advisers Act”) and rule 206(4)-8 thereunder make it unlawful for any adviser to an investment fund to engage in

respect thereto, may be adversely affected. In any such situation, the investment company concerned and the persons responsible for the sale of its securities should give careful consideration to the possible application of the provisions of section 10(b) of the Exchange Act and Rule 10b-5 thereunder.”); *see also* Money Market Funds Release, *supra* footnote 39 (explaining that because “most money market funds promise investors that they will receive proceeds much sooner” than seven days and “experience a greater and perhaps less predictable volume of redemption transactions than do other investment companies,” they “must have sufficient liquidity to meet redemption requests on a more immediate basis”). The Commission has considered the failure to take risk-limiting measures in other contexts to implicate antifraud provisions as well. *See* Adoption of Revisions to Rules Regulating Money Market Funds, Investment Company Act Release No. 18005 (Feb. 20, 1991) (“The Commission believes that there is a significant danger of misleading investors if an investment company holds itself out as a money market fund when it engages in investment strategies not consistent with the risk-limiting conditions of rule 2a-7. It is therefore necessary and appropriate in the public interest and for the protection of investors for the Commission to adopt a new paragraph (b) of rule 2a-7 prohibiting an investment company from holding itself out as a ‘money market fund’ unless it meets the risk-limited conditions of rule 2a-7.”).

⁴³ Exercising authority under section 34(b) and sections 9(b), 38(a), and 42 of the Act, the Commission adopted paragraph (b) of rule 2a-7 in 1997, which provides that “it shall be an untrue statement of a material fact within the meaning of section 34(b) of the Act for a registered investment company . . . to hold itself out to investors as a money market fund or the equivalent of a money market fund” unless the fund complies with rule 2a-7. Under rule 2a-7, money market funds must maintain sufficient liquidity to meet reasonably foreseeable redemptions, generally must invest at least 10% of their portfolios in assets that can provide daily liquidity and at least 30% of their portfolios in assets that can provide weekly liquidity, and may not acquire any illiquid security if, immediately after the acquisition, the money market fund would have invested more than 5% of its total assets in illiquid securities. Rule 2a-7. Additionally, the Commission adopted amendments to rule 2a-7 in 2014 that, among other things: (i) give boards of directors of money market funds discretion to impose a liquidity fee or temporarily suspend the right of redemption if a fund’s weekly liquidity level falls below the required regulatory threshold; and (ii) require all non-government money market funds to impose a liquidity fee if the fund’s weekly liquidity level falls below a designated threshold of 10%, unless the fund’s board determines that imposing such a fee is not in the best interests of the fund. *See* Money Market Fund Reform; Amendments to Form PF, Investment Company Act Release No. 31166 (July 23, 2014) [79 FR 47736 (Aug. 14, 2014)] (“2014 Money Market Fund Reform Adopting Release”).

⁴⁴ Section 206(4) of the Advisers Act grants the Commission authority, by rules and regulations, to define and prescribe means reasonably designed to prevent such acts, practices, and courses of business as are fraudulent, deceptive, or manipulative.

any act, practice, or course of business which is fraudulent, deceptive, or manipulative.⁴⁵

Additionally, section 10(b) of the Exchange Act and rule 10b-5 thereunder make it unlawful, among other things, for any person, in connection with the purchase or sale of securities, to employ any device, scheme, or artifice to defraud or to make any untrue statement of a material fact or to omit to state a material fact necessary in order to make the statements made not misleading, or engage in any act, practice, or course of business which operates or would operate as a fraud or deceit upon any persons. Finally, section 17(a) of the Securities Act similarly makes it unlawful for any person in the offer or sale of any securities or any security-based swap agreement by the use of any means or instruments of transportation or communication in interstate commerce or by use of the mails, directly or indirectly, to employ any device, scheme, or artifice to defraud, to obtain money or property by means of any untrue statement of a material fact or any omission to state a material fact necessary in order to make the statements made, in light of the circumstances under which they were made, not misleading, or to engage in any transaction, practice, or course of business which operates or would operate as a fraud or deceit upon the purchaser.⁴⁶

As the Commission has previously noted, an open-end fund “represents to investors, in

⁴⁵ Additionally, section 206(1) of the Advisers Act makes it unlawful for an adviser to employ any device, scheme or artifice to defraud any client or prospective client, and section 206(2) makes it unlawful for an adviser to engage in any transaction, practice or course of business which operates as a fraud or deceit upon any client or prospective client. *See* Prohibition of Fraud by Advisers to Certain Pooled Investment Vehicles, Investment Advisers Act Release No. 2628 (August 3, 2007) [72 FR 44756 (August 9, 2007)], at n.3 and accompanying text.

⁴⁶ *See* In the Matter of Evergreen Investment Management Company, LLC and Evergreen Investment Services, Inc., Investment Company Act Release No. 28759 (June 8, 2009) (settled order) (“Evergreen Order”) (settlement of allegations that a mutual fund and its underwriter violated, and its adviser aided and abetted violations of, section 22(c) of the Act and rule 22c-1(a) through purchases and redemptions at materially overstated NAV. The order found that the fund’s adviser materially misrepresented the fund’s performance and NAV in reviewing and approving the fund’s prospectus in violation of section 34(b) of the Act.).

its prospectus, that it will, as required by section 22(e) of the Act, redeem its securities at approximate net asset value within seven days after tender.”⁴⁷ Similarly, an open-end fund that is redeemed through broker-dealers generally represents to investors that it will redeem its securities within three days, as required by rule 15c6-1.⁴⁸ Failure by a fund to maintain a sufficiently liquid portfolio or to otherwise manage liquidity risk calls into question the fund’s ability to fulfill the representations (explicit or implicit) made in its prospectus regarding its ability to meet its redemption obligations, as well as its status as an open-end fund. Such failure thus potentially exposes the fund, the investment adviser that manages the fund, and the persons responsible for the sale of the fund’s securities to the possible application of the antifraud provisions of the securities laws referenced above.⁴⁹

In addition to the foregoing concerns, an insufficiently liquid portfolio implicates provisions of the Act and regulations thereunder concerning fund valuation.⁵⁰ A fund’s ability to

⁴⁷ Restricted Securities Release, *supra* footnote 37.

⁴⁸ See also Proposing Release, *supra* footnote 9, at II.C.2 (“We also have observed that some open-end funds disclose in their prospectuses that they generally will satisfy redemption requests in even shorter periods of time than T+3, including on a next-business-day basis.”). As the Commission has previously noted, most money market funds disclose that they will pay redemptions even more quickly, often on the same day that the request is received by the fund, and thus “must have sufficient liquidity to meet redemption requests on a more immediate basis.” Money Market Funds Release, *supra* footnote 39.

⁴⁹ See Restricted Securities Release, *supra* footnote 37; Proposing Release, *supra* footnote 9, at n.77 (“Disclosures by open-end funds are subject to the antifraud provisions of the federal securities laws. Therefore there may be liability under these provisions if a fund fails to meet redemptions with seven days or any shorter time disclosed in the fund’s prospectus or advertising materials.”) (citing section 17(a) of the Securities Act, section 10(b) of the Exchange Act and rule 10b-5 under the Exchange Act, and section 34(b) of the Exchange Act); *id.* at n.109 (“[F]unds’ redemption obligations are also governed by any disclosure to shareholders that a fund has made about the time within which it will meet redemption requests, as disclosures by open-end funds are subject to the antifraud provisions of the federal securities laws.”); *id.* at III.C (“We believe that assessing and managing liquidity risk in a comprehensive manner is critical to a fund’s ability to honor redemption requests within the seven-day period required under section 22(e) . . . as well as within any shorter time period disclosed in the fund’s prospectus or advertising materials or required for purposes of rule 15c6-1.”); *id.* at III.C.3.d (requesting public comment on whether liquid asset minimum requirements tighter than three days may be warranted “given that there may be liability under the antifraud provisions of the federal securities laws if a fund fails to meet redemptions within any shorter time disclosed in the fund’s prospectus or advertising materials.”).

⁵⁰ See Restricted Securities Release, *supra* footnote 37 (describing the “serious problems of valuation” arising

properly value its portfolio securities is important, primarily because, under the Act, fund shareholders are entitled to their proportionate share of the fund's NAV upon redemption. Section 2(a)(41) of the Act and rule 2a-4 thereunder provide that in determining NAV, funds must value "securities for which market quotations are readily available" at current market value, and must value all other securities and assets at "fair value as determined in good faith by the board of directors." Illiquid or less liquid assets are less likely to have readily available market quotations, and thus are more likely to require a fair value determination. Determining the fair value of illiquid or less liquid assets consistent with section 2(a)(41) and rule 2a-4 can pose a number of challenges, some of which the Commission has previously described in the context of the acquisition of restricted securities,⁵¹ and improper valuation of such assets could result in liability under the antifraud provisions.⁵² The difficulties valuing illiquid or less liquid securities also implicate section 22(c) and rule 22c-1, which requires the use of the next-determined NAV for pricing purchases and redemptions. Transactions in such securities are more likely to be effected at prices that differ from fair value and, therefore, may result in increasing risk of investor dilution.⁵³

from fund acquisition of restricted securities); Guidelines Release, *supra* footnote 38 (noting that a fund "must maintain a high degree of portfolio liquidity" to meet the requirements under section 22(e), rule 22c-1(a) and rule 2a-4).

⁵¹ See Restricted Securities Release, *supra* footnote 37 at n.1 and accompanying text for a discussion of the various valuation challenges facing purchasers and sellers of restricted securities.

⁵² See Restricted Securities Release, *supra* footnote 37. As the Commission explained there, "[t]he offering price of securities issued by a management investment company is premised upon the net asset value of such shares as determined pursuant to [section 2(a)(41)] of the Act and Rule 2a-4 thereunder and is so represented in its prospectus." Consequently, "the improper valuation of restricted securities held by such a company would distort the net asset value of the shares being offered or, in the case of an open-end company, redeemed, and would therefore constitute a fraud and deceit within the meaning of section 10(b) and Rule 10b-5." See also *infra* footnote 66.

⁵³ See Restricted Securities Release, *supra* footnote 37, at n.1 ("the valuation of restricted securities by reference to the market price for unrestricted securities of the same class assumes that the market price for unrestricted securities of the same class is representative of the fair value of the securities. This may not be

A separate and independent issue arising from the failure to maintain a sufficiently liquid portfolio is the risk of shareholder dilution associated with improper fund pricing. Thus, section 22(a),⁵⁴ when read together with section 22(c),⁵⁵ gives the Commission broad powers to regulate the pricing of redeemable securities for the purpose of eliminating or reducing so far as reasonably practicable any dilution of the value of the outstanding fund shares. In its 1969 guidance on restricted securities, the Commission observed that a fund with significant holdings of restricted securities may have to engage in private sales on short notice to meet redemption obligations, which could result in the fund “receiving less than its carrying value of the restricted securities.”⁵⁶ That, in turn, would “result in a preference in favor of the redeeming shareholders and a diminution of the NAV per share of shareholders who have not redeemed,” further highlighting the need for funds to maintain “a high degree of liquidity” given the unpredictability of redemption demands or other exigencies.⁵⁷ Similarly, here, as a general matter, to the extent a fund’s portfolio is made up of a large amount of illiquid or less liquid securities, the fund may face difficulties meeting shareholder redemption requests while at the same time protecting the value of the shares of existing shareholders from dilution. Limited liquidity may hinder the

the case when the market for the unrestricted securities is very thin, *i.e.*, only a limited volume of shares are available for trading.”).

⁵⁴ Section 22(a) authorizes securities associations registered under section 15A of the Exchange Act to prescribe rules related to the method of computing purchase and redemption prices of redeemable securities and the minimum time period that must elapse after the sale or issue of such securities before any resale or redemption may occur, for the purpose of “eliminating or reducing so far as reasonably practicable any dilution of the value of other outstanding securities of such company or any other result of such purchase, redemption, or sale which is unfair to holders of such other outstanding securities.”

⁵⁵ Section 22(c) authorizes the Commission to make rules and regulations applicable to registered investment companies and to principal underwriters of, and dealers in, the redeemable securities of any registered investment company, whether or not members of any securities association, to the same extent, covering the same subject matter, and for the accomplishment of the same ends as are prescribed in section 22(a) in respect of the rules which may be made by a registered securities association governing its members.

⁵⁶ *See* Restricted Securities Release, *supra* footnote 37.

⁵⁷ *Id.*

portfolio manager's ability to defensively reposition the fund in anticipation of shifting or volatile markets because asset sales necessary to effectuate those shifts can be executed only with substantial liquidity costs. If limited liquidity in the fund's portfolio limits which assets the fund can sell to meet redemptions, such limited liquidity also could even result in the fund straying from its investment objective. Accordingly, a fund that does not effectively manage its liquidity risk may become constrained in its portfolio management, to the detriment of its investors and contrary to the way the fund represents its investment strategy to the public.⁵⁸ Therefore, when constructing a fund's portfolio of securities, it is essential for the fund to take into account the importance of maintaining a portfolio that is liquid enough to fulfill the fund's obligations under these provisions.⁵⁹

As previously discussed, in addition to the seven-day redemption requirement in section 22(e), rule 15c6-1 under the Exchange Act also affects the timing of open-end fund redemptions because the rule requires broker-dealers to settle securities transactions, including transactions in open-end fund shares, within three business days after the trade date. Furthermore, rule 22c-1 under the Act, the "forward pricing" rule, requires funds, their principal underwriters, and dealers to sell and redeem fund shares at a price based on the current NAV next computed after receipt of an order to purchase or redeem fund shares, even though fund assets may be sold in subsequent days in order to meet redemption obligations.⁶⁰

⁵⁸ See Restricted Securities Release, *supra* footnote 37 ("It is desirable that an open-end company retain maximum flexibility in the choice of portfolio securities which, on the basis of their relative investment merits, could best be sold where necessary to meet redemptions.").

⁵⁹ *Id.*

⁶⁰ See *infra* footnotes 73-76 and accompanying text for a discussion of why this calculation method is permitted under rule 22c-1 and rule 2a-4.

With the exception of money market funds subject to rule 2a-7 under the Act,⁶¹ the Commission has not promulgated rules requiring open-end funds to invest in a minimum level of liquid assets.⁶² As discussed above, the Commission has historically taken the position that, in order to comply with section 22(e) and other applicable legal provisions, open-end funds should maintain a high degree of portfolio liquidity to ensure that their portfolio securities and other assets can be sold and the proceeds used to satisfy redemptions in a timely manner.⁶³ In addition to a fund's "general responsibility to maintain a level of portfolio liquidity that is appropriate under the circumstances," the Commission has stated that open-end funds must engage in ongoing portfolio liquidity monitoring to determine whether an adequate level of portfolio liquidity is being maintained in light of their redemption obligations.⁶⁴

Registered investment companies and their investment advisers are subject to rules under the Act and the Advisers Act requiring them to adopt and implement written compliance policies and procedures reasonably designed to prevent various violations of laws and regulations. Rule 38a-1 under the Act requires registered investment companies to adopt and implement written policies and procedures reasonably designed to prevent violations of the federal securities laws by the fund, including policies and procedures that provide for the oversight of compliance by

⁶¹ See *supra* footnote 43.

⁶² However, the Commission has issued guidelines concerning funds' portfolio liquidity. See *supra* footnote 38 and accompanying text.

⁶³ See Restricted Securities Release, *supra* footnote 37; see also Rule 144A Release, *supra* footnote 37.

⁶⁴ Guidelines Release, *supra* footnote 38, at n.11 ("[T]he Commission expects funds to monitor portfolio liquidity on an ongoing basis to determine whether, in light of current circumstances, an adequate level of liquidity is being maintained. For example, an equity fund that begins to experience a net outflow of assets because investors increasingly shift their money from equity to income funds should consider reducing its holdings of illiquid securities in an orderly fashion in order to maintain adequate liquidity."). Therefore, under current SEC guidance, a fund experiencing net outflows may wish to consider managing its illiquid asset holdings to maintain adequate liquidity. Similarly, a fund may need to determine whether it is appropriate to take certain actions when the fund has determined that a previously liquid holding has become illiquid due to changed circumstances. See also Rule 144A Release, *supra* footnote 37, at n.61.

certain of the fund’s service providers, including the fund’s investment adviser; the rule also requires board approval and review of the service providers’ compliance policies and procedures. Additionally, rule 206(4)-7 under the Advisers Act requires registered investment advisers to adopt and implement written compliance policies and procedures reasonably designed to prevent violations of the Advisers Act and the rules thereunder by the adviser or any of its supervised persons. Such compliance policies and procedures should be appropriately tailored to reflect each firm’s particular compliance risks.⁶⁵ For example, an open-end fund holding a significant portion of its assets in securities with long settlement periods or that trade infrequently may be subject to relatively greater liquidity risks than other open-end funds, and should appropriately tailor its policies and procedures in light of its particular risks and circumstances. The Commission has brought enforcement actions under the compliance rules against funds and their advisers for failures to adopt and/or implement policies and procedures reasonably designed to prevent violations relating to, for example, disclosure, valuation, and pricing for assets with limited liquidity.⁶⁶

⁶⁵ In the compliance rules adopting release, the Commission highlighted certain, non-exclusive examples of particular areas to be addressed in funds’ and advisers’ policies and procedures. For example, it stated that funds or advisers should adopt policies and procedures regarding valuation and the pricing of portfolio securities and fund shares, as well as the processing of fund shareholder transactions in accordance with rule 22c-1. *See* Compliance Programs of Investment Companies and Investment Advisers, Investment Company Act Release No. 26299 (Dec. 17, 2003) [68 FR 74714 (Dec. 24, 2003)] (“Rule 38a-1 Adopting Release”) (“These pricing requirements are critical to ensuring fund shares are purchased and redeemed at fair prices and that shareholder interests are not diluted.”). The Commission also identified “portfolio management processes” as an issue that should be covered in the compliance policies and procedures of a fund or its adviser and indicated that each fund should tailor its policies and procedures to address the fund’s particular compliance risks. *See id.*, at n.82 (noting that the chief compliance officer’s annual report should discuss the fund’s particular compliance risks and any changes that were made to the policies and procedures to address newly identified risks). The Commission further identified “the accuracy of disclosures made to investors, clients, and regulators” as an issue to be covered.

⁶⁶ *See* In re Citigroup Alternative Investments LLC & Citigroup Glob. Markets Inc., Investment Advisers Act Release No. 4174 (Aug. 17, 2015) (settled order) (hedge fund adviser failed to adopt policies and procedures to prevent misrepresentations to private fund investors about fund performance and liquidity and violated rule 206(4)-7); In re J. Kenneth Alderman, CPA, *et al.*, Investment Company Act Release No. 30557 (Jun. 13, 2013) (settled order) (responsible directors failed to exercise their responsibilities with

Thus, funds and their advisers already are required to adopt and implement written compliance policies and procedures reasonably designed to prevent violations of various provisions implicated by fund liquidity, including those provisions identified above. The liquidity risk management program requirements of rule 22e-4, which we are adopting here, in effect will provide more specific and enhanced requirements in certain areas already generally covered by the compliance program rules.

In short, there are a number of statutory and regulatory provisions across the federal securities laws that bear on redemptions and the potential dilution of shareholders' interests. New rule 22e-4 advances the purposes of the Act by enhancing the ability of funds to meet their redemption obligations, reducing the risk of shareholder dilution, and reducing the potential for antifraud violations.⁶⁷

3. *Liquidity Management by Open-End Funds*

Portfolio managers consider a variety of factors in addition to liquidity when constructing

respect to adoption and implementation of valuation policies and procedures by mutual funds holding securities with reduced liquidity and caused funds' violations of rule 38a-1); In re UBS Glob. Asset Mgmt. (Americas) Inc., Investment Company Act Release No. 29920 (Jan. 17, 2012) (settled order) (mutual fund adviser failed to implement fair value pricing procedures with respect to subordinated fixed income securities without an active market and violated rule 38a-1); In re Morgan Asset Mgmt., Inc., *et al.*, Investment Company Act Release No. 29704 (June 22, 2011) (settled order) (mutual fund adviser failed to implement valuation procedures in pricing fixed income securities backed by subprime mortgages and violated rule 38a-1).

⁶⁷ One commenter argued that the Commission lacks the statutory authority to issue rule 22e-4. Comment Letter of Justin Banks (Jan. 13, 2016) ("Banks Comment Letter") (considering the authority conferred by sections 22(c), 22(e), and 38 of the Act, although we note that in referring to our authority under section 38, the commenter actually quoted and addressed the text of section 39 of the Act.). We disagree. The Commission has ample authority under the Act, including sections 22(c), 22(e), and 38(a), as well as under the antifraud provisions of the federal securities laws, to require that open-end funds maintain adequate liquidity and adopt responsible liquidity risk management policies and procedures. *See supra* section II.B.2. Section 38(a), in particular, gives the Commission authority to issue rules, regulations, and orders "as are necessary or appropriate to the exercise of the powers conferred upon the Commission elsewhere in this title." As discussed above, the liquidity risk management program required under rule 22e-4 is necessary and appropriate to reduce the risk that funds will be unable to meet their redemption obligations, to improve industry-wide liquidity risk management practices, to mitigate potential dilution of the interests of non-redeeming shareholders, and to increase the likelihood that funds are able to fulfill representations made in their prospectuses and advertising materials and implicit in their open-end status.

a fund's portfolio, including but not limited to the fund's investment strategies, economic and market trends, portfolio asset credit quality, and tax considerations. Nevertheless, meeting redemption obligations is fundamental for open-end funds, and funds must manage liquidity in order to meet these obligations.⁶⁸ Several factors influence how liquidity management by open-end funds affects the equitable treatment of investors in a fund, investor redemption behavior, and potentially the orderly operation of the markets when fulfilling redemption obligations.

First, it is important to consider how a fund meets redemptions. When a fund receives redemption requests from shareholders, and the fund does not have cash on hand to meet those redemptions,⁶⁹ the fund may sell portfolio assets to generate cash to meet the redemptions and generally has the discretion to determine which assets will be sold.⁷⁰ It is possible that a fund would choose to sell its most liquid assets first. This method of selling is limited to some degree by the investment strategies of the fund, and a fund pursuing this method of meeting redemptions to any significant degree may need to adjust its portfolio so that the fund continues to follow its investment strategies. A fund that chooses to sell its most liquid assets to meet fund redemptions

⁶⁸ See Comment Letter of Investment Company Institute on the Notice Seeking Comment on Asset Management Products and Activities, Docket No. FSOC-2014-0001 ("FSOC Notice") (Mar. 25, 2015) ("ICI FSOC Notice Comment Letter") ("For mutual funds, the central importance of meeting redemptions means that liquidity management is a key element of regulatory compliance, investment risk management, and portfolio management—and a constant area of focus. Even before launching a mutual fund, the fund manager and fund board consider whether the fund's proposed investments and strategies are suitable for the mutual fund structure, including whether it will be able to satisfy applicable regulatory requirements on an ongoing basis. If not, the manager may decide to offer that strategy through a different vehicle (e.g., a closed-end fund or a private fund)."). See also *supra* footnotes 2, 3, and 5-7.

⁶⁹ A fund can have cash on hand to meet redemptions from cash held in the fund's portfolio, cash received from investor purchases of fund shares, interest payments and dividends on portfolio securities, or maturing bonds. See, e.g., Comment Letter of Fidelity Investments on the Notice Seeking Comment on Asset Management Products and Activities, Docket No. FSOC-2014-0001 (Mar. 25, 2015) ("Fidelity FSOC Notice Comment Letter"), at n.17 ("[S]ecurities do not need to be sold every time a redemption order is placed. Sale of fund assets is necessary only when gross redemptions significantly exceed net inflows.").

⁷⁰ A fund may also obtain cash by other available means such as bank lines of credit, but funds infrequently utilize this method to meet redemptions. See Proposing Release, *supra* footnote 9, at n.35 and accompanying text. See also *infra* footnote 262 and accompanying text for a discussion of the use of interfund lending as an alternative source of cash for funds.

may minimize the effect of the redemptions on short-term fund performance for redeeming and remaining shareholders, but may leave remaining shareholders in a potentially less liquid and riskier fund until the fund adjusts the portfolio.⁷¹ An ETF redeeming in kind with its most liquid assets first would similarly leave remaining shareholders in a potentially less liquid and riskier fund. In contrast to meeting redemptions by selling its most liquid assets first, a fund alternatively could choose to meet redemptions by selling, to the best of its ability, a “strip” of the fund’s portfolio (*i.e.*, a cross-section or representative selection of the fund’s portfolio assets).⁷² Funds also could choose to meet redemptions by selling a range of assets in between its most liquid, on one end of the spectrum, and a perfect *pro rata* strip of assets, on the other end of the spectrum. Similarly, an ETF redeeming in kind could use a *pro rata* strip of assets. Additionally, funds could choose to opportunistically pare back or eliminate holdings in a particular asset or sector to meet redemptions.

Second, the effect of redemptions on shareholders is determined by how and when those redemptions affect the price of the fund’s shares. Under rule 22c-1, all investors who redeem from an open-end fund on any particular day must receive the NAV next calculated by the fund after receipt of such redemption request.⁷³ As most funds, with the exception of money market funds, calculate their NAV only once a day, this means that redemption requests received during the day receive the end of day NAV, typically calculated as of 4 p.m. Eastern time.⁷⁴ When

⁷¹ See Proposing Release, *supra* footnote 9, at n.37 and accompanying text.

⁷² There are practical limitations on a fund’s ability to sell a *pro rata* slice of its portfolio, such as minimum trade sizes, transfer restrictions, illiquid assets, tax complications from certain sales, and avoidance of odd lot positions.

⁷³ The process of calculating or “striking” the NAV of the fund’s shares on any given trading day is based on several factors, including the market value of portfolio securities, fund liabilities, and the number of outstanding fund shares, among others.

⁷⁴ Commission rules do not require that a fund calculate its NAV at a specific time of day. Current NAV

calculating a fund's NAV, however, rule 2a-4 requires funds to reflect changes in holdings of portfolio securities and changes in the number of outstanding shares resulting from distributions, redemptions, and repurchases no later than the first business day following the trade date.⁷⁵ We allowed this calculation method to provide funds with additional time and flexibility to incorporate last-minute portfolio transactions into their NAV calculations on the business day following the trade date, rather than on the trade date.⁷⁶ As a practical matter, this calculation method also gave broker-dealers, retirement plan administrators, and other intermediaries additional time to receive transactions submitted before the cut-off time on the trade date, which then may be reflected in the fund's NAV on the business day following the trade date.

Nevertheless, we recognize that trading activity and other changes in portfolio holdings associated with meeting redemptions may occur over multiple business days following the redemption request. If these activities occur (and their associated costs are reflected in NAV) in days following redemption requests, the costs of providing liquidity to redeeming investors could be borne by the remaining investors in the fund, thus potentially diluting the interests of non-redeeming shareholders.⁷⁷ The less liquid the fund's portfolio holdings, the greater these

must be computed at least once daily, subject to limited exceptions, Monday through Friday, at the specific time or times set by the board of directors. *See* rule 22c-1(b)(1).

⁷⁵ Rule 2a-4(a)(2)-(3).

⁷⁶ *See* Adoption of Rule 2a-4 Defining the Term "Current Net Asset Value" in Reference to Redeemable Securities Issued by a Registered Investment Company, Investment Company Act Release No. 4105 (Dec. 22, 1964) [29 FR 19100 (Dec. 30, 1964)].

⁷⁷ The transaction costs associated with redemptions can vary significantly, with some costs having a more immediate impact on shareholders than others. For example, during times of heightened market volatility and wider bid-ask spreads for the fund's underlying holdings, selling the fund's investments to meet redemptions will necessarily result in costs to the fund, which in turn may negatively impact investors who chose to redeem in the days immediately following the stress event. The impact of such costs on the remaining fund investors can vary depending on when a shareholder chooses to redeem. *See, e.g.,* Comment Letter of Mutual Fund Directors Forum on the Notice Seeking Comment on Asset Management Products and Activities, Docket No. FSOC-2014-0001 (Mar. 25, 2015), at 6.

liquidity costs can become.⁷⁸

There can be significant adverse consequences to remaining investors in a fund that does not adequately manage liquidity.⁷⁹ As noted above, the proportion of illiquid assets held by a fund can increase if the fund sells its more liquid portfolio assets to meet redemptions. This in turn could adversely affect the fund's risk profile and cause the fund to have difficulty meeting future shareholder redemptions.⁸⁰ For example, during the pendency of our proposal, the Third Avenue Focused Credit Fund, a non-diversified open-end fund, adopted a plan of liquidation, and requested and obtained exemptive relief to suspend shareholder redemptions.⁸¹ The Commission noted that the fund represented that, at the time the fund and its investment adviser requested exemptive relief, it had experienced a significant level of redemption requests over the prior six-month period that reduced the fund's portfolio liquidity, as well as a significant decline

⁷⁸ See, e.g., Comment Letter of Morningstar, Inc. (Jan. 13, 2016) ("Morningstar Comment Letter"). See also Proposing Release, *supra* footnote 9, at n.45 and accompanying text.

⁷⁹ See, e.g., Jason Greene & Charles Hodges, *The Dilution Impact of Daily Fund Flows on Open-end Mutual Funds*, 65 J. OF FIN. ECON. 131 (2002) ("Greene & Hodges") ("Active trading of open-end funds has a meaningful economic impact on the returns of passive, nontrading shareholders, particularly in U.S.-based international funds. The overall sample of domestic equity funds shows no dilution impact, but we find an annualized negative impact of 0.48% in international funds (and nearly 1% for a subsample of funds whose daily flows are particularly large).").

⁸⁰ See, e.g., In re Heartland Advisors, Inc., *et al.*, Investment Company Act Release No. 28136 (Jan. 25, 2008) ("Heartland Release") (settled order) (finding that certain high-yield bond funds experienced liquidity problems (caused in part by adviser's unwillingness to sell bond holdings at prices below which the funds had valued them) and, as a result, the funds borrowed heavily against a line of credit to meet fund redemption requests, and investors redeemed fund shares at prices that benefited redeeming shareholders at the expense of remaining and new investors).

⁸¹ See Third Avenue Temporary Order, *supra* footnote 12. But see *infra* footnote 209 and accompanying text. We note that there is no assurance that the Commission would grant similar relief in the future. See also ICI Comment Letter I ("Third Avenue Focused Credit Fund experienced a significant level of redemption requests and an ongoing reduction in the liquidity of its portfolio securities, which consisted largely of junk bonds...The SEC granted a temporary order under section 22(e)(3) after expressing concerns with a board-approved plan of liquidation that provided for distribution to shareholders of the fund's remaining net cash and a separate transfer of the fund's other assets into a liquidating trust."); BlackRock Comment Letter ("[A]s recently demonstrated by the issues meeting redemption requests that were experienced by the Third Avenue Focused Credit Fund, a small and highly concentrated portfolio can present its own liquidity challenges."); see also *infra* footnote 84.

in its NAV.⁸² The fund’s board authorized the plan of liquidation after it determined that additional redemptions would have to be made at prices that would unfairly disadvantage the fund’s remaining shareholders.⁸³ This event highlights the extent to which shareholders can be harmed when a fund holding portfolio assets that entail significant liquidity risk does not adequately anticipate the effects of market deterioration and increased shareholder redemptions.⁸⁴ Furthermore, if a fund finds that it can sell portfolio assets only at prices that incorporate a significant discount to the assets’ stated value, the discounted sale prices can materially affect the fund’s NAV.

These factors in fund redemptions—either individually or in combination—can create incentives in times of liquidity stress in the markets for shareholders to redeem quickly to avoid further losses (or a “first-mover advantage”).⁸⁵ If shareholder redemptions are motivated by this

⁸² Third Avenue Temporary Order, *supra* footnote 12. At the time that the fund adopted its plan of liquidation, the fund had experienced \$1.1 billion in estimated net outflows for the year to date through December 9, 2015, which was more than 145% of the fund’s total net assets as of that date. Furthermore, in November 2015, the fund experienced a total of \$317 million in estimated net redemptions and the fund’s retail class NAV per share fell from \$7.82 to \$7.09.

⁸³ *Id.* See also Third Avenue Management, Press Release: Third Avenue Management Obtains Exemptive Relief for Focused Credit Fund (Dec. 16, 2015), available at: <http://thirdave.com/news/press-release-third-avenue-management-obtains-exemptive-relief-for-focused-credit-fund/> (“As a result of the [SEC] exemptive order, redemptions are suspended for all shareholders, and... the [fund’s adviser] will be able to conduct an orderly liquidation without having to resort to forced selling of securities at reduced or disadvantaged prices.”).

⁸⁴ See Comment Letter of Americans for Financial Reform (Jan. 13, 2016) (“AFR Comment Letter”) (“By all accounts, Third Avenue was holding the great majority of its assets in illiquid distressed debt and had very limited cash reserves, a strategy that can increase returns but at the price of greatly increased risks for investors... While the Third Avenue fund may be an outlier in terms of the sheer volume of illiquid assets it holds, evidence also indicates that larger and more significant funds are also testing the bounds of previous SEC guidance on liquidity, and are holding a large fraction of potentially illiquid assets. If such funds come under selling pressure, the need to dispose of such assets could add to market stress in ways that have a negative impact on corporate credit and the real economy, as well as potentially harming investors.”); see also Heartland Release, *supra* footnote 80.

⁸⁵ See *infra* footnotes 1086-1088 and accompanying text for a discussion of the first-mover advantage and its negative consequences. But see Comment Letter of Nuveen Investments on the Notice Seeking Comment on Asset Management Products and Activities, Docket No. FSOC-2014-0001 (Mar. 25, 2015) (“Nuveen FSOC Notice Comment Letter”), at 10 (stating that there is no evidence that shareholders are actually motivated by a first-mover advantage); Comment Letter of BlackRock on the Notice Seeking Comment on

first-mover advantage, they can lead to increasing outflows, and as the level of outflows from a fund increases, the incentive for remaining shareholders to redeem may also increase.

Additionally, a fund experiencing large outflows as a result of redemptions may be exposed to predatory trading activity in the securities it holds.⁸⁶ Regardless of whether investor redemptions are motivated by a first-mover advantage or other factors, there can be significant adverse consequences to remaining investors in a fund when it fails to adequately manage liquidity.⁸⁷

This underlines the importance of fund liquidity management for advancing investor protection by reducing the risk that a fund would be unable to meet redemption obligations without significant dilution of remaining investors' interests in the fund.

Asset Management Products and Activities, Docket No. FSOC-2014-0001 (Mar. 25, 2015) (“BlackRock FSOC Notice Comment Letter”), at 17 (stating that although incentives to redeem may exist, this does not necessarily imply that investors will in fact redeem *en masse* in times of market stress, but also noting that a well-structured fund “should seek to avoid features that could create a ‘first-mover advantage’ in which one investor has an incentive to leave” before others); Comment Letter of Association of Institutional Investors on the Notice Seeking Comment on Asset Management Products and Activities, Docket No. FSOC-2014-0001 (Mar. 25, 2015), at 10-11 (“The empirical evidence of historical redemption activity, even during times of market stress, supports the view that either (i) there are not ‘incentives to redeem’ that are sufficient to overcome the asset owner’s asset allocation decision or (ii) that there are disincentives, such as not triggering a taxable event, that outweigh the hypothesized ‘incentives to redeem.’”); Comment Letter of The Capital Group Companies on the Notice Seeking Comment on Asset Management Products and Activities, Docket No. FSOC-2014-0001 (Mar. 25, 2015), at 8 (“We also do not believe that the mutualization of fund trading costs creates any first mover advantage.”); ICI FSOC Notice Comment Letter, *supra* footnote 68, at 7 (“Investor behavior provides evidence that any mutualized trading costs must not be sufficiently large to drive investor flows. We consistently observe that investor outflows are modest and investors continue to purchase shares in most funds even during periods of market stress.”). *See also* discussion of the potential first-mover advantage in the Proposing Release, *supra* footnote 9, at n.49.

⁸⁶ *See, e.g.*, Joshua Coval & Erik Stafford, *Asset Fire Sales (and Purchases) in Equity Markets*, 86 J. FIN. ECON. 479 (2007) (“Coval & Stafford”) (“Funds experiencing large outflows tend to decrease existing positions, which creates price pressure in the securities held in common by distressed funds. Similarly, the tendency among funds experiencing large inflows to expand existing positions creates positive price pressure in overlapping holdings. Investors who trade against constrained mutual funds earn significant returns for providing liquidity. In addition, future flow-driven transactions are predictable, creating an incentive to front-run the anticipated forced trades by funds experiencing extreme capital flows.”); Teodor Dyakov & Marno Verbeek, *Front-Running of Mutual Fund Fire-Sales*, 37 J. OF BANK. AND FIN. 4931 (2013) (“Dyakov & Verbeek”) (“We show that a real-time trading strategy which front-runs the anticipated forced sales by mutual funds experiencing extreme capital outflows generates an alpha of 0.5% per month during the 1990–2010 period . . . Our results suggest that publicly available information of fund flows and holdings exposes mutual funds in distress to predatory trading.”). *See* discussion of predatory trading concerns in the Proposing Release, *supra* footnote 9, at nn.805-809 and accompanying text.

⁸⁷ *See* Proposing Release, *supra* footnote 9, at n.37.

There also is a potential for adverse effects on the markets when open-end funds fail to adequately manage liquidity.⁸⁸ For example, if liquid asset levels are insufficient to meet redemptions, funds may sell less-liquid portfolio assets at discounted or even fire sale prices. These sales can produce significant negative price pressure on those assets and correlated assets. Accordingly, redemptions and funds' liquidity risk management can affect not just the remaining investors in the fund, but any other investors holding these assets. Depending on the asset and the level of stress, such liquidity stress on the assets held in the fund has the potential to transmit stress to other funds or portions of the market as well.⁸⁹

C. Recent Developments in the Open-End Fund Industry

Recent industry developments have underlined our focus on the importance of sufficient liquidity and liquidity risk management practices in open-end funds.⁹⁰ These developments include significant growth in assets of, and shareholder inflows into, open-end funds with fixed income strategies and alternative strategies since 2008 and the evolution of settlement periods and redemption practices utilized by open-end funds. We will discuss each of these developments in turn.

1. Fixed Income Funds and Alternative Funds

We have observed significant growth in cash flows into, and assets of, fixed income

⁸⁸ See, e.g., See Comment Letter of Americans for Financial Reform on the FSOC Notice (Mar. 27, 2015) ("AFR FSOC Notice Comment Letter") (citing evidence that "bond fire sales by mutual funds during the financial crisis created direct economic harm to real economy companies, reducing investment and profitability over a period of years."); Fidelity FSOC Notice Comment Letter, *supra* footnote 69, at 18 ("Managing liquidity levels to fulfill [a fund adviser's] fiduciary obligations benefits [redeeming and remaining] shareholders as well as the broader financial markets.").

⁸⁹ See Proposing Release, *supra* footnote 9, at n.54.

⁹⁰ We note that, up until 1970, open-end funds had limited investments in the bond market. See Protecting Investors: A Half Century of Investment Regulation (May 1992) for a discussion of the regulatory and market developments that occurred between 1940 and 1992.

mutual funds and fixed income ETFs (excluding ETMFs).⁹¹ As growth in fixed income fund assets was occurring, we increased our focus on fixed income market structure, publishing a report on the municipal securities markets in 2012 and holding a roundtable focused on the fixed income markets in 2013.⁹² In addition, Commissioners and Commission staff have spoken about the need to focus on potential risks relating to the fixed income markets and their underlying liquidity.⁹³ Commission staff also has focused on the nature of liquidity risk management in fixed income funds, including by selecting fixed income funds as an examination priority in 2014, 2015, and 2016.⁹⁴

⁹¹ Assets in these funds grew from \$1.5 trillion at the end of 2008 to \$3.6 trillion at the end of 2015, with net inflows exceeding \$1.4 trillion during that period. These figures were obtained from staff analysis of Morningstar Direct data, and are based on fund categories defined by Morningstar. While mutual funds holding U.S. equities continue to make up the largest category of funds in terms of fund assets, their share of the total industry assets has declined from 65.2% in 2000 to 44.7% in 2015. DERA Study, *infra* footnote 95, at Table 2. The statistics in the DERA Study were calculated through the end of 2014. Commission staff used the CRSP US Mutual Fund Database to update them as of the end of 2015.

⁹² See Securities and Exchange Commission, Transcript: Roundtable on Fixed Income Markets (Apr. 16, 2013), available at <https://www.sec.gov/spotlight/fixed-income-markets/2013-04-16-fixed-income-markets-transcript.txt> (discussing, among other topics, liquidity characteristics and risks in the municipal bond and corporate bond markets); Securities and Exchange Commission, Report on the Municipal Securities Market (July 31, 2012), available at <https://www.sec.gov/news/studies/2012/munireport073112.pdf> (discussing, among other topics, the low liquidity, opacity and fragmentation of the municipal securities market).

⁹³ See Proposing Release, *supra* footnote 9, at n.62.

⁹⁴ See, e.g., IM Guidance Update No. 2014-01, Risk Management in Changing Fixed Income Market Conditions (Jan. 2014) (“2014 Fixed Income Guidance Update”), available at <https://www.sec.gov/divisions/investment/guidance/im-guidance-2014-1.pdf>; National Exam Program, Office of Compliance Inspections and Examinations, Examination Priorities for 2016 (2016), available at <https://www.sec.gov/about/offices/ocie/national-examination-program-priorities-2016.pdf> (“Amidst the changes in fixed income markets over the past several years, we will examine advisers to mutual funds, ETFs, and private funds that have exposure to potentially illiquid fixed income securities. We will also examine registered broker-dealers that have become new or expanding liquidity providers in the marketplace. These examinations will include a review of various controls in these firms’ expanded business areas, such as controls over market risk management, valuation, liquidity management, trading activity, and regulatory capital”); National Exam Program, Office of Compliance Inspections and Examinations, Examination Priorities for 2015 (2015) (“National Exam Program 2015 Examination Priorities”), available at <http://www.sec.gov/about/offices/ocie/national-examination-program-priorities-2015.pdf> (“With interest rates expected to rise at some point in the future, we will review whether mutual funds with significant exposure to interest rate increases have implemented compliance policies and procedures and investment and trading controls sufficient to ensure that their funds’ disclosures are not misleading and that their investments and liquidity profiles are consistent with those disclosures.”);

We also have observed significant growth in alternative mutual funds over the last decade.⁹⁵ Although the assets of open-end funds pursuing alternative strategies accounted for a relatively small percentage of the mutual fund market as of December 2014, the growth of assets in these funds has been substantial. Assets of open-end funds with alternative strategies grew from approximately \$365 million at the end of 2005 to approximately \$334 billion at the end of 2014.⁹⁶

Unlike alternative mutual funds and ETFs, private funds (such as hedge funds and private equity funds) and closed-end funds pursuing similar alternative strategies can invest in portfolio assets that are relatively illiquid without generating the same degree of redemption risk for the fund because investor redemption rights are often limited.⁹⁷ In addition, investor expectations of private funds' redemption rights differ from the redemption expectations of typical retail investors in open-end funds.⁹⁸ For example, investors in private equity funds typically commit

National Exam Program, Office of Compliance Inspections and Examinations, Examination Priorities for 2014 (2014), available at <http://www.sec.gov/about/offices/ocie/national-examination-program-priorities-2014.pdf> (“The staff will monitor the risks associated with a changing interest rate environment and the impact this may have on bond funds and related disclosures of risks to investors.”).

⁹⁵ Paul Hanouna, Jon Novak, Tim Riley & Christof Stahel, *Liquidity and Flows of U.S. Mutual Funds*, Division of Economic and Risk Analysis White Paper (Sept. 2015) (“DERA Study”), at 7-8, available at <https://www.sec.gov/dera/staff-papers/white-papers/liquidity-white-paper-09-2015.pdf>. While there is no clear definition of “alternative” in the mutual fund space, an alternative mutual fund is generally understood to be a fund whose primary investment strategy falls into one or more of the three following buckets: (i) non-traditional asset classes (for example, currencies or managed futures funds); (ii) non-traditional strategies (such as long/short equity, event driven); and/or (iii) less liquid assets (such as private debt). Their investment strategies often seek to produce positive risk-adjusted returns that are not closely correlated to traditional investments or benchmarks, in contrast to traditional mutual funds that historically have pursued long-only strategies in traditional asset classes.

⁹⁶ See Proposing Release, *supra* footnote 9 at nn.64-66 and accompanying text. See also *id.*

⁹⁷ A private fund is an issuer that would be an investment company, as defined in section 3 of the Investment Company Act, but for the exclusion from the definition of “investment company” in section 3(c)(1) or 3(c)(7) of the Act. Section 202(a)(29) of the Advisers Act.

⁹⁸ Hedge Funds often contain “lock-up” provisions and impose gates, suspensions of redemptions, and side pockets to manage liquidity stress. See Proposing Release, *supra* footnote 9, at n.69 and accompanying text.

their capital for the life of the fund.⁹⁹

In contrast, alternative strategy mutual funds and ETFs have no such ability to tailor investor redemption rights based on the liquidity profile of the funds' portfolios. Yet some of these funds seek to pursue similar investment strategies as hedge funds and other private funds, while still being bound by the redemption obligations applicable to open-end funds. Accordingly, our staff has been focused on the liquidity of alternative strategy mutual funds and ETFs (excluding ETMFs), as well as the nature of liquidity and redemption risks faced by investors in these funds given their legal right to be paid the proceeds of any redemption request within seven days and a fund's representations about payment in less than seven days.¹⁰⁰ Certain observations by the Commission's Division of Economic and Risk Analysis ("DERA") have lent further support to our focus on liquidity risk management practices in this industry segment, as DERA's analysis has shown that alternative strategy mutual funds demonstrate cash flows that are significantly more volatile than other strategies, indicating that these funds may face higher levels of redemptions, and thus higher liquidity risk.¹⁰¹ Volatility in flows places additional importance on liquidity risk management to prevent some of the consequences from a failure to adequately manage liquidity discussed in section II.B.2 above. The final rules and rule amendments build off of many of the observations we and our staff have made through efforts examining the growth in funds and ETFs with fixed income strategies and alternative strategies.

2. *Evolution of Settlement Periods and Redemption Practices*

Practices relating to securities trade settlement periods and the timing of the payment of

⁹⁹ See Comment Letter of the Private Equity Growth Capital Council on the Notice Seeking Comment on Asset Management Products and Activities, Docket No. FSOC-2014-0001 (Mar. 25, 2015).

¹⁰⁰ See Proposing Release, *supra* footnote 9, at n.72.

¹⁰¹ See DERA Study, *supra* footnote 95.

redemption proceeds to investors also have evolved considerably over the decades since the Commission last addressed liquidity needs in open-end funds.¹⁰² Due to the adoption of rule 15c6-1 under the Exchange Act in 1993, the standard settlement time frame declined from five business days (T+5) to three business days (T+3).¹⁰³ Furthermore, while standard settlement periods for securities trades in many markets have tended to fall significantly over the last several decades—and investor expectations that redemption proceeds will be paid promptly after redemption requests have risen—settlement periods for other securities held in large amounts by certain funds have not fallen correspondingly. For example, some bank loan funds do not consider most of their portfolio holdings to be illiquid and generally represent in their disclosures that they comply with the Commission’s current guidelines,¹⁰⁴ even though the settlement periods associated with some bank loans and participations may extend beyond the period of time the fund would be required to meet shareholder redemptions. This creates a potential mismatch between the timing of the receipt of cash upon sale of these assets and the payment of cash for shareholder redemptions.¹⁰⁵

Overall, the evolution of the market towards shorter settlement periods – and corresponding fund disclosures – combined with open-end funds holding certain securities with longer settlement periods have raised concerns for us about whether fund portfolios are sufficiently liquid to support a fund’s ability to meet its redemption and other legal obligations.

¹⁰² See *supra* footnotes 7-9 and accompanying text.

¹⁰³ The decline in the securities trading settlement period from T+5 to T+3 prompted funds that were sold through broker-dealers to satisfy redemption requests within three business days. See *supra* footnote 32.

¹⁰⁴ See *supra* section II.B.3.

¹⁰⁵ See discussion of this timing mismatch of the Proposing Release, *supra* footnote 9, at n.79 and accompanying text.

D. Overview of Current Practices

Over the last several years, Commission staff has observed through a variety of different events the current liquidity risk management practices at a cross-section of fund complexes with varied investment strategies. The staff has observed that liquidity risk management techniques may vary across funds, including funds within the same fund complex, in light of unique fund characteristics, including, for example, the nature of a fund’s investment objectives or strategies, the composition of the fund’s investor base, and historical fund flows. These observations collectively have shown the staff that, even with various unique characteristics, many open-end funds and fund complexes have implemented procedures for assessing and managing the liquidity of their portfolio assets.¹⁰⁶

Specifically, some of the funds observed by the staff assess their ability to sell particular assets within various time periods (typically focusing on one-, three-, and/or seven-day periods).¹⁰⁷ In conducting this analysis, these funds may take into account relevant market, trading, and other factors, and monitor whether their initial liquidity determination should be changed based on changed market conditions. This process helps these funds determine their ability to meet redemption requests without significant dilution in various market conditions within the disclosed period for payment of redemption proceeds.

Funds observed by the staff that have implemented procedures for assessing the liquidity of their portfolio assets also often have developed controls to manage fund portfolio liquidity risk

¹⁰⁶ There are varying degrees of formality in the adoption and implementation of these procedures. Several commenters also discussed existing liquidity risk management practices. *See, e.g.*, Blackrock Comment Letter; ICI Comment Letter I; Comment Letter of Vanguard (Jan. 6, 2016) (“Vanguard Comment Letter”).

¹⁰⁷ *See* 2014 Fixed Income Guidance Update, *supra* footnote 94 (noting that fund advisers “generally assess overall fund liquidity and funds’ ability to meet potential redemptions over a number of periods” and discussing certain steps that fund advisers may consider taking given potential fixed income market volatility); *see also* Proposing Release, *supra* footnote 9, at n.151 and accompanying text.

and the risk of changing levels of shareholder redemptions, such as holding certain amounts of the fund's portfolio in highly liquid investments, setting minimum cash reserves, and establishing committed back-up lines of credit or interfund lending facilities.¹⁰⁸ A few of the funds observed by staff conduct stress testing relating to the availability of liquid assets to cover possible levels of redemptions.¹⁰⁹ Some of these funds' advisers also have periodic discussions with their boards of directors about how the funds approach liquidity risk management and what emerging risks they are observing relating to liquidity risk. The staff has observed that some of the funds with the more thorough liquidity risk management practices have appeared to be able to better meet periods of higher than typical redemptions without significantly altering their risk profile or materially affecting their performance, and thus with less dilutive impacts.

Conversely, the Commission is concerned that some funds employ liquidity risk management practices that are substantially less rigorous. Some funds observed by the staff do not take different market conditions into account when evaluating portfolio asset liquidity, and do not conduct any ongoing liquidity monitoring. Some funds do not incorporate any independent oversight of fund liquidity risk management outside of the portfolio management process.¹¹⁰ Staff has observed that some of these funds, when faced with higher than normal redemptions, experienced particularly poor performance compared with their benchmark and some even experienced an adverse change in the fund's risk profile, each of which can increase the risk of investor dilution as well as the risk that the fund will be unable to meet those redemptions.

¹⁰⁸ See Proposing Release, *supra* footnote 9, at n.100 and accompanying text.

¹⁰⁹ See Proposing Release, *supra* footnote 9, at n.101.

¹¹⁰ See Proposing Release, *supra* footnote 9, at n.102.

Finally, the Commission learned through staff outreach that many funds treat their risk management process for assessing the liquidity profile of portfolio assets, and the incorporation of market and trading information, as entirely separate from their assessment of assets under the 15% guideline. The former process is typically conducted on an ongoing basis through the fund's risk management function, through the fund's portfolio management function, or through the fund's trading function (or a combination of the foregoing), while assessment of assets under the 15% guideline is more typically conducted upon purchase of an asset through the fund's compliance or "back-office" functions, with little indication that information generated from the risk management or trading functions informs the compliance determinations. This functional divide may be a by-product of the limitations of the 15% guideline as a stand-alone method for comprehensive liquidity risk management, a situation that our final liquidity risk management program framework is meant to address.¹¹¹

Overall, our staff outreach has increased our understanding of some of the valuable liquidity risk management practices employed by some firms as a matter of prudent risk management. This outreach also has shown us the great diversity in liquidity risk management practices that raises concerns regarding various funds' ability to meet their redemption and other legal obligations and minimize the effects of dilution under certain conditions. Collectively, these observations have informed our understanding of the need for an enhanced minimum baseline requirement for fund management of liquidity risk.

E. Rulemaking Adoption Overview

Against this background, today we are adopting a set of reforms designed to promote effective liquidity risk management throughout the open-end fund industry and thereby reduce

¹¹¹ See *supra* section II.B.2 for a discussion of the limitations of the 15% guideline.

the risk that funds will not be able to meet redemption or other legal obligations and mitigate potential dilution of the interests of fund shareholders. We believe that limitations on illiquid holdings and more effective liquidity risk management among funds would, in turn, result in significant investor protection benefits and enhance the fair and orderly operation of the markets.¹¹² The final amendments also seek to enhance reporting and disclosure regarding fund liquidity and redemption practices.

First, we are adopting new rule 22e-4, which requires each registered open-end fund, including open-end ETFs but not including money market funds, to adopt and implement a written liquidity risk management program reasonably designed to assess and manage the fund's liquidity risk.¹¹³ The new rule requires a fund's liquidity risk management program to incorporate certain specified elements. These include: (i) assessment, management, and periodic review of the fund's liquidity risk; (ii) classification of the liquidity of each of the fund's portfolio investments,¹¹⁴ as well as at-least-monthly reviews of the fund's liquidity classifications; (iii) determining and periodically reviewing a highly liquid investment minimum—the percentage of its net assets that the fund invests in highly liquid investments that are assets; (iv) limiting the fund's investment in illiquid investments that are assets to no more than 15% of the fund's net assets; and (v) for funds that engage in, or reserve the right to engage

¹¹² See *infra* section IV.C.

¹¹³ See rule 22e-4(b). Rule 22e-4, as adopted today, defines “liquidity risk” as the risk that a fund could not meet requests to redeem shares issued by the fund without significant dilution of remaining investors' interests in the fund.

¹¹⁴ As discussed in more detail below, rule 22e-4 as adopted requires a fund to classify each of the fund's portfolio *investments*, including investments that are liabilities of the fund (*e.g.*, certain out-of-the-money derivatives transactions). See *infra* footnote 480 and accompanying text. As proposed rule 22e-4 would have required each fund to classify the liquidity of its portfolio positions (or portions of a position in a particular asset), but did not specifically address the treatment of a fund's holdings that are liabilities. Thus, in this Release, we use the term “assets” when referring to the proposed classification requirement and comments on the proposed requirement, and the term “investments” when referring to the adopted classification requirement.

in, redemptions in kind, the establishment of policies and procedures regarding how they will engage in such redemptions in kind.

The liquidity risk assessment requirement generally provides a broad, principles-based foundational framework for a fund's liquidity risk management program, including a requirement that the fund assess whether its investment strategy is appropriate for an open-end fund. The final rule also provides for a tailored program for ETFs, requiring them to consider additional factors as part of their liquidity risk assessment and management that reflect potential liquidity-related concerns that could arise from the structure and operation of ETFs, and excepting ETFs that redeem in kind ("In-Kind ETFs") from the classification and highly liquid investment minimum requirements.¹¹⁵ The final rule also provides that funds whose assets primarily consist of highly liquid investments need not adopt a highly liquid investment minimum.¹¹⁶ Additionally, rule 22e-4 will not apply to closed-end funds, and will apply to principal underwriters and depositors of UITs only to a limited degree, as discussed further below. The classification requirement will provide important liquidity profile information to the Commission and investors and reflects that liquidity may be viewed as falling on a spectrum rather than a binary conclusion that an investment is either "liquid" or "illiquid."¹¹⁷ The highly

¹¹⁵ Under the final rule, each "In-Kind ETF," or an ETF that meets redemptions through in-kind transfers of securities, positions, and assets other than a *de minimis* amount of cash, will be subject to the tailored program requirement. See rule 22e-4(a)(9) (definition of "In-Kind Exchange Traded Fund" or "In-Kind ETF"); rule 22e-4(b)(1)(i)(D) (incorporating additional factors that an ETF would be required to consider as applicable as part of its liquidity risk assessment and management that reflect liquidity-related risks that could be particularly relevant to the ETF). Under rule 22e-4(a)(5), the term "fund" is defined to exclude an In-Kind ETF. As a result, rule 22e-4(b)(1)(ii) and rule 22e-4(b)(1)(iii), which apply to funds as defined in rule 22e-4(a)(5), exclude In-Kind ETFs from the classification and highly liquid investment minimum requirements, respectively.

¹¹⁶ See rule 22e-4(b)(1)(iii) (applying the highly liquid investment minimum requirement only to a fund that does not primarily hold assets that are highly liquid investments).

¹¹⁷ The Commission is adopting a classification framework consisting of four liquidity categories based on the number of days within which it is determined that the investment is reasonably expected to be convertible to cash (or, in the case of the least-liquid categories, sold or disposed of) without the conversion (or, in the

liquid investment minimum requirement is aimed at decreasing the likelihood that funds would be unable to meet their redemption obligations.

Rule 22e-4 includes board oversight provisions related to the liquidity risk management program. Specifically, a fund's board will approve, but not design, the fund's liquidity risk management program, as well as the fund's designation of the fund's investment adviser or officers as responsible for administering the day-to-day aspects of the fund's liquidity risk management program.¹¹⁸ A fund also will be subject to board reporting requirements to the extent that its investments in assets that are highly liquid investments fall below its minimum or its assets that are illiquid investments rise above 15% of its net assets.¹¹⁹ We anticipate that the new program requirement will result in investor protection benefits, as improved liquidity risk management could decrease the chance that a fund could meet its redemption obligations only with significant dilution of remaining investors' interests or changes to the fund's risk profile.

Rule 22e-4, by requiring funds to limit illiquidity and manage liquidity, should reduce the potential likelihood and extent of dilution of non-transacting shareholders that otherwise could result from redemptions effected at prices determined in accordance with rules 22c-1 and 2a-4. Thus, rule 22e-4, although it is numbered with reference to section 22(e), has a broader scope and also should separately help rule 22c-1 operate so as to reduce dilution, as contemplated by

case of the least-liquid categories, sale or disposition) significantly changing the market value of the investment. More specifically, as discussed below, rule 22e-4 would require a fund to classify each of its portfolio investments into one of the following liquidity categories: *highly liquid* investments (category based on fund's reasonable expectation that an investment can be converted to cash within three business days); *moderately liquid* investments (category based on fund's reasonable expectation that an investment can be converted to cash within four to seven calendar days); *less liquid* investments (category based on fund's reasonable expectation that an investment can be sold or disposed of in seven calendar days but the settlement is reasonably expected to be greater than seven calendar days); and *illiquid* investments (category based on fund's reasonable expectation that an investment cannot be sold or disposed of within seven calendar days).

¹¹⁸ Rule 22e-4(b)(2).

¹¹⁹ Rule 22e-4(b)(1)(iii)(A)(3) and rule 22e-4(b)(1)(iv).

sections 22(a) and (c).

Second, we are adopting certain public disclosure- and confidential reporting-related rules and amendments to provide shareholders and other users with additional information with respect to funds' liquidity risk profile as well as assist the Commission in its monitoring efforts. Specifically, we are adopting reporting requirements on Form N-PORT that will require a fund to report monthly position-level liquidity classification information and its highly liquid investment minimum to the Commission on a confidential basis.¹²⁰ Form N-PORT will also require a fund to publicly disclose the aggregated percentage of its portfolio representing each of the four classification categories adopted by the Commission as of the end of each of its fiscal quarters.¹²¹

We are adopting new rule 30b1-10 and Form N-LIQUID to require a fund to confidentially notify the Commission when the fund's illiquid investment holdings exceed 15% of its net assets or if its amount of highly liquid investments declines below its highly liquid investment minimum for more than a brief period of time. We also are adopting amendments to Form N-1A to require a fund to publicly disclose certain information regarding the fund's redemption procedures. Finally, we are adopting requirements for funds to provide information on Form N-CEN about funds' use of lines of credit and interfund lending.

We anticipate that these new requirements will facilitate the Commission's risk and

¹²⁰ We are adopting Form N-PORT today in a companion release. See Investment Company Reporting Modernization, Investment Company Act Release No. 32314 (October 13, 2016) ("Investment Company Reporting Modernization Adopting Release") We discuss the Form N-PORT reporting requirements related to rule 22e-4 in this Release, including the requirements that a fund report: (i) the liquidity classification assigned to each portfolio position (which may be based on asset type to the extent discussed below); (ii) the asset type label that the fund has assigned to each portfolio position, using any asset type labeling scheme the fund employs in its own portfolio management systems; and (iii) the fund's highly liquid investment minimum.

¹²¹ This information will be reported monthly on Form N-PORT, but it will be disclosed to the public only for the third month of each fiscal quarter with a 60-day delay.

compliance monitoring efforts by providing greater transparency regarding the liquidity characteristics of fund portfolio holdings, as well as its ability to monitor and assess compliance with rule 22e-4. While Form N-PORT and Form N-CEN are primarily designed to assist the Commission, we believe that the requirements to publicly disclose certain information will also help investors and other potential users utilize information on particular funds' liquidity-related risks and redemption policies, which in turn may assist investors in making more informed investment choices.¹²² As further discussed below, we believe that these reporting requirements strike the right balance between protecting the funds from certain adverse effects that could arise from public disclosure of detailed portfolio liquidity information with the need to provide shareholders and other users with improved information about funds' liquidity risk profile.

III. DISCUSSION

A. Program Requirement and Scope of Rule 22e-4

Today the Commission is adopting rule 22e-4 under the Investment Company Act. This rule will require each registered open-end management investment company, including open-end ETFs but not including money market funds, to establish a written liquidity risk management program. Rule 22e-4 will not apply to closed-end funds, and will apply to UITs only to a limited degree, as discussed further below.

1. *Liquidity Risk Management Program*

Rule 22e-4 generally will require each registered open-end management investment

¹²² See, e.g., Comment Letter of Markit on the Notice Seeking Comment on Asset Management Products and Activities, Docket No. FSOC-2014-0001 (Mar. 25, 2015) (“[W]e believe that liquidity and redemption risk contained in asset management products can be mitigated by providing risk managers or investors of pooled investment vehicles better information about the liquidity risk associated with pool investments so that they can price it more accurately. This could be done through, among other things, disclosures of the ‘prudent valuation’ (accounting for pricing uncertainty) of the fund’s investments and the implementation of appropriate liquidity risk management policies and procedures.”).

company to establish a written liquidity risk management program. The majority of commenters generally supported the proposed requirement for each fund to adopt a formal, written liquidity risk management program,¹²³ although many commenters objected to certain aspects of the proposal and suggested modifications to certain proposed program elements, as discussed in more detail below. Other commenters opposed the proposed written program requirement, asserting that funds have a history of successfully managing their liquidity and that the proposed requirement was thus unnecessary.¹²⁴ We continue to believe, as discussed in the Proposing Release, that the program requirement will produce significant investor protection benefits, in light of the fact that funds are not currently subject to specific requirements under the federal securities laws or Commission rules obliging them to manage their liquidity risk. Outreach by Commission staff has identified practices at some funds that raise concerns regarding funds' ability to meet their redemption obligations and lessen the effects of dilution.¹²⁵ The Commission is thus adopting, as proposed, a requirement for each fund to adopt and implement a written liquidity risk management program.¹²⁶ However, we note that the program requirement

¹²³ See, e.g., Comment Letter of Alternative Investment Management Association (Jan. 13, 2016) ("AIMA Comment Letter"); Comment Letter of Capital Research and Management Company (Jan. 13, 2016) ("CRMC Comment Letter"); Comment Letter of Cohen & Steers (Jan. 13, 2016) ("Cohen & Steers Comment Letter"); Comment Letter of Dechert LLP (Jan. 13, 2016) ("Dechert Comment Letter"); Comment Letter of Fidelity Management & Research Company (Jan. 13, 2016) ("Fidelity Comment Letter"); Comment Letter of Association of the Bar of the City of New York (Jan. 13, 2016) ("NYC Bar Comment Letter"); Comment Letter of Securities Industry and Financial Markets Association (Jan. 13, 2016) (Comments on Proposal to Require Liquidity Risk Management Programs and Related Liquidity Disclosures) ("SIFMA Comment Letter I"); Comment Letter of T. Rowe Price (Jan. 13, 2016) ("T. Rowe Comment Letter").

¹²⁴ See Comment Letter of Cove Street Capital (Oct. 8, 2015) ("Cove Street Comment Letter"); Comment Letter of Jim H. Francis (Nov. 4, 2015); Comment Letter of Jordana Keefer (Jan. 7, 2016) ("Keefer Comment Letter"); Comment Letter of Don G. Powell (Oct. 5, 2015); Comment Letter of John Wahh (Oct. 1, 2015) ("Wahh Comment Letter").

¹²⁵ See Proposing Release, *supra* footnote 9, at section IV.C.1.b.

¹²⁶ See rule 22e-4(b).

we are adopting incorporates modifications to most of the proposed program elements.¹²⁷

A fund may, as it determines appropriate, expand its liquidity risk management procedures and related disclosure concerning liquidity risk beyond the required program elements.¹²⁸ While a fund would be required to adhere to certain requirements—such as the requirement to classify the liquidity of a fund’s portfolio investments and determine a highly liquid investment minimum¹²⁹—in other respects, the proposed program requirements would permit each fund to tailor its liquidity risk management program to the fund’s particular risks and circumstances. Commenters stressed that many funds are currently engaged in operational practices that are designed to support fund liquidity and the redeemability of fund shares.¹³⁰ Commenters also noted that funds’ approaches to liquidity risk management should, and currently do, differ markedly depending on their individual risks.¹³¹ We believe that the program requirement will permit funds that already have programs that satisfy the rule requirements to continue to engage in the liquidity risk management practices that they have found to be effective. However, the program requirement’s common obligations should strengthen liquidity risk management across the fund industry, while also providing important transparency into funds’ liquidity profiles and risk management practices.

2. *Scope of Rule 22e-4 and Related Disclosure and Reporting Requirements*

¹²⁷ As discussed throughout this Release, we believe that these modifications respond appropriately to specific concerns noted by commenters and help to increase the effectiveness of the program requirement in advancing the Commission’s goals, while at the same time reducing associated burdens.

¹²⁸ See *supra* footnotes 113-115 and accompanying text for a description of the required program elements.

¹²⁹ In-Kind ETFs are excepted from the classification and highly liquid investment minimum requirements. See *infra* section III.J. In addition, funds whose portfolios consist primarily of highly liquid investments would not be required to determine a highly liquid investment minimum. See *infra* section III.D.5.

¹³⁰ See, e.g., ICI Comment Letter I; BlackRock Comment Letter; Invesco Comment Letter; Vanguard Comment Letter.

¹³¹ See, e.g., ICI Comment Letter I; Dechert Comment Letter; Vanguard Comment Letter.

The liquidity risk management program requirements of rule 22e-4, as well as related disclosure and reporting requirements, will apply to all registered open-end funds, except money market funds.¹³² Rule 22e-4 will apply to open-end ETFs, but incorporates tailored program requirements to reflect their particular liquidity-related risks.¹³³ The final rule also excludes from the highly liquid investment minimum requirement funds whose portfolios consist primarily of highly liquid investments. Closed-end funds are excluded from the scope of rule 22e-4,¹³⁴ and UITs are not subject to the rule's general program requirement, although each UIT's principal underwriter or depositor will be required to determine, on or before the date of the initial deposit of portfolio securities into the UIT, that the portion of illiquid investments that the UIT holds or will hold at the date of deposit that are assets is consistent with the redeemable nature of the securities it issues.¹³⁵ We discuss these scope determinations in more detail below.

a. Inclusion of Funds with All Investment Strategies and Inclusion of ETFs within the Scope of Rule 22e-4

We are not excluding funds with any particular strategies from the scope of rule 22e-4.¹³⁶ We proposed to apply rule 22e-4 to all open-end funds (except money market funds) regardless of the fund's investment strategy, stating that even funds with investment strategies that have historically entailed little liquidity risk could experience liquidity stresses in certain

¹³² Although money market funds are excluded from the scope of rule 22e-4, they will be subject to the amendments to Form N-1A and Form N-CEN. *See infra* section III.A.2.a (“Inclusion of Funds with All Investment Strategies and Inclusion of ETFs within the Scope of Rule 22e-4”); section III.A.2.b (“Inclusion of Funds of All Sizes within the Scope of Rule 22e-4”); and section III.A.2.e (“Exclusion of Money Market Funds from the Scope of Rule 22e-4”).

¹³³ *See infra* section III.J.

¹³⁴ *See infra* section III.A.2.c (“Exclusion of Closed-End Funds from the Scope of Rule 22e-4”).

¹³⁵ *See infra* section III.K.

¹³⁶ *But see infra* section III.D.5 (discussing exclusion of In-Kind ETFs as well as funds that primarily hold highly liquid investments from the highly liquid investment minimum requirement).

environments.¹³⁷ We also stated that different types of funds within the same broad investment strategy could demonstrate different levels of liquidity and relatedly, different levels of liquidity risk.

Some commenters expressed concern about the costs of some of the proposed requirements relative to the liquidity risks typically associated with certain investment strategies,¹³⁸ as well as concerns about burdensome effects of some particular requirements for certain strategies.¹³⁹ Other commenters, however, generally supported a program requirement that applies to all registered open-end funds, regardless of the fund's investment strategy.¹⁴⁰ We believe the modifications to the proposal we are adopting (in particular, changes to the classification requirement and the proposed three-day liquid asset minimum requirement) appropriately address commenters' concerns and reflect support that some commenters provided for a program requirement that applies to all registered open-end funds.

As noted above, rule 22e-4 will apply to open-end ETFs, although we are adopting certain tailored program requirements for ETFs.¹⁴¹ Some commenters objected to all or certain

¹³⁷ See Proposing Release, *supra* footnote 9, at nn.123-125 and accompanying text.

¹³⁸ See, e.g., *infra* footnote 1107 and accompanying text.

¹³⁹ For example, some commenters expressed concerns about the extent to which the proposed liquidity classification factors were applicable to certain investment strategies, particularly funds that invest in fixed income or other OTC assets (see, e.g., Comment Letter of Federated Investors, Inc. (Jan. 13, 2016) ("Federated Comment Letter"); Comment Letter of Government Finance Officers Association (Jan. 13, 2016) ("GFOA Comment Letter"); Comment Letter of Nuveen Fund Advisors, LLC (Jan. 13, 2016) ("Nuveen Comment Letter"); Comment Letter of OppenheimerFunds (Jan. 13, 2016) ("Oppenheimer Comment Letter")). Commenters also expressed concerns about the extent to which a three-day liquid asset minimum requirement could impede an index fund's ability to track its index (see, e.g., BlackRock Comment Letter; HSBC Comment Letter; Invesco Comment Letter; SIFMA Comment Letter I).

¹⁴⁰ See, e.g., CRMC Comment Letter; Comment Letter of Eaton Vance Investment Managers (Jan. 13, 2016) ("Eaton Vance Comment Letter I").

¹⁴¹ We note that rule 22e-4 only applies to ETFs that are structured as open-end funds. For ease of reference, however, unless indicated otherwise, when we refer to ETFs we mean open-end ETFs only.

proposed program requirements applying to ETFs.¹⁴² We respond in detail to these comments in section III.J below. We note, however, that while ETFs' liquidity risks can differ from the liquidity risks faced by other open-end funds, ETFs still have liquidity-related risks that could affect their shareholders, as well as the broader markets in which they operate. The tailored requirements that we are adopting for ETFs respond to commenters' suggestions that the Commission tie these funds' liquidity risk management obligations to the particular risks that they face, as well as our assessment of how these funds' risks could most appropriately be addressed.¹⁴³

b. Inclusion of Funds of All Sizes within the Scope of Rule 22e-4

Also, as proposed, we are not excluding any fund from the scope of rule 22e-4 on the basis of size or adopting different liquidity requirements for relatively small funds. As discussed in the Economic Analysis section below, smaller funds tend to demonstrate relatively high flow volatility, and thus we believe they should be subject to the same liquidity risk management requirements as other funds.¹⁴⁴ Conversely, some commenters argued that the proposed classification requirement could unduly burden larger funds by inappropriately making these funds appear to be less liquid than they actually are, and we have incorporated certain modifications to the proposed classification requirement that we believe respond to these concerns, as discussed below.¹⁴⁵

c. Exclusion of Closed-End Funds from the Scope of Rule 22e-4

As proposed, rule 22e-4 would have excluded closed-end investment companies from the

¹⁴² See *infra* footnotes 839-841 and accompanying text.

¹⁴³ See *infra* section III.J.

¹⁴⁴ See *infra* footnote 1160 and accompanying text.

¹⁴⁵ See *infra* section III.C.3.b.

scope of rule 22e-4. As discussed in detail in the Proposing Release, closed-end funds' liquidity needs are different from those of open-end funds, because closed-end funds generally do not issue redeemable securities and are not subject to sections 22(c) and 22(e) of the Investment Company Act.¹⁴⁶ Although closed-end interval funds do have to comply with certain liquidity standards under rule 23c-3 and therefore must manage their liquidity risk, we are not subjecting them to rule 22e-4 because they are already required to adopt written liquidity procedures under rule 23c-3(b)(10)(iii).¹⁴⁷ Closed-end interval funds may be better able to anticipate their liquidity needs than open-end funds because closed-end interval funds do not permit daily redeemability, closed-end interval funds must limit the size and timing of repurchase offers, and rule 23c-3 requires shareholders who wish to tender their shares pursuant to a repurchase offer to provide advance notice thereof to such funds.¹⁴⁸ Commenters uniformly agreed that closed-end funds should be excluded from the scope of rule 22e-4 and we continue to believe that closed-end funds (including closed-end interval funds) should be excluded from the rule's scope.

d. Separate Requirements for UITs Under Rule 22e-4

¹⁴⁶ See Proposing Release, *supra* footnote 9, at nn.132-135 and accompanying text. Certain closed-end funds ("closed-end interval funds") do elect to repurchase their shares at periodic intervals pursuant to rule 23c-3 under the Investment Company Act.

¹⁴⁷ See Proposing Release, *supra* footnote 9, at n.134.

¹⁴⁸ See *id.*, at text following n.135.

As proposed, the scope of rule 22e-4 did not include UITs.¹⁴⁹ As adopted today, the rule will require a limited liquidity review under which the UIT's principal underwriter or depositor determines, on or before the date of the initial deposit of portfolio securities into the UIT, that the portion of the illiquid investments that the UIT holds or will hold at the date of deposit that are assets is consistent with the redeemable nature of the securities it issues.¹⁵⁰ UITs and their principal underwriters and depositors will not, however, be subject to any of the rule's other liquidity risk management program requirements.

While one commenter supported excluding UITs from the scope of rule 22e-4,¹⁵¹ several other commenters argued that ETFs structured as UITs should be subject to the same rule requirements as ETFs structured as open-end funds.¹⁵² We respond in detail to these comments in section III.K below, including discussing how we believe the requirement to determine that a UIT's illiquid investment holdings are consistent with the redeemable nature of the UIT's securities responds to commenters' concerns.

e. Exclusion of Money Market Funds from the Scope of Rule 22e-4

Finally, as proposed, money market funds are excluded from the scope of rule 22e-4. Money market funds are currently subject to extensive requirements concerning the liquidity of their portfolio assets that are more stringent in many respects than the requirements of rule 22e-4, due to the historical redemption patterns of money market fund investors and the characteristics

¹⁴⁹ See Proposing Release, *supra* footnote 9, at section III.A.2.

¹⁵⁰ See rule 22e-4(c). The rule also requires UITs to maintain a record of that determination for the life of the UIT and for five years thereafter.

¹⁵¹ See ICI Comment Letter I.

¹⁵² See, e.g., Comment Letter of Anonymous (Jan. 13, 2016) ("Anonymous Comment Letter I"); BlackRock Comment Letter.

of the assets held by money market funds.¹⁵³ Money market funds also are already subject to broad liquidity-related disclosure and reporting requirements,¹⁵⁴ and they have certain tools at their disposal to manage heavy redemptions that are not available to other open-end funds.¹⁵⁵ For these reasons, we did not include money market funds within the scope of the proposed rule, and commenters uniformly agreed that money market funds should be excluded from the rule's scope.¹⁵⁶ We continue to believe that money market funds should be excluded from the scope of rule 22e-4.

B. Assessment, Management, and Review of Liquidity Risk

Section 22(e) of the Investment Company Act requires a registered investment company¹⁵⁷ to make payment to shareholders for securities tendered for redemption within seven days of their tender.¹⁵⁸ The legislative history of the Act indicates that shareholder dilution was a significant concern of the Act's framers.¹⁵⁹ An open-end fund's ability to pay redeeming shareholders within this seven-day period without significant dilution is directly related to its liquidity. Thus, assessing and managing liquidity risk in a comprehensive manner is critical to an open-end fund's capacity to honor redemption requests within this seven-day period, as well as within any shorter time period disclosed in the fund's prospectus or advertising materials, while mitigating dilution.

¹⁵³ See Proposing Release, *supra* footnote 9, at nn.145-150 and accompanying text.

¹⁵⁴ See *id.*, at nn.151-152 and accompanying text.

¹⁵⁵ See *id.*, at nn.153-155 and accompanying text.

¹⁵⁶ See, e.g., CRMC Comment Letter; Eaton Vance Comment Letter I; ICI Comment Letter I; Comment Letter of Voya Investment Management (Jan. 12, 2016) ("Voya Comment Letter").

¹⁵⁷ See *supra* footnote 4 and accompanying text.

¹⁵⁸ See *supra* footnote 36.

¹⁵⁹ See *supra* footnote 7 and accompanying text.

Today we are adopting a new liquidity risk assessment and management framework for funds. Specifically, rule 22e-4 requires a fund to assess, manage, and periodically review its liquidity risk, considering certain factors as applicable. As discussed in more detail below, the requirements we are adopting incorporate a definition of “liquidity risk” that focuses on whether a fund can meet redemption requests without significant dilution of remaining investors’ interests rather than, as proposed, whether the fund can meet redemption requests without materially affecting the fund’s NAV.¹⁶⁰ We are also adopting certain changes to the proposed factors that a fund would consider in assessing and managing its liquidity risk. These changes aim to simplify and streamline the proposed liquidity risk assessment and management factors, and reflect additional considerations that the Commission, along with certain commenters, believes could entail heightened liquidity risk. Notably, the proposed requirement to consider a fund’s investment strategy and portfolio liquidity in assessing and managing liquidity risk now incorporates the instruction that this consideration includes whether the investment strategy is appropriate for an open-end fund, as well as whether the strategy involves a relatively concentrated portfolio or large positions in particular issuers.¹⁶¹ Additionally, the proposed requirement to consider a fund’s short-term and long-term cash flow projections has been simplified to eliminate the five separate sub-considerations relevant to this factor that were incorporated in the proposed rule, but which now are discussed as guidance in this Release.¹⁶²

We proposed liquidity risk assessment and management program requirements with the primary goals of reducing the risk that funds would be unable to meet redemption and other legal

¹⁶⁰ See *infra* section III.B.1.a.

¹⁶¹ See *infra* section III.B.2.a.

¹⁶² See *infra* section III.B.2.b.

obligations, minimizing dilution, and elevating the overall quality of liquidity risk management across the fund industry while at the same time providing funds with reasonable flexibility to adopt policies and procedures that would be most appropriate to assess and manage their liquidity risk.¹⁶³ As we discuss throughout this section, we believe that the modified requirements we are adopting today continue to reflect these goals, while promoting a more efficient and workable framework.

1. *Definition of “Liquidity Risk”*

Rule 22e-4, as adopted today, defines “liquidity risk” as the risk that a fund could not meet requests to redeem shares issued by the fund without significant dilution of remaining investors’ interests in the fund.¹⁶⁴ This definition is largely similar to the proposed definition of “liquidity risk,” that is, the risk that a fund could not meet requests to redeem shares issued by the fund that are expected under normal conditions, or are reasonably foreseeable under stressed conditions, without materially affecting the fund’s NAV.¹⁶⁵ However, in response to comments, the revised definition substitutes the phrase “without significant dilution of remaining investors’ interests in the fund” for the phrase “without materially affecting the fund’s net asset value.” The definition also does not include references to redemption requests that are expected under normal conditions or reasonably foreseeable under stressed conditions. Instead, the final definition simply refers to “requests to redeem.” We believe our modifications to the liquidity

¹⁶³ See Proposing Release, *supra* footnote 9, at paragraph following n.261.

¹⁶⁴ When determining whether a fund’s liquidity risk will cause significant dilution for purposes of this definition, a fund should consider the impact of liquidity risk on the total net assets of the fund and the adverse consequences such dilution will have on all the fund’s remaining shareholders. Furthermore, as discussed above, a fund’s inability to meet redemption requests may cause harm to shareholders. See, e.g., *supra* footnotes 81-84 and accompanying text for a discussion of the suspension of shareholder redemptions in the Third Avenue Focused Credit Fund following a period of heavy redemptions that the fund stated reduced the fund’s portfolio liquidity.

¹⁶⁵ See proposed rule 22e-4(a)(7); see also Proposing Release, *supra* footnote 9, at text accompanying n.255.

risk factors used to assess a fund’s liquidity risk, as discussed below, make any reference to market conditions within the definition of liquidity risk unnecessary, confusing, and duplicative.¹⁶⁶

a. Evaluating Risk of Significant Dilution of Remaining Investors’ Interests

Multiple commenters objected to the proposed inclusion of any NAV-impact standard in the definition of “liquidity risk.” One commenter argued that including the concept of “without materially affecting the fund’s net asset value” in the definition of liquidity risk would inappropriately merge liquidity and valuation, which are subject to different regulatory and compliance controls.¹⁶⁷ Many commenters also objected that including such a price concept in the definition of “liquidity risk” would incorrectly indicate that market impact can be accurately identified and measured separate from market price movements generally.¹⁶⁸ These commenters argued that many factors (including market volatility, portfolio composition, and trade execution and activity) influence the price at which a fund transacts in a security as well as the levels of cash the fund holds, and thus it is difficult to identify the effects of the fund’s transaction activity on the fund’s NAV. Finally, some commenters argued that the inclusion of a NAV-impact standard in the definition of “liquidity risk” could lead investors to believe that appropriate liquidity risk management will protect their investments from declining in value.¹⁶⁹

While we agree that liquidity and valuation are distinct concepts, we consider these

¹⁶⁶ See rule 22e-4(b)(1)(i).

¹⁶⁷ See SIFMA Comment Letter I.

¹⁶⁸ See, e.g., Comment Letter of Credit Suisse (Jan. 13, 2016) (“Credit Suisse Comment Letter”); Comment Letter of Dodge & Cox (Jan. 21, 2016) (“Dodge & Cox Comment Letter”); Comment Letter of MFS Investment Management (Jan. 13, 2016) (“MFS Comment Letter”); SIFMA Comment Letter I; Comment Letter of Investment Company Institute (May 17, 2016) (“ICI Comment Letter III”) (encouraging the Commission to adopt a definition of liquidity risk that incorporates language related directly to dilution rather than value impact on the NAV).

¹⁶⁹ See, e.g., ICI Comment Letter I; MFS Comment Letter; SIFMA Comment Letter I.

concepts as having certain inter-relationships. First, liquidity risk in an open-end fund inherently involves an assessment of the liquidity of the fund's investments. Common definitions of investment liquidity include consideration of the value impact or costs from trading that investment.¹⁷⁰ Second, our staff has observed on many occasions when a fund was unwilling to transact in certain portfolio investments when such sales would yield a price that the fund considered unacceptable.¹⁷¹ This relationship is clear in the Commission guidelines limiting a fund's investment in illiquid investments. These guidelines specify that an illiquid investment is one that cannot be sold or disposed of within seven days *at approximately the value at which the fund has valued the investment*" (emphasis added).¹⁷² We continue to believe that the

¹⁷⁰ See, e.g., Radhakrishnan Gopalan, *et al.*, *Asset Liquidity and Stock Liquidity*, 47 J. FIN & QUANT. ANAL. 333 (2012), available at http://apps.olin.wustl.edu/faculty/gopalan/asset_stock_liquidity.pdf ("An asset is liquid if it can be converted into cash quickly and at a low cost."); Yakov Amihud & Haim Mendelson, *Liquidity, Asset Prices, and Financial Policy*, 47 FIN. ANAL. J. 56 (1991), available at http://www.jstor.org/stable/4479488?seq=1#page_scan_tab_contents ("An asset is liquid if it can be bought or sold at the current market price quickly and at low cost.").

In addition, we note that many funds disclose liquidity risk as a principal investment risk in their prospectuses, and these disclosures often reference possible adverse value impacts from selling fund investments under certain conditions. See, e.g., Schwab Strategic Trust rule 485(b) Registration Statement (June 30, 2016), available at <https://www.sec.gov/Archives/edgar/data/1454889/000119312516632635/d203200d485bpos.htm> ("Liquidity Risk. The fund may be unable to sell certain securities, such as illiquid securities, readily at a favorable time or price, or the fund may have to sell them at a loss."); Voya Variable Funds rule 485(b) Registration Statement (May 1, 2016), available at <https://www.sec.gov/Archives/edgar/data/2664/000119312516562669/d124096d485bpos.htm> ("Liquidity: If a security is illiquid, the [fund] might be unable to sell the security at a time when the [fund's] manager might wish to sell, or at all. Further, the lack of an established secondary market may make it more difficult to value illiquid securities, exposing the [fund] to the risk that the price at which it sells illiquid securities will be less than the price at which they were valued when held by the [fund]. The prices of illiquid securities may be more volatile than more liquid investments. The risks associated with illiquid securities may be greater in times of financial stress. The [fund] could lose money if it cannot sell a security at the time and price that would be most beneficial to the Portfolio.").

¹⁷¹ That is, the price that a portfolio manager could realistically receive for certain portfolio investments could, in effect, render such investments de facto illiquid if these pricing considerations cause the portfolio manager to refrain from selling them. See, e.g., Third Avenue Temporary Order, *supra* footnote 12 ("On December 9, 2015, after considering the environment the Fund was in and the likelihood that incremental sales of portfolio securities to satisfy additional redemptions would have to be made at prices that would unfairly disadvantage all remaining shareholders, the Board determined that the fairest action on behalf of all shareholders would be to adopt a plan of liquidation.").

¹⁷² See *supra* footnote 39 and accompanying text.

inclusion of a conceptual relationship between liquidity and sale price in the definition of “liquidity risk” is appropriate.¹⁷³ Such a relationship indicates that liquidity risk involves the risk that a fund will not be able to meet redemption requests under any circumstances, as well as the risk that a fund could meet redemption requests, but only in a manner that adversely affects the fund’s non-redeeming shareholders through significant dilution.¹⁷⁴

We believe a definition of “liquidity risk” that includes a reference to the value impact from trading portfolio investments should not imply that mutual fund shareholders are guaranteed a protected NAV or that the fund cannot sell investments at a loss due to market risk, credit deterioration, or liquidity risk. Indeed, funds’ narrative risk disclosure in their registration statements and other shareholder communications generally should make clear those risks that could adversely affect the fund’s NAV, yield, and total return, including liquidity-related risks.¹⁷⁵ However, we believe defining liquidity risk clarifies what funds must manage under rule 22e-4,

¹⁷³ We also note that several commenters favorably discussed foreign and international regulators’ liquidity risk management regimes, including ones that define the concepts of liquid (or illiquid) portfolio assets, as well as funds’ liquidity risk, with reference to value impact or a discount that the fund may incur upon sale. *See, e.g.*, Dechert Comment Letter (favorably discussing certain liquidity risk management requirements, including the definition of “liquidity risk,” under the UCITS Directive); ICI Comment Letter I (noting that the Commission could look to other jurisdictions, including the European Union, for support for a principles-based program rule); Invesco Comment Letter (also noting that the UCITS Directive provides a framework for a principles-based liquidity risk management program requirement); *see also* Commission Directive 2010/43/EU, OJ L 176 (2010), at Ch. 1, Art. 3(8) (defining “liquidity risk” as “the risk that a position in the UCITS portfolio cannot be sold, liquidated or closed at limited cost in an adequately short time frame and that the ability of the UCITS to comply at any time with its redemption obligation is thereby compromised”); Ontario Securities Commission, Report on Staff’s Continuous Disclosure Review of Mutual Fund Practices Relating to Portfolio Liquidity, OSC Staff Notice 81-727 (June 25, 2015) (definition of “illiquid asset” refers to the “ability to readily dispose of a portfolio asset through a market facility on which public quotations are available at a price that approximates the amount at which the portfolio asset is valued”).

We note as well that U.S. banking regulators have defined “liquidity” as “a financial institution’s capacity to meet its cash and collateral obligations at a reasonable cost.” Interagency Policy Statement on Funding and Liquidity Risk Management, 75 FR 13656 (Mar. 22, 2010), available at <http://www.occ.gov/news-issuances/federal-register/75fr13656.pdf>.

¹⁷⁴ *See supra* footnote 79 and accompanying text.

¹⁷⁵ *See, e.g.*, Item 4(b) of Form N-1A.

and, for the reasons discussed above, we believe impacts on valuation may play a significant role in evaluating the ability to effectively meet shareholder redemptions while lessening the effects of dilution.

Nonetheless, we agree with commenters that using the proposed specific standard of “materially affecting the fund’s NAV” may pose certain challenges. We recognize that it may be difficult to calculate the particular market impact that a fund’s transactions in an investment will have on that investment’s price, which some commenters suggested was inherent to the proposed standard. There could be other reasons for a fund’s NAV fluctuating, separate from the fund’s sales of portfolio investments to meet redemption requests as well.

Accordingly, in the final rule we have modified the NAV-impact standard in the definition of “liquidity risk” to substitute the phrase “without significant dilution of remaining investors’ interests in the fund” for the phrase “without materially affecting the fund’s net asset value.” This revised standard more directly corresponds to the concerns of the Act¹⁷⁶ and rule 22e-4 by focusing on meeting investor redemptions without dilution.

We also note that commenter interpretations of the term “materially” varied, with some commenters adopting very narrow interpretations¹⁷⁷ of the term and others taking a more broad view.¹⁷⁸ We note that, for purposes of this definition, the term “significant” is not meant to

¹⁷⁶ See *supra* footnote 32 and accompanying text for a discussion of the liquidity concerns of the Act.

¹⁷⁷ See Comment Letter of Interactive Data Pricing and Reference Data (Dec. 18, 2015) (“Interactive Data Comment Letter”) (noting that there are several possible interpretations of the term, including an NAV price impact based on a one penny movement, among others.).

¹⁷⁸ See SIFMA Comment Letter I (proposing the Commission substitute the phrase “assuming no fire-sale discounting” for the phrase “without materially affecting the fund’s net assets” and arguing that a fire-sale standard is a more appropriate outer boundary for price movements.). We believe that adopting a fire-sale standard as the outer boundary for price movements would be inappropriate because such an extreme outer boundary would fail to capture a fund’s liquidity risk exposure during normal and stressed conditions and would, thus, inadequately address the liquidity risk management concerns of rule 22e-4.

reference slight NAV movements, the causes of which may not be easily distinguishable, nor is it limited only to fire-sale situations. Instead, a fund's liquidity risk management program should focus on the fund's ability to meet redemptions in a manner that does not harm shareholders.¹⁷⁹ In particular, "significant" dilution of remaining investors' interests in the fund can occur at much lower levels of dilution than what would occur in a fire sale situation. We believe "significant" conveys more effectively than "materially" that the definition is not meant to reference slight NAV movements, while avoiding the confusion around the term "materially" evident in the comment letters and better focusing the rule on the level of dilution that would harm remaining investors' interests even in the absence of a fire sale.

Under rule 22e-4, a fund would be required to adopt a liquidity risk management program that is "reasonably designed to assess and manage the fund's liquidity risk." A fund's liquidity risk management program should be appropriately tailored to reflect that fund's particular liquidity risks. Therefore, while a fund is required to consider certain liquidity risk factors specified in rule 22e-4 as applicable, a fund may also, as it determines appropriate, expand its liquidity risk management program beyond the required program elements, and must do so to the extent it would be necessary to effectively assess and manage its liquidity risk.¹⁸⁰ This requirement, however, requires a fund to assess and *manage* liquidity risk and does not require a fund to eliminate all adverse impacts of liquidity risk, which would be incompatible with an investment product such as a mutual fund or ETF, whose NAV may fluctuate for a variety of

¹⁷⁹ The classification requirements under rule 22e-4 include a value impact standard as well, which is based on the number of days within which it is determined that an investment would be convertible to cash (or, in the case of the less-liquid and illiquid categories, sold or disposed of) without the conversion (or, in the case of the less-liquid and illiquid categories, sale or disposition) significantly changing the market value of the investment. See *infra* section III.C and accompanying text.

¹⁸⁰ Rule 22e-4(b) requires that a fund "adopt and implement a written liquidity risk management program that is reasonably designed to assess and manage its liquidity risk," and identifies certain specific elements that a fund must consider in doing so.

reasons, including changing liquidity conditions.

b. Expected and Reasonably Foreseeable Redemption Requests

As proposed, the definition of “liquidity risk” would have required funds to consider redemption requests that are expected under normal conditions, as well as those that are reasonably foreseeable under stressed conditions. Some commenters stated that the concept of redemption requests that are reasonably foreseeable under stressed conditions was vague and could subject funds to ex-post second guessing.¹⁸¹ One commenter suggested that the Commission clarify: (i) whether funds should address both normal and reasonably foreseeable stressed conditions (or select one set of conditions) in assessing liquidity risk; and (ii) the level of market stress that funds should assume in conducting a liquidity risk assessment.¹⁸²

The final definition of liquidity risk eliminates references to redemption requests that are expected under normal conditions or reasonably foreseeable under stressed conditions. The final definition simply refers to “requests to redeem.” We believe our modifications to the liquidity risk factors used to assess a fund’s liquidity risk, including the clarification that a fund must consider certain liquidity risk factors both during normal and reasonably foreseeable stressed conditions, makes any reference to market conditions within the definition of liquidity risk unnecessary, confusing and duplicative. We believe the revised definition also addresses commenters’ concerns that the proposed definition was unclear. We have provided guidance below regarding each liquidity risk factor and the need to consider normal and reasonably foreseeable stressed market conditions.

¹⁸¹ See Federated Comment Letter; NYC Bar Comment Letter.

¹⁸² See AFR Comment Letter.

2. *Liquidity Risk Factors*

Rule 22e-4 will require each fund to assess, manage, and periodically review (with such review occurring no less frequently than annually) its liquidity risk, considering the following factors as applicable:

- Investment strategy and liquidity of portfolio investments during both normal and reasonably foreseeable stressed conditions (including whether the investment strategy is appropriate for an open-end fund, the extent to which the strategy involves a relatively concentrated portfolio or large positions in particular issuers, and the use of borrowings for investment purposes and derivatives);
- Short-term and long-term cash flow projections during both normal and reasonably foreseeable stressed conditions; and
- Holdings of cash and cash equivalents, as well as borrowing arrangements and other funding sources.¹⁸³

A fund may incorporate other considerations, in addition to these factors, in evaluating its liquidity risk.

Like the rule we are adopting today, rule 22e-4 as proposed would have required each fund to assess its liquidity risk, taking certain specified factors into account.¹⁸⁴ Specifically, the proposed rule would have required each fund to take the following factors into account in

¹⁸³ See rule 22e-4(b)(1)(i). We note that rule 22e-4 as adopted also includes two additional factors that an ETF will have to consider as applicable in assessing, managing, and periodically reviewing its liquidity risk, which reflect potential liquidity-related concerns that could arise from the structure and operation of ETFs (including In-Kind ETFs). These are: (i) the relationship between the ETF's portfolio liquidity and the way in which, and the prices and spreads at which, ETF shares trade, including, the efficiency of the arbitrage function and the level of active participation by market participants (including authorized participants); and (ii) the effect of the composition of baskets on the overall liquidity of the ETF's portfolio. These factors are discussed in more detail below. See *infra* section III.J.

¹⁸⁴ See Proposing Release, *supra* footnote 9, at section III.C.1.

assessing the fund's liquidity risk: (i) short-term and long-term cash flow projections, considering size, frequency, and volatility of historical purchases and redemptions of fund shares during normal and stressed periods; the fund's redemption policies; the fund's shareholder ownership concentration; the fund's distribution channels; and the degree of certainty associated with the fund's short-term and long-term cash flow projections; (ii) the fund's investment strategy and liquidity of portfolio investments; (iii) use of borrowings and derivatives for investment purposes; and (iv) holdings of cash and cash equivalents, as well as borrowing arrangements and other funding sources.¹⁸⁵ The person(s) designated to administer the liquidity risk management program must also conduct reviews of the adequacy and effectiveness of the implementation of the liquidity risk management program, and such reviews must occur no less frequently than annually.¹⁸⁶ Commenters generally supported the requirement for a fund to assess its liquidity risk.¹⁸⁷ Additionally, some commenters expressed support for the proposed liquidity risk factors, as well as the proposed requirement to consider these factors in assessing liquidity risk.¹⁸⁸ However, several commenters objected to the proposed requirement for a fund to consider certain specified factors and suggested instead that consideration of the factors be permissive instead of mandatory.¹⁸⁹

We continue to believe that the factors are central to evaluating and managing a fund's liquidity risk and that requiring each fund to consider, as a baseline, a standard set of factors for assessing and managing liquidity risk would promote effective and thorough liquidity risk

¹⁸⁵ See proposed rule 22e-4(b)(2)(iii).

¹⁸⁶ See *id.*

¹⁸⁷ See, e.g., AFR Comment Letter; Comment Letter of CFA Institute (Jan. 12, 2016) ("CFA Comment Letter"); FSR Comment Letter; ICI Comment Letter I.

¹⁸⁸ See, e.g., AFR Comment Letter; CRMC Comment Letter; ICI Comment Letter I; Invesco Comment Letter.

¹⁸⁹ See, e.g., CFA Comment Letter; MFS Comment Letter; Voya Comment Letter.

management across the fund industry. However, we recognize that some of the proposed factors may not be applicable in assessing and managing the liquidity risk of certain funds or types of funds.¹⁹⁰ One commenter requested that we clarify that a fund only needs to consider factors relevant to its operations, which may include some or all of the factors outlined in rule 22e-4, and others not enumerated.¹⁹¹ We agree, and to the extent any liquidity risk factor specified in rule 22e-4 is not applicable to a particular fund, the fund will not be required to consider it in assessing and managing its liquidity risk. We have therefore added the words “as applicable” in the rule’s instruction to consider the specified factors.¹⁹² For example, a fund will not be required to consider the use of borrowings for investment purposes and derivatives, as specified under rule 22e-4(b)(1)(i)(A), if that fund does not engage in borrowing or use derivatives. Similarly, a fund that maintains borrowing sources for investment purposes will be required to consider the use of borrowings for investment purposes as specified under the rule. We also believe that condensing and simplifying the proposed factors helps respond to commenters’ concerns that the proposed factors were overly complex¹⁹³ and potentially inapplicable to certain funds.¹⁹⁴

As noted above, this list of liquidity risk factors is not meant to be exhaustive. In assessing, managing, and periodically reviewing its liquidity risk, a fund may take into account considerations in addition to the factors set forth in rule 22e-4 and must do so to the extent

¹⁹⁰ See Proposing Release, *supra* footnote 9, at section III.C.1.

¹⁹¹ See ICI Comment Letter I.

¹⁹² See rule 22e-4(b)(1)(i) (requiring a fund to consider, “as applicable,” certain factors); *see also* FSR Comment Letter (supporting the proposed liquidity risk assessment requirement and agreeing with the Commission’s position in the proposal that a fund would not be required to consider those factors that are not applicable to that particular fund).

¹⁹³ See, e.g., Comment Letter of Better Markets, Inc. (Jan. 13, 2016) (“Better Markets Comment Letter”).

¹⁹⁴ See, e.g., ICI Comment Letter I; MFS Comment Letter.

necessary to adequately assess and manage the fund's liquidity risk.¹⁹⁵ For example, as discussed in the Proposing Release, if a fund elects to conduct stress testing to determine whether it has sufficient liquid investments to cover different levels of redemptions, a fund may wish to incorporate the results of this stress testing into its liquidity risk assessment and management.¹⁹⁶ We continue to believe that stress tests that analyze the proposed factors could be particularly useful to a fund in evaluating its liquidity risk.

Below we provide guidance on specific issues associated with each of the liquidity risk factors and also discuss the Commission's decision to adopt each of these factors (some with modifications).

a. Investment Strategy and Portfolio Liquidity

We are adopting the proposed requirement for a fund to consider its investment strategy and portfolio liquidity in assessing, managing, and periodically reviewing its liquidity risk, but with certain modifications in response to commenters.¹⁹⁷ The principal changes include a requirement to consider whether the investment strategy is appropriate for an open-end fund, as well as the extent the strategy involves a relatively concentrated portfolio or large positions in particular issuers, and a clarification that this factor should be assessed both during normal and reasonably foreseeable stressed conditions.

We continue to believe that various aspects of a fund's investment strategy—including whether the fund is actively or passively managed¹⁹⁸ and a fund's portfolio management

¹⁹⁵ See note 180 and accompanying text.

¹⁹⁶ See Proposing Release, *supra* footnote 9, at paragraph accompanying n.266.

¹⁹⁷ See rule 22e-4(b)(1)(i)(A).

¹⁹⁸ See Proposing Release, *supra* footnote 9, at paragraph accompanying nn.292-295 (discussing factors that could increase or decrease the liquidity risk associated with index-based strategies versus actively-managed strategies).

decisions that are meant in part to decrease an undesirable tax impact on the fund¹⁹⁹— could significantly affect the fund’s liquidity risk. Also the extent to which the fund is diversified, including a fund’s status as a regulated investment company under Subchapter M of the Internal Revenue Code, as well as its principal investment strategies as disclosed in its prospectus, could affect its liquidity risk in that the fund could be limited by its diversification obligations in its ability to sell certain portfolio securities.²⁰⁰ We note, for example, that the Third Avenue Focused Credit Fund stated that its status as a regulated investment company under Subchapter M limited the fund’s ability to return cash to its shareholders after it suspended redemptions because of its need to comply with certain asset diversification tests to maintain its regulated investment company status.²⁰¹ As discussed in the Proposing Release, we also continue to caution that while a fund’s investment strategy is an important factor in evaluating a fund’s liquidity risk, different types of funds within the same broad investment strategy may demonstrate different levels of liquidity, (and thus, presumably, different levels of liquidity risk).²⁰²

¹⁹⁹ See Proposing Release, *supra* footnote 9, at paragraph accompanying n.299 (detailing the ways in which a fund’s tax management strategy could make its portfolio managers unwilling to sell certain portfolio assets in order to meet redemptions, which could in turn increase the fund’s liquidity risk compared to a similarly situated fund).

²⁰⁰ See Proposing Release, *supra* footnote 9, at paragraph accompanying nn.296-298 (discussing the extent to which a fund’s portfolio is diversified (or, relatedly, a fund’s concentration in certain types of portfolio assets) could have ramifications on the fund’s potential liquidity risk, including the ways that various diversification requirements could constrain its ability to sell certain portfolio securities in order to meet redemptions).

²⁰¹ See Third Avenue Focused Credit Fund Update (Mar. 8, 2016), available at <http://thirdave.com/wp-content/uploads/2016/04/03-09-16-FCF-Call-Transcript-1.pdf> (noting that, because one of the diversification tests under Subchapter M would require the fund to have less than 50% of its assets in concentrated positions, the fund needed to retain cash in order not to violate this test, in light of the manner in which it chose to manage the fund’s liquidation of its other assets).

²⁰² See Proposing Release, *supra* footnote 9, at n.301 and accompanying text.

Consideration of Strategy Appropriateness for Open-End Fund Structure

We are adopting several modifications to the proposed requirement to consider a fund's investment strategy and portfolio liquidity in assessing, managing, and periodically reviewing its liquidity risk. First, we clarify in final rule 22e-4 that consideration of investment strategy must take into account whether the fund's strategy is appropriate for an open-end fund. This clarification reflects several commenters' suggestions that a fund's liquidity risk management program could (or should) involve a consideration of whether the fund's investment strategy and permissible holdings are suitable for the open-end structure.²⁰³

We agree with this suggestion raised by commenters. As discussed above, all open-end funds are subject to section 22(e) of the Investment Company Act, which requires a fund to pay redemption proceeds within seven days after receipt of a redemption request, and hold themselves out at all times as being able to meet redemptions (in many cases within an even shorter period of time).²⁰⁴ To the extent that a fund's investment strategy involves investing in securities whose liquidity is limited, or otherwise entails a significant degree of liquidity risk, the fund may not be able to meet its redemption and other legal obligations, or may not meet redemptions without diluting its shareholders' interests in the fund. We understand that it is a common best practice for a fund and its management to consider the appropriateness of a fund's investment strategy in the context of launching an open-end fund, and then for an open-end fund

²⁰³ See BlackRock Comment Letter (“[W]e recommend that the Commission consider whether funds should be required to explicitly address the level of position concentration that is appropriate for the fund's investment strategy and investor profile in [liquidity risk management] policies and procedures”); ICI Comment Letter I (“A risk-based liquidity management program could require a fund manager, when launching a new mutual fund, to assess whether the fund's investment strategy and permissible holdings are suitable for the open-end structure in light of [its] liquidity characteristics.”); *see also* CRMC Comment Letter (encouraging the Commission to consider whether certain funds may be inappropriate for the open-end fund structure).

²⁰⁴ See *supra* footnotes 34-36, 42-47 and accompanying text.

to continue to manage its liquidity risk such that its strategy and holdings remain appropriate for the open-end structure. However, not all funds appear to consider this. Also, as we have observed funds beginning to pursue more complex investment strategies,²⁰⁵ we believe it is appropriate to require that each open-end fund consider whether it has a liquidity risk management framework in place that corresponds with the liquidity risks inherent in its strategy and its structure as a fund that offers redeemable securities.

We believe that specifically requiring an open-end fund to consider whether its investment strategy is appropriate for the open-end structure would supplement existing practices and provide an important additional layer of shareholder protection. For example, this requirement will likely cause funds to evaluate the suitability of investment strategies that will be permitted under the 15% illiquid investment requirement, but still could entail significant liquidity risk—such as strategies involving highly concentrated portfolios, or strategies involving investment in portfolio investments that are so sensitive to stressed conditions that funds may not be able to find purchasers for those investments during stressed periods.²⁰⁶ Furthermore, funds that have significant holdings of securities with extended settlement periods may face challenges operating as open-end funds and should take these holdings into account when determining whether the fund’s portfolio is appropriate for an open-end fund.²⁰⁷ For example, primarily holding securities with extended settlement periods beyond seven days may not be appropriate

²⁰⁵ See *supra* footnote 11 and accompanying text.

²⁰⁶ We note that, when a fund files its initial registration statement and post-effective amendments thereto with the Commission’s Division of Investment Management for review, Commission staff could request information from the fund regarding the fund’s basis for determining that its investment strategy is appropriate for the open-end structure, just as staff currently may request information from a fund to support its disclosure reflecting the fund’s compliance with various provisions of the Investment Company Act and rules thereunder.

²⁰⁷ See *infra* footnote 378 and accompanying text.

for an open-end fund, as primarily having such extended settlement holdings may raise concerns with the fund's ability to meet redemptions within seven days, particularly if the fund has not established adequate other sources of liquidity.

Because a fund will be required to consider the liquidity risk factors (as applicable) in periodically reviewing its liquidity risk, the final rule requires a fund's periodic liquidity risk review to include a consideration of whether the fund's investment strategy is appropriate for an open-end fund.²⁰⁸ For example, if a fund's illiquid investments exceed 15% of net assets, this could indicate that the fund is encountering liquidity pressures that could significantly impair the fund's ability to meet its redemption and other legal obligations. In this case, we believe it would be appropriate for a fund to review and potentially update its liquidity risk management procedures for handling the fund's high levels of illiquid investment holdings. In circumstances in which it appears unlikely that the fund will be able to reduce its illiquid investment holdings to or below 15% within a period of time commensurate with its redemption obligations, a fund's periodic liquidity risk review could lead the fund to reconsider its continued operation as an open-end fund.²⁰⁹

Consideration of Portfolio Concentration, and Holdings of Large Portfolio Positions

We also are adopting a modification to the proposed liquidity risk factors to clarify that consideration of a fund's investment strategy must include an evaluation of whether the strategy involves a relatively concentrated portfolio or large positions in particular issuers. Some commenters suggested that funds with extraordinarily concentrated portfolios may have

²⁰⁸ See *infra* section III.B.3.

²⁰⁹ Moreover, we note that actions that either directly or indirectly extinguish the rights of shareholders to redeem their shares could, depending on the facts and circumstances, involve violations of section 22(e) and other provisions of the Act, such as section 48(a) (prohibiting a person from doing indirectly, through another person, what that person is prohibited by the Act from doing directly).

particular liquidity risks that could make redeemability from these funds especially challenging.²¹⁰ Our evaluation of these comments, together with recent events discussed below, have led us to revise the proposed “investment strategy” liquidity risk factor to focus on fund concentration issues.

We believe that this component of a fund’s investment strategy is a particularly significant factor in evaluating the extent to which investment strategy contributes to liquidity risk. As we noted in the Proposing Release, while a fund with a relatively more diversified portfolio that needs to sell portfolio investments to build liquidity may be able to select investments for sale based on whether the markets for those investments are favorable, a relatively less diversified fund may have fewer options (*i.e.*, because it has less choice of investments to sell or because the markets for its portfolio investments are uniform or correlated) and could thus be compelled to transact in unfavorable markets.²¹¹ In addition, as discussed below, holding a large portion of a particular issue could adversely affect a fund’s ability to convert the position to cash without a value impact, and this can hamper a fund’s portfolio management flexibility due to the higher liquidity risk in its positions.²¹² Thus, we believe that investment strategies that involve holding large portions of a particular issue—particularly if the market for these securities is thinly traded²¹³ or if the fund’s strategy involves investment in a

²¹⁰ See, *e.g.*, BlackRock Comment Letter; CRMC Comment Letter; ICI Comment Letter I; Invesco Comment Letter.

²¹¹ See Proposing Release, *supra* footnote 9, at paragraph accompanying nn.296-298. However, as also discussed above, the extent to which a fund is required to be diversified, including a fund’s status as a regulated investment company under Subchapter M of the Internal Revenue Code, could affect its liquidity risk in that the fund could be limited by its diversification obligations in its ability to sell certain portfolio securities. See *supra* footnotes 200-201 and accompanying text.

²¹² See *infra* footnote 440 and accompanying text; *infra* paragraph accompanying footnote 450.

²¹³ See *infra* footnote 544 and accompanying text.

relatively small number of holdings—could notably increase a fund’s liquidity risk. As discussed above, the recent suspension of redemptions by Third Avenue Focused Credit Fund, which had a concentrated portfolio and large holdings of particular issues, illustrates how these methods of concentration directly affect liquidity risk, which in turn could adversely affect shareholders to the extent that they are not able to redeem their shares, or redeem their shares only at a significant discount.²¹⁴

Use of Borrowings for Investment Purposes and Derivatives

We have incorporated the proposed requirement to consider a fund’s use of borrowings for investment purposes and derivatives within the requirement to consider investment strategy in assessing, managing, and periodically reviewing a fund’s liquidity risk.²¹⁵ As proposed, this consideration was not included within the investment strategy factor, but instead was a stand-alone liquidity risk factor. However, we believe that including this consideration within the general investment strategy factor is clearer, because a fund’s use of borrowings for investment purposes and derivatives may be viewed as a component of its investment strategy. We note that we have also revised the phrase “use of borrowings and derivatives for investment purposes” that was used in the Proposing Release, and instead are using the term, “use of borrowings for investment purposes and derivatives” in the final rule. We have made this revision in order to clarify that funds should consider all derivatives, including those used for hedging purposes. As

²¹⁴ See, e.g., Jeffrey Ptak & Sarah Bush, *Third Avenue Focused Credit Abruptly Shuttered*, Morningstar (Dec. 11, 2015), available at <http://ibd.morningstar.com/article/article.asp?id=733021&CN=brf295,http://ibd.morningstar.com/archive/archive.asp?inputs=days=14;frmtId=12,%20brf295> (noting that “Third Avenue Focused Credit stood out for its large, concentrated allocation to distressed and other low-quality fare”); see also Third Avenue Temporary Order, *supra* footnote 12 (noting that “Applicants further state that relief permitting the Fund to suspend redemptions in connection with its liquidation would permit the Fund to liquidate its assets in an orderly manner and prevent the Fund from being forced to sell assets at unreasonably low prices to meet redemptions.”).

²¹⁵ See proposed rule 22e-4(b)(2)(iii)(C); rule 22e-4(b)(1)(i)(A).

proposed, this provision could potentially have been read to exclude the consideration of derivatives used for hedging, which was not the intent of the proposed requirement. We believe this clarification will make clear that the requirement is for a fund to consider both use of borrowings for investment purposes and use of derivatives in general. One commenter stated that it agreed that funds should consider the use of derivatives when assessing liquidity risk, including the extent and types of derivatives used, as well as the structure and terms of a fund's derivatives transactions.²¹⁶ No commenters suggested that a fund's use of borrowings for investment purposes and derivatives is inapplicable to a fund's liquidity risk (provided that the fund engages in borrowing or uses derivatives²¹⁷).

We continue to believe that the potential effects of the use of borrowings for investment purposes and derivatives are relevant to assessing, managing, and periodically reviewing a fund's liquidity risk.²¹⁸ As we noted in the Proposing Release, borrowing for investment purposes, whether from a bank²¹⁹ or through financing transactions such as reverse repurchase agreements and short sales,²²⁰ may affect a fund's liquidity risk.²²¹ Similarly, a fund's use of derivatives

²¹⁶ See CFA Comment Letter.

²¹⁷ See *supra* footnotes 191-192 and accompanying text (clarifying that, to the extent one of the factors specified in rule 22e-4(b)(1)(i) is not applicable to a particular fund, the fund would not be required to consider that factor in assessing its liquidity risk).

²¹⁸ See Proposing Release, *supra* footnote 9, at section III.C.1.c.

²¹⁹ See *id.*, at n.303 and accompanying text (noting that, in addition to the asset coverage limitations imposed by section 18 of the Investment Company Act, any borrowing from a bank would be subject to the terms agreed between a fund and the bank, including terms relating to the maturity date of the borrowing and any circumstances under which the borrowing may be required to be repaid).

²²⁰ See *id.*, at nn.304-305 and accompanying text (noting that funds that borrow for investment purposes, for example through financing transactions such as reverse repurchase agreements and short sales, generally do so in reliance on certain Commission guidance, under which funds cover their obligations under such transactions by segregating certain liquid assets, and discussing the effects of asset segregation on funds' liquidity risk).

Segregated assets are considered to be unavailable for sale or disposition, including for redemptions, unless replaced by other appropriate non-segregated assets of equal value. See Securities Trading Practices of Registered Investment Companies, Investment Company Act Release No. 10666 (Apr. 18, 1979) [44 FR

such as futures, forwards, swaps and written options may affect a fund's liquidity risk as well.²²²

We note that in addition to the liquidity of the derivatives positions themselves, assessing, managing, and periodically reviewing liquidity risk generally may include an evaluation of the potential liquidity demands that may be imposed on the fund in connection with its use of derivatives, including any variation margin or collateral calls the fund may be required to meet.²²³ To the extent the fund is required to make payments to a derivatives counterparty, those assets would not be available to meet shareholder redemptions.

25128 (Apr. 27, 1979)] ("Release 10666"). This means that a fund that receives significant redemption requests may need to exit a portion of its financing transactions in order make more liquid investments available for sale to fulfill such requests. Furthermore, if a fund seeks to exit its financing transactions in a declining market, it may need to dispose of a greater amount of its more liquid holdings in order to repay its borrowings, thereby reducing the amount of liquid investments it has available to meet redemptions. Consequently, a fund's assessment and management of its liquidity risk must include an evaluation of the nature and extent of its borrowings and the potential impact of borrowings on the fund's overall liquidity profile.

²²¹ We note that borrowings for investment purposes pose a variety of liquidity risks, including the risk that redemptions may require the sale of securities in amounts exceeding the amount of the redemption, resulting in a reduction of the fund's borrowings. Additionally, even without redemptions, the fund may need to sell securities and reduce borrowings if its investment values decline, which may have negative effects on the fund's liquidity.

²²² See Proposing Release, *supra* footnote 9, at paragraph accompanying nn.306-307 (discussing how the use of derivatives may affect a fund's liquidity risk). Funds that use derivatives under which they have an obligation to pay typically do so in reliance on the guidance we provided in Release 10666 and in related no-action letters issued by our staff, and therefore segregate liquid assets in respect of their obligations under derivatives transactions. See generally Use of Derivatives by Investment Companies under the Investment Company Act of 1940, Investment Company Act Release No. 29776 (Aug. 31, 2011) [76 FR 55237 (Sept. 7, 2011)], at 13-17; see also Use of Derivatives by Registered Investment Companies and Business Development Companies, Investment Company Act Release No. 31933 (Dec. 1, 2015) [80 FR 80884 (Dec. 28, 2015)] ("2015 Derivatives Proposing Release"), at n.47 and accompanying text; see also *supra* footnote 220. Derivatives may therefore raise concerns that are similar to those discussed at footnote 220 in the context of borrowings. Funds also may be required to dispose of assets in order to post required margin with respect to their short sale transactions. In addition, some derivatives transactions—particularly those that are complex or entered into OTC—may be less liquid, have longer settlement periods, or be more difficult to price than other types of investments, which potentially increases the amount of time required to exit such transactions.

²²³ See *In re OppenheimerFunds, Inc., et al.*, Investment Company Act Release No. 30099 (June 6, 2012) (settled action) ("OppenheimerFunds Release") (alleging the adviser made misleading statements regarding two fixed income mutual funds that suffered significant losses during the 2008 financial crisis primarily due to their use of total return swaps to obtain exposure to commercial mortgage-backed securities and noting that the funds "had to raise cash for anticipated [total return swap] contract payments by selling depressed bonds into an increasingly illiquid market.").

Consideration of Investment Strategy and Portfolio Liquidity during Normal and Reasonably Foreseeable Stressed Conditions

Finally, we also are modifying the proposed liquidity risk assessment requirement to clarify that certain liquidity risk factors must be considered during both normal and reasonably foreseeable stressed conditions. As proposed, rule 22e-4 did not specify whether a consideration of these factors should consider normal conditions, stressed conditions, or both. One commenter stated that the proposed rule’s treatment of stressed conditions was unclear,²²⁴ and another said that the proposed rule was unclear about what needed to be considered in assessing “stress.”²²⁵ For those liquidity risk factors that could vary depending on market conditions (*i.e.*, a fund’s portfolio liquidity and cash flow projections), we believe that it is appropriate to require a fund to evaluate those factors in normal and reasonably foreseeable stressed conditions. Thus, if a fund’s portfolio strategy involves investing in securities whose liquidity is likely to decline in stressed conditions, a fund should take this into account in determining how its portfolio liquidity could contribute to its overall liquidity risk. For example, a fund’s portfolio liquidity could decrease in stressed conditions if such conditions led to market participants pulling back on transacting in the fund’s portfolio securities, or if stressed conditions affecting other assets or asset classes were to have correlated effects on the fund’s portfolio securities. In considering normal and reasonably foreseeable stressed conditions, funds should consider historical experience but should recognize that such experience may not necessarily be indicative of future outcomes, depending on changes in market conditions and the fund’s particular circumstances.

We note that “stressed” conditions will likely entail different scenarios for different types of funds. For example, differing levels of changes in interest rates and/or interest rates’ implied

²²⁴ See BlackRock Comment Letter.

²²⁵ See AFR Comment Letter.

volatility could affect two bond funds very differently, depending on factors such as the maturity, coupon rates and other characteristics of the funds' portfolio holdings. Assessment of stressed conditions also should take into account stresses originating outside of market stress. For example, certain funds could be significantly affected by geopolitical stresses, such as an emerging markets debt fund whose holdings' liquidity is affected by factors such as economic uncertainty in the holdings' countries of issuance. The extent to which stressed conditions are reasonably foreseeable will vary depending on the fund's facts and circumstances.

b. Cash Flow Projections

We are adopting the requirement for a fund to consider its short-term and long-term cash flow projections, during both normal and reasonably foreseeable stressed conditions, in assessing and managing its liquidity risk.²²⁶ The proposed rule also included the requirement for a fund to consider its cash flow projections in assessing its liquidity risk. However, we are adopting some modifications to this proposed requirement. Most significantly, although the proposed rule specified five separate considerations a fund would have to take into account in evaluating the extent to which its cash flow projections contribute to its liquidity risk, rule 22e-4 as adopted today does not enumerate these five considerations. Instead, we are discussing these five considerations as guidance that funds should generally take into account in evaluating their cash flow projections, as discussed in more detail below.

We continue to believe, as discussed in the Proposing Release, that understanding a fund's cash flows is important in determining whether the fund will have sufficient cash to satisfy redemption requests.²²⁷ We also continue to believe that the better a fund's portfolio and

²²⁶ See rule 22e-4(b)(1)(i)(B).

²²⁷ See Proposing Release, *supra* footnote 9, at nn.267-268 and accompanying text.

risk managers are able to predict the fund's net flows, the better they will be able to measure and manage the fund's liquidity risk.²²⁸ Predictability about whether periods of market stress or declines in fund performance generally lead to increased redemptions of fund shares is particularly significant, as careful liquidity risk management during these periods could prevent the need to sell less-liquid portfolio assets under unfavorable circumstances. This type of selling, in turn, could create significant negative price pressure on the assets and, to the extent the fund continues to hold a portion of those assets, decrease the value of the assets still held by the fund at least temporarily.²²⁹ To the extent a fund understands the composition of its shareholder base (for example, among retirement investors, other individual investors, or discretionary accounts), it may be able to better predict fund flows in response to market events or fund performance.

Consideration of Cash Flow Projections during Normal and Reasonably Foreseeable Stressed Periods

We also are revising the rule to require a fund to consider its short-term and long-term cash flow projections during both normal and reasonably foreseeable stressed conditions.²³⁰ As discussed above, proposed rule 22e-4 would have required a fund, in evaluating short-term and long-term cash flow projections, to consider the size, frequency, and volatility of historical purchases and redemptions of fund shares during normal and stressed periods.²³¹ Although we are not including a specific requirement for a fund to consider historical purchases and

²²⁸ See *id.*, at n.269 and accompanying text. See also Fidelity Comment Letter (noting that the predictability of fund cash flows varies depending on the predictability of the redemption behavior of the fund's shareholder base. "[F]unds whose shareholders include investors who purchased shares distributed through a retirement program or other planned savings program may exhibit redemption patterns that are relatively more predictable."); BlackRock Comment Letter (noting that funds may need additional data from their distributors and transfer agents regarding shareholder redemption activity to allow funds to make short-term and long-term cash projections).

²²⁹ See Proposing Release, *supra* footnote 9, at n.270 and accompanying text.

²³⁰ See rule 22e-4(b)(1)(i)(B).

²³¹ See proposed rule 22e-4(b)(2)(iii)(A)(1).

redemptions in considering its cash flow projections, we believe continuing to incorporate the concept of normal and reasonably foreseeable stressed conditions within the requirement to consider cash flow projections is critical for a fund to obtain a complete picture of how its cash flows may affect its liquidity risk, particularly because greater, more frequent, or more volatile outflows during stressed conditions could exacerbate a fund's liquidity risk.²³² A fund and its portfolio and/or risk managers should review the guidance we provide below regarding funds' evaluation of the size, frequency, and volatility of historical purchases and redemptions of fund shares during normal and reasonably foreseeable stressed circumstances, as well as similar funds' purchases and redemptions, in determining how normal and reasonably foreseeable stressed market conditions could affect a fund's cash flows and contribute to the fund's liquidity risk.²³³

Guidance on Evaluating a Fund's Cash Flow Projections

As discussed above, rule 22e-4 as adopted today requires a fund to consider its short-term and long-term cash flow projections during both normal and reasonably foreseeable stressed conditions in assessing, managing, and periodically reviewing liquidity risk. This liquidity risk factor simplifies the rule as proposed, which would have codified five separate considerations that would comprise a fund's consideration of its cash flow projections—namely, (i) the size, frequency, and volatility of historical purchases and redemptions of fund shares during normal and reasonably foreseeable stressed periods, (ii) the fund's redemption policies, (iii) the fund's shareholder ownership concentration, (iv) the fund's distribution channels, and (v) the degree of certainty associated with the fund's short-term and long-term cash flow projections. Instead of

²³² See Proposing Release, *supra* footnote 9, at text accompanying and following n.273.

²³³ See *infra* footnotes 236-239 and accompanying text.

enumerating these five considerations in the text of rule 22e-4, we are discussing each of them as guidance in this Release (together, the “cash flow guidance considerations”).

We are not codifying the cash flow guidance considerations to simplify the rule 22e-4 liquidity risk factors and to alleviate certain commenter concerns about the complexity of the proposed factors. Commenters argued that the requirement to consider a specified list of multiple liquidity risk factors is overly complex—making compliance more difficult for funds, and oversight more difficult for the Commission.²³⁴ Commenters discussed the dangers of an analysis that mandates consideration of multiple factors becoming a generic “checklist” approach to liquidity risk management that does not fully capture the business practices, strategies, and risks that are germane to certain funds.²³⁵ We agree that requiring an overly complex liquidity risk assessment analysis could lead to this result, to the detriment of investors. Such procedures could appear to be robust, but in actuality may not reflect (or may underweight) a fund’s most significant risk factors because of the perceived requirement to focus on enumerated factors that may not be particularly important to a fund’s operations and risks. Thus, we believe that simplifying the cash flow liquidity risk factor in rule 22e-4 will benefit funds and their shareholders and continue to advance the Commission’s goal of promoting meaningful liquidity risk analysis.

With respect to the size, frequency, and volatility of historical purchases and redemptions of fund shares, we continue to believe, as discussed in the Proposing Release, that funds whose historical net flows are relatively less volatile in terms of size and frequency will likely entail

²³⁴ See, e.g., Better Markets Comment Letter.

²³⁵ See, e.g., MFS Comment Letter.

less liquidity risk than similar funds with more volatile net flows.²³⁶ A fund should generally review historical purchases and redemptions of fund shares across a variety of market conditions in order to determine how the fund's flows may differ during normal and reasonably foreseeable stressed periods (keeping in mind that historical experience may not necessarily be indicative of future outcomes).²³⁷ In addition to considering its own historical flow data, a fund, particularly a fund without substantial operating history, should consider purchase and redemption activity in funds with similar investment strategies.²³⁸ A fund may wish to evaluate whether the size, frequency, and volatility of its shareholder flows follow any discernible patterns (for example, patterns relating to seasonality, shareholder tax considerations, fund advertising, changes in fund performance ratings provided by third-party rating agencies, and the fund's investment strategy and size).²³⁹

We also continue to believe that a fund generally should consider its normal redemption policies and practices in evaluating the extent to which its cash flow projections may contribute to its liquidity risk. Specifically, as discussed in the Proposing Release, a fund should generally consider its disclosed or advertised time period for paying (or endeavoring to pay) redemption

²³⁶ See Proposing Release, *supra* footnote 9, at nn.272 and accompanying text.

²³⁷ See *supra* footnotes 230-233 and accompanying text. A fund may find it instructive to understand when its highest, lowest, most frequent, and most volatile purchases and redemptions occurred within various time horizons, such as the past one, five, ten, and twenty years (as applicable, considering the fund's operating history).

²³⁸ See Proposing Release, *supra* footnote 9, at text following n.273. We note that consideration of similar funds' purchases and redemptions could show whether the fund's historical flows are typical or aberrant compared to those seen in similar funds and assist new funds in predicting flow patterns.

²³⁹ See Proposing Release, *supra* footnote 9, at nn.274-279 and accompanying text (discussing how a fund's investment strategy could contribute to its shareholder flows and noting that smaller funds may experience greater flow volatility). For instance, we understand that certain investors tend to trade in and out of ETFs with index-based strategies frequently because they invest in these ETFs for hedging and/or short-term trading purposes.

proceeds and whether this time period varies based on the payment method the fund employs.²⁴⁰ For example, a fund whose policies require it to typically pay redeeming shareholders on a next-day basis may have fewer options for managing high levels of redemptions than a fund whose policies require it to typically pay redeeming shareholders on a T+3 basis.²⁴¹

A fund's shareholder ownership concentration also could affect its cash flow projections, as a fund that has a concentrated set of beneficial owners could experience considerable cash outflows from redemptions by a single or small number of shareholders, or by the decisions of an intermediary that has discretionary power over a significant number of shareholder accounts.²⁴² This in turn could hamper a fund's management of liquidity risk if the fund does not have procedures in place to manage large redemptions. For these reasons, we believe a fund should consider the extent to which its shareholder concentration affects its liquidity risk, particularly taking into account other factors that could magnify shareholder concentration-related liquidity risk (*e.g.*, if a fund has an investment strategy that attracts shareholders who trade based on short-term price movements).

We also continue to believe that a fund should consider how its distribution channels could affect its cash flows, including the predictability of its cash flows. For example, a fund may wish to consider the extent to which its redemption practices could depend on its

²⁴⁰ See Item 6(b) of Form N-1A (requiring a fund to briefly identify the procedures for redeeming shares); *infra* section III.M.1 (discussing amendments to Item 11 of Form N-1A).

²⁴¹ To illustrate, when a fund that pays redemption proceeds within one day receives a large redemption request and a fund that pays redemption proceeds within three business days receives a redemption request of the same size, the first fund must satisfy the full request within one day, whereas the second fund has more time to satisfy the redemption request. Even though the shareholder flows of the first and second fund are identical, the redemption policies of the first fund magnify its liquidity risks by requiring that the fund pay redemptions quickly. See, *e.g.*, Proposing Release, *supra* footnote 9, at n.270.

²⁴² We note that a relatively concentrated fund shareholder base may make it easier for funds to communicate with those shareholders or intermediaries about anticipated future redemptions, and thus plan liquidity demands. However, those shareholders are under no legal obligation to forewarn the fund of their redemptions and, particularly in times of stress, may not do so.

distribution channels,²⁴³ as well as whether its distribution channels (particularly, whether the fund's shares are held through omnibus accounts) could make it difficult for a fund to be fully aware of the composition of its underlying investor base,²⁴⁴ including investor characteristics that could affect the fund's short-term and long-term flows.²⁴⁵ A fund's distribution channels could affect its cash flow predictions because certain distribution channels are generally correlated with particular purchase and redemption patterns.²⁴⁶ Additionally, we note that investors in mutual funds distributed through certain channels also may have similar purchase and redemption characteristics relating to their financial and tax-related needs.²⁴⁷

Finally, we continue to believe that a fund should consider the degree of certainty surrounding its short-term and long-term cash flow projections. A fund could consider the length of its operating history (including the fund's experience during points of market instability, illiquidity, or volatility) and any purchase and redemption patterns. A fund may use

²⁴³ For example, mutual funds that are sold through broker-dealers will generally have to meet redemption requests within three business days, because rule 15c6-1 under the Exchange Act effectively establishes a T+3 settlement period for purchases and sales of securities (other than certain types of securities exempted by the rule) effected by a broker or dealer, unless a different settlement period is expressly agreed to by the parties at the time of the transaction.

²⁴⁴ See, e.g., Comment Letter of Coalition of Mutual Fund Investors (Jan. 18, 2016) ("CMFI Comment Letter") (raising concerns regarding omnibus account transparency).

²⁴⁵ These investor characteristics could include whether ownership in the mutual fund is relatively concentrated, as well as whether the types of underlying investors in the fund typically share common investment goals affecting redemption frequency and timing.

²⁴⁶ For instance, investors in mutual funds distributed through a retirement plan channel or other planned savings channel (such as a qualified tuition plan authorized by section 529 of the Internal Revenue Code) may be more likely to be long-term investors who do not trade based on short-term price movements, and their purchase and redemption patterns thus may be relatively predictable compared to those of other investors.

²⁴⁷ For example, taxable investors who are considering purchasing mutual fund shares around capital gains distribution dates have an incentive to delay their purchases until after the distribution, but non-taxable shareholders (such as those who invest through IRAs and other tax-deferred accounts) face no such incentive for delaying purchases. See Woodrow T. Johnson & James M. Poterba, *Taxes and Mutual Fund Inflows around Distribution Dates*, NBER Working Paper 13884 (Mar. 2006, rev'd Mar. 2008), available at <http://economics.mit.edu/files/2512>; see also *supra* footnote 239 and accompanying text (discussing seasonality in mutual fund flows).

ranges in considering cash flow projections and their relationship to liquidity risk. If a fund has implemented policies to encourage certain shareholders (*e.g.*, large shareholders or institutional shareholders) to provide advance notification of their intent to redeem a significant number of shares of the fund, this could increase the degree of probability surrounding its cash flow projections.²⁴⁸

c. Holdings of Cash and Cash Equivalents, Borrowing Arrangements, and Other Funding Sources

We are adopting the requirement for a fund to consider its holdings of cash and cash equivalents, as well as its borrowing arrangements and other funding sources, in assessing, managing, and periodically reviewing its liquidity risk, as proposed.²⁴⁹ As discussed in the Proposing Release, current U.S. Generally Accepted Accounting Principles (“GAAP”) define cash equivalents as short-term, highly liquid investments that are readily convertible to known amounts of cash and that are so near their maturity that they present insignificant risk of changes in value because of changes in interest rates.²⁵⁰ While we understand based on staff outreach and the comments we received on the proposal that many asset managers establish minimum cash and cash equivalent targets as part of their liquidity risk management practices,²⁵¹ commenters stated that significant cash and cash equivalent holdings are not necessarily appropriate for all

²⁴⁸ We understand, based on staff outreach, that advance notification procedures are a relatively common liquidity risk management tool that funds currently employ. *See* Comment Letter of Invesco on the Notice Seeking Comment on Asset Management Products and Activities, Docket No. FSOC-2014-0001 (Mar. 25, 2015), at 11 (“Invesco FSOC Notice Comment Letter”) (noting that Invesco has advance notification arrangements regarding anticipated redemptions above certain levels in place with certain distribution partners).

²⁴⁹ *See* rule 22e-4(b)(1)(i)(C).

²⁵⁰ *See* Proposing Release, *supra* footnote 9, at n.311 and accompanying text.

²⁵¹ *See, e.g.*, Comment Letter of Pacific Investment Management Company LLC (Jan. 13, 2016) (“PIMCO Comment Letter”).

funds and as a stand-alone tool do not necessarily entirely mitigate liquidity risk.²⁵² We agree with commenters that the amount of cash and cash equivalent holdings appropriate for liquidity risk management depends on a particular fund's facts and circumstances. Similarly, we agree with commenters that significant holdings of cash and cash equivalents could still be insufficient to protect a fund with large holdings of illiquid investments (or investments whose liquidity decreases significantly during stressed periods) if the fund were faced with heavy redemptions.²⁵³ But we continue to believe that holdings of cash and cash equivalents can be a valuable liquidity risk management tool because these holdings tend to remain very liquid under nearly all market conditions.²⁵⁴ Thus, a fund could use its cash and cash equivalent holdings in normal and stressed conditions to meet some redemption requests without significant dilution of remaining investors' interests. Holdings of cash and cash equivalents also could provide a fund's portfolio manager with flexibility to readjust its portfolio as it deems advantageous (either in terms of performance or risk management) under changing market circumstances. We therefore believe it is appropriate for a fund to consider its holdings of cash and cash equivalents as part of its liquidity risk assessment.

Several commenters discussed the extent to which a fund's borrowing arrangements and

²⁵² See, e.g., ICI Comment Letter I (noting that fund complexes that specialize in U.S. equity funds, especially those focusing on large-cap stocks, are likely to be able to meet redemptions with only modest holdings of cash or cash equivalents because the U.S. equity market is so liquid); see also *infra* footnote 662 and accompanying text (discussing commenters' concerns that the proposed three-day liquid asset minimum requirement would be construed to require a fund specifically to hold cash and cash equivalents, which commenters argued could prevent funds from meeting their principal investment strategies and could give investors a false sense of security that cash buffers will eliminate liquidity risk).

²⁵³ We also note that a substantial investment in cash and cash equivalents could decrease a fund's total return and/or cause the fund to diverge from its investment strategy, and thus a fund may wish to calibrate its holdings of these instruments to manage its liquidity risk while taking these concerns into consideration.

²⁵⁴ We note that cash and cash equivalent holdings and borrowing arrangements are just two of several liquidity management tools that are at a fund's disposal. Though we are requiring funds to consider these tools, the rule neither creates a substantive obligation on funds to maintain specific levels of cash and cash equivalents nor requires funds to procure any specific borrowing arrangements.

other funding sources could shape the fund's liquidity risk. Some commenters strongly supported the use of borrowing arrangements to help mitigate liquidity risk, asserting that funds historically have generally succeeded in managing liquidity risk, partly due to lines of credit and interfund lending.²⁵⁵ Commenters also asserted that obtaining access to backup sources of liquidity like lines of credit, interfund lending arrangements, and repurchase agreements should be considered beneficial as the flexibility to use these liquidity sources has value to a fund's shareholders.²⁵⁶ However, another commenter argued that asset managers should not meet redemptions through the use of borrowing facilities other than to meet short-term settlement mismatches, as this could potentially disadvantage non-redeeming investors.²⁵⁷

We continue to believe that entering into borrowing or other funding arrangements could assist a fund in meeting redemption requests in certain cases (for example, by bridging any timing mismatches between when a fund is required to pay redeeming shareholders and when any asset sales that the fund has executed in order to pay redemptions will settle).²⁵⁸ However, we have concerns that, in some situations, borrowing arrangements may not be beneficial to a fund's liquidity risk management to the extent that the fund's use of borrowings to meet redemptions leverages the fund at the expense of non-redeeming investors. In such a case, non-redeeming shareholders would effectively bear the costs of borrowing and the increased risk to the fund created by leverage.²⁵⁹ Thus, we believe that funds should consider the likely overall benefits and risks in including such borrowing or other funding arrangements within a liquidity

²⁵⁵ See, e.g., Comment Letter of Independent Directors Council (Jan. 13, 2016) ("IDC Comment Letter").

²⁵⁶ See, e.g., BlackRock Comment Letter; Oppenheimer Comment Letter.

²⁵⁷ See HSBC Comment Letter.

²⁵⁸ See Proposing Release, *supra* footnote 9, at n.314 and accompanying text.

²⁵⁹ See Heartland Release, *supra* footnote 80.

risk management program.

In evaluating the extent to which a fund's borrowing arrangements could help the fund manage its liquidity risk, a fund may wish to consider any aspects of those arrangements that could limit the fund's ability to borrow. For instance, a fund generally may wish to consider the terms of the credit facility (*e.g.* whether the credit facility is committed or uncommitted), as well as the financial health of the institution(s) providing the facility. A fund also generally should consider whether a credit facility would be shared among multiple funds within a fund family. When a credit facility is shared, a fund should assess the extent the facility mitigates its liquidity risk given the liquidity risk associated with the other funds sharing the facility.²⁶⁰ Similarly, with respect to interfund lending within a family of funds, the terms of an interfund lending arrangement and any conditions required under exemptive relief permitting the arrangement²⁶¹ (including limitations on the circumstances in which interfund lending may be used) will shape the role that interfund lending has in a fund's overall liquidity risk management.²⁶²

²⁶⁰ See Proposing Release, *supra* footnote 9, at paragraph accompanying nn.314-317.

²⁶¹ See, *e.g.*, Nationwide Mutual Fund, *et al.*, Investment Company Act Release No. 32115 (May 16, 2016) [81 FR 31988 (May 20, 2016)] (notice of application) ("Nationwide Exemptive Relief"); TCW Alternative Funds, *et al.*, Investment Company Act Release No. 32113 (May 11, 2016) [81 FR 30585 (May 17, 2016)] (notice of application) ("TCW Exemptive Relief"); see also Proposing Release, *supra* footnote 9, at paragraph accompanying nn.318-319.

²⁶² For example, it is common for such exemptive orders to permit interfund lending in circumstances in which there is a timing mismatch between when a fund is required to pay redeeming shareholders and when any asset sales that the fund has executed in order to pay redemptions will settle (*e.g.*, a fund may be required to pay redeeming shareholders within three business days, but the portfolio transactions the fund has executed in order to pay these shareholders may not settle for seven days). A fund can reasonably predict that it will repay borrowed money relatively quickly and reliably under these circumstances. Under these conditions, this type of borrowing would tend to be low risk, and thus entail less liquidity risk than borrowing money to pay redemptions without already having secured a price at which the assets used to cover the borrowing will be sold.

Funds may only engage in interfund lending when it is in the best interests of both the lending and the borrowing fund. The exemptive relief anticipates a fund family's interfund lending arrangements include an assessment of: (i) if the fund participates as a lender, any effect its participation may have on the fund's liquidity risk; and (ii) if the fund participates as a borrower, whether the fund's portfolio liquidity is sufficient to satisfy its obligation to repay the loan along with its other liquidity needs. See Nationwide

3. *Periodic Review of a Fund's Liquidity Risk*

Rule 22e-4 as adopted includes the requirement for a fund to periodically review the fund's liquidity risk, taking into account the same liquidity risk factors a fund would have to consider in initially assessing and managing its liquidity risk.²⁶³ The proposed rule also included the requirement for a fund to periodically review its liquidity risk, considering those factors it would evaluate in initially assessing its liquidity risk.²⁶⁴ Commenters generally supported the proposed liquidity risk review requirement.²⁶⁵ Specifically, some commenters agreed that this requirement will help further the Commission's goals,²⁶⁶ expressed support for the proposed liquidity risk review factors,²⁶⁷ and agreed with the Commission's general approach of permitting funds to develop their own policies and procedures for conducting periodic liquidity risk reviews.²⁶⁸ Other commenters objected to the requirement for a fund to consider certain specified liquidity risk review factors and suggested instead that consideration of the factors be made permissive instead of mandatory.²⁶⁹ Still another commenter argued that the proposed liquidity risk review approach gives funds too much discretion and recommended that the Commission adopt a baseline standard for the frequency of funds' liquidity risk reviews (*i.e.*, adopt an annual or quarterly review requirement).²⁷⁰

Exemptive Relief, *supra* footnote 261; TCW Exemptive Relief, *supra* footnote 261. For example, the relief is not intended to permit a fund to act as lender of last resort to a borrowing fund.

²⁶³ See rule 22e-4(b)(1)(i).

²⁶⁴ See proposed rule 22e-4(b)(2)(iii).

²⁶⁵ See, *e.g.*, CRMC Comment Letter; CFA Comment Letter; Fidelity Comment Letter; ICI Comment Letter I.

²⁶⁶ See CRMC Comment Letter.

²⁶⁷ See, *e.g.*, CRMC Comment Letter; ICI Comment Letter I.

²⁶⁸ See, *e.g.*, CFA Comment Letter; Fidelity Comment Letter.

²⁶⁹ See, *e.g.*, MFS Comment Letter; Voya Comment Letter.

²⁷⁰ See Better Markets Comment Letter.

We are adopting a periodic review requirement substantially as proposed. As discussed above, we have revised the liquidity risk factors that a fund must consider in assessing, managing, and periodically reviewing its liquidity risk. A fund will not have to consider any factor that is not applicable to a particular fund.²⁷¹ This requirement is principles-based, and thus each fund may develop and adopt procedures to review the fund's liquidity risk tailored as appropriate to reflect the fund's particular facts and circumstances.

After evaluating commenters' concerns about the liquidity risk assessment factors, we continue to believe that these factors, modified as discussed above, are central to reviewing a fund's liquidity risk. We also continue to believe that requiring each fund to consider a baseline set of factors, as applicable, in reviewing liquidity risk would promote effective liquidity risk management across the fund industry. As discussed above,²⁷² we believe that our changes to the proposed liquidity risk factors—which highlight particular risks but also condense and simplify some proposed factors—strike an appropriate balance between promoting consistency in funds' consideration of a standard set of liquidity risk factors and easing burdens associated with this analysis.

We considered a commenter's suggestion that the Commission adopt a minimum frequency for funds' liquidity risk review, and we have modified the proposed rule to clarify that a fund's periodic review of its liquidity risk must occur no less frequently than annually.²⁷³ As discussed below, we are adopting a requirement that a fund periodically review, no less frequently than annually its highly liquid investment minimum (as determined considering the

²⁷¹ See *supra* footnote 192 and accompanying text.

²⁷² See *supra* footnotes 193-194 and accompanying text.

²⁷³ See rule 22e-4(b)(1)(i).

same factors that a fund would reference in periodically reviewing its liquidity risk).²⁷⁴ Because this review of a fund's highly liquid investment minimum would, de facto, necessitate a fund's review of its liquidity risk, we believe it is appropriate to align the minimum periods for these reviews. Similarly, as discussed further below, we also are adopting a requirement that a fund's board must review, no less frequently than annually, a written report that describes a review of the adequacy of the fund's liquidity risk management program.²⁷⁵ Accordingly, the minimum period for the liquidity risk review will be aligned with the period in which this report will be presented to the fund's board, creating further synergies. We note, however, that a fund may determine that it is appropriate for its liquidity risk to be reviewed more frequently than annually, depending on the extent to which the required review factors could vary based on market- or sector-wide developments, as well as changes to the fund's operations or other fund-specific circumstances.

C. Classifying the Liquidity of a Fund's Portfolio Investments, and Disclosure and Reporting Requirements Regarding Portfolio Investments' Liquidity Classifications

Today we are adopting requirements for each fund, with the exception of In-Kind ETFs, to classify the liquidity of its portfolio investments. Rule 22e-4 as adopted today requires a fund to classify the liquidity of each portfolio investment based on the number of days within which it determined that it reasonably expects an investment would be convertible to cash (or, in the case of the less-liquid and illiquid categories, sold or disposed of) without the conversion (or, in the case of the less-liquid and illiquid categories, sale or disposition) significantly changing the market value of the investment. Specifically, rule 22e-4 will require a fund to classify each of its

²⁷⁴ See *infra* section III.D.4.

²⁷⁵ See *infra* section III.H.2.

portfolio investments, including its derivatives transactions,²⁷⁶ into one of four liquidity categories:

- *Highly liquid investments*, defined as cash and any investment reasonably expected to be convertible to cash in current market conditions in **three business days** or less without the conversion to cash significantly changing the market value of the investment.
- *Moderately liquid investments*, defined as any investment reasonably expected to be convertible to cash in current market conditions in more than **three calendar days but in seven calendar days or less** without the conversion to cash significantly changing the market value of the investment.
- *Less liquid investments*, defined as any investment reasonably expected to be sold or disposed of in current market conditions in **seven calendar days or less** without the sale or disposition significantly changing the market value of the investment, but where the sale or disposition is reasonably expected to settle in more than seven calendar days.
- *Illiquid investments*, defined as any investment that may not reasonably be expected to be sold or disposed of in current market conditions in seven calendar days or less without the sale or disposition significantly changing the market value of the investment.

This determination must be based on information obtained after reasonable inquiry; the term “convertible to cash” in the category definitions refers to the ability to be sold, with the sale settled. The final rule requires a fund to take into account relevant “market, trading, and investment-specific considerations” in classifying its portfolio investments’ liquidity, but the rule

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See rule 22e-4(b)(1)(ii). The final rule requires a fund to classify all portfolio investments, including investments that are liabilities of the fund. See *infra* section III.C.3.c.

does not detail a list of factors comprising these considerations.²⁷⁷ This Release does include, however, guidance on certain considerations that a fund may wish to evaluate in taking into account relevant market, trading, and investment-specific considerations when classifying the liquidity of its portfolio investments.²⁷⁸ The fund may classify portfolio investments based on asset class, so long as the fund or its adviser,²⁷⁹ after reasonable inquiry, does not have information about any market, trading, or investment-specific considerations that are reasonably expected to significantly affect the liquidity characteristics of an investment that would suggest a different classification for that investment.²⁸⁰ As discussed in more detail below, the fund also must consider the investment's market depth in classifying the investment.²⁸¹ The fund also must review its portfolio investments' classifications at least monthly and more frequently if changes in relevant market, trading, and investment-specific considerations are reasonably expected to materially affect one or more of its investments' classifications.²⁸² Finally, the fund must take into account certain considerations for highly liquid investments that it has segregated to cover certain derivatives transactions.²⁸³

²⁷⁷ See rule 22e-4(b)(1)(ii).

²⁷⁸ See *infra* section III.C.4.

²⁷⁹ The term "adviser" as used in this Release and rule 22e-4 generally refers to any person, including a sub-adviser, that is an "investment adviser" of an investment company as that term is defined in section 2(a)(20) of the Investment Company Act. See *infra* paragraph accompanying footnote 818 (discussing the coordination of liquidity risk management efforts undertaken by various service providers, including a fund's sub-adviser(s)).

²⁸⁰ See rule 22e-4(b)(1)(ii)(A).

²⁸¹ More specifically, the fund must determine whether trading varying portions of a position in a particular investment, in sizes that the fund would reasonably anticipate trading, is reasonably expected to significantly affect the liquidity of that investment, and if so, the fund must take this determination into account when classifying the liquidity of that investment. See rule 22e-4(b)(1)(ii)(B).

²⁸² See rule 22e-4(b)(1)(ii); see also rule 22e-4(b)(1)(i) (imposing an ongoing responsibility on the fund to assess and manage its liquidity risk).

²⁸³ More specifically, with respect to the fund's derivatives transactions that it has classified as moderately liquid investments, less liquid investments, and illiquid investments, it must identify the percentage of the

Rule 22e-4 as proposed would have required each fund to classify the liquidity of its portfolio positions (or portions of a position in a particular asset) and review the liquidity classification of each position on an ongoing basis.²⁸⁴ In classifying and reviewing the liquidity of portfolio assets, proposed rule 22e-4 would have required a fund to consider the number of days within which a fund's position in a portfolio asset (or portions of a position in a particular asset) would be convertible to cash at a price that does not materially affect the value of that asset immediately prior to sale.²⁸⁵ Based on this determination, made using information obtained after reasonable inquiry, the proposed rule would have required a fund to classify each of its positions in a portfolio asset (or portions thereof) into one of six liquidity categories: (i) convertible to cash within 1 business day; (ii) convertible to cash within 2-3 business days; (iii) convertible to cash within 4-7 calendar days; (iv) convertible to cash within 8-15 calendar days; (v) convertible to cash within 16-30 calendar days; and (vi) convertible to cash in more than 30 calendar days.²⁸⁶ The proposed rule would have required a fund to consider certain specified factors, to the extent applicable, in determining the time period in which a portfolio position (or portion thereof) would be convertible to cash.²⁸⁷

Although some commenters acknowledged potential benefits to the proposed classification requirement, most commenters were generally opposed to the proposed six-category liquidity classification framework. As discussed further below, commenters'

fund's highly liquid investments that it has segregated to cover, or pledged to satisfy margin requirements in connection with, derivatives transactions in each of these classification categories. See rule 22e-4(b)(1)(ii)(C); *see also* rule 22e-4(b)(1)(iii)(B) (addressing such percentage of highly liquid investments in connection with determining whether a fund primarily holds highly liquid investments).

²⁸⁴ See Proposing Release, *supra* footnote 9, at section III.B.

²⁸⁵ Proposed rule 22e-4(b)(2)(i).

²⁸⁶ Proposed rule 22e-4(b)(2)(i).

²⁸⁷ Proposed rule 22e-4(b)(2)(ii); *see also infra* section III.C.4.

primary objections were concerns that the proposed classification framework would: (i) not reflect current liquidity risk management practices or industry “best practices”; (ii) require funds to make overly subjective projections about asset liquidity, particularly to the extent that they would have to project a fund’s ability to sell and settle a position well into the future; (iii) place undue reliance on third-party data vendors and analysts; (iv) incorporate a materiality standard that is unclear and impractical to apply; and (v) inappropriately require funds to take position size and settlement timing into account when classifying the liquidity of a portfolio position.

Commenters suggested many alternatives to the proposed classification requirement—both changes to the structure of the proposed classification requirement, as well as suggestions about more granular aspects of the proposed requirement. Although the details vary, commenters raised three primary structural alternatives to the proposed classification requirement: (i) a “principles-based” liquidity classification approach, where each fund would have to classify the liquidity of its portfolio assets, but the Commission would not require any specific classification scheme;²⁸⁸ (ii) a simplified version of the proposed classification system, with fewer classification categories based on shorter time projections than the proposal;²⁸⁹ and (iii) an approach with new classification categories based on qualitative distinctions in the market- and trading-related characteristics of different asset classes under different market conditions, which generally would rely on the Commission mapping different asset classes to

²⁸⁸ See, e.g., AIMA Comment Letter; Comment Letter of the Loan Syndications and Trading Association (Jan. 13, 2016) (“LSTA Comment Letter”); Comment Letter of State Street Global Advisors (Jan. 13, 2016) (“State Street Comment Letter”); Comment Letter of Wellington Management Company LLP (Jan. 13, 2016) (“Wellington Comment Letter”).

²⁸⁹ See, e.g., Eaton Vance Comment Letter I; Interactive Data Comment Letter; Comment Letter of Markit (Jan. 13, 2016) (“Markit Comment Letter”); Comment Letter of Wells Fargo Funds Management, LLC (Jan. 13, 2016) (“Wells Fargo Comment Letter”). Commenters generally suggested three, four, or five classification categories.

each of these new classification categories.²⁹⁰

Our adopted liquidity classification requirement most closely resembles the second alternative described above and is designed to respond to commenters' concerns while also continuing to advance the Commission's goals. As discussed in the Proposing Release, we understand that funds today employ different practices for assessing the liquidity of their portfolios.²⁹¹ After considering comments, however, we continue to believe that a liquidity classification framework based on a days-to-cash determination, with certain modifications from the proposal, is an effective approach to further our goals of creating a meaningful, uniform framework for reporting to the Commission and providing public disclosure about funds' liquidity profiles. To achieve this goal, we believe the rule must provide a consistent methodology for assessing portfolio liquidity. This methodology also will form the basis for the highly liquid investment minimum and illiquid investment limit, each of which we believe will play an important role in fund liquidity risk management, as discussed in detail below. We also believe this classification system maintains the benefits of a spectrum-based liquidity analysis while responding to concerns about the burden and level of precision implied by the proposed approach.

While we agree that the suggested "principles-based" alternative approach would have benefits in terms of flexibility and funds' ability to leverage their existing procedures for assessing portfolio liquidity,²⁹² this approach would not provide a uniform methodology for funds' liquidity assessment procedures. It thus would not meaningfully advance our goal of

²⁹⁰ See, e.g., BlackRock Comment Letter; MFS Comment Letter; Nuveen Comment Letter; Comment Letter of Systemic Risk Council (Jan. 13, 2016) ("SRC Comment Letter").

²⁹¹ See Proposing Release, *supra* footnote 9, at section III.B.

²⁹² See, e.g., *supra* footnote 288; see also section IV.C.

establishing a foundation for reasonably comparable reporting to the Commission and disclosure to the public about funds’ portfolio liquidity.²⁹³ In particular, this approach would not permit detailed reporting about funds’ portfolio investments’ liquidity in a structured data format, as with reports on Form N-PORT, and thus would not provide an efficient basis for the Commission and its staff to monitor funds’ portfolio liquidity and liquidity risk.

We likewise believe the third alternative classification system, based on liquidity characteristics of different asset classes—as opposed to a days-to-cash framework—may not provide clear distinctions between each liquidity category without the Commission assigning specific asset classes to each classification category. Given the size of the fund industry and the wide variety and types of asset classes held by funds, we believe that it would be impractical for the Commission or its staff to attempt to prescriptively categorize every asset class by liquidity. Further, the classification requirement is designed to provide information regarding the liquidity of portfolio investments under *current market conditions*. We are concerned that a classification system by which the Commission assigns specific asset classes to specific liquidity categories would not be sufficiently flexible to account for the impact changing market conditions may have on the liquidity of fund investments.

Relatedly, some commenters suggested an alternative classification system could be based on notions of liquidity other than “days-to-cash,” including, in whole or in part, on the fraction of average daily trading volume that each position size corresponds to, the expected behavior of bid-ask spreads in a given asset, or more qualitative liquidity buckets (*e.g.* “converted to cash quickly under most circumstances”).²⁹⁴ Other commenters suggested that all

²⁹³ See *infra* section III.C.6.

²⁹⁴ See, *e.g.*, AFR Comment Letter; BlackRock Comment Letter; SRC Comment Letter.

of the classification categories be defined based on a days-to-cash or days-to-trade determination,²⁹⁵ while some recommended that only certain of the categories (generally, the relatively more liquid categories) be defined based on a days-to-cash or days-to-trade determination.²⁹⁶ After considering comments, we have chosen to adopt a classification system that most closely resembles the second alternative raised by commenters and includes days-to-cash determinations for the more liquid categories. As noted below, some of the more specific criteria suggested by commenters in place of days-to-cash may not be appropriate for all asset classes, while more qualitative criteria make it more difficult to compare classifications across funds relative to the days-to-cash approach in the rule.²⁹⁷

1. *Primary Elements of Classification Framework*

a. Consolidation of Proposed Classification Categories

Similar to the proposed classification requirement, the final classification requirement is generally based on a framework that would require a fund to determine the number of days in which each portfolio investment is convertible to cash. However, the final classification framework reduces the number of classification categories from six (as proposed) to four. In addition, a fund may classify portfolio investments based on asset class under the final classification requirement, so long as the fund or its adviser does not have information about any market, trading, or investment-specific considerations that are reasonably expected to significantly affect the liquidity characteristics of an investment and that would require a different classification for that investment. When we proposed the rule 22e-4 classification

²⁹⁵ AFR Comment Letter; Cohen & Steers Comment Letter; PIMCO Comment Letter; Charles Schwab Comment Letter.

²⁹⁶ Oppenheimer Comment Letter; SIFMA Comment Letter I; T. Rowe Comment Letter.

²⁹⁷ See *infra* section IV.C.1.

requirement, we noted that the framework was meant to promote a more nuanced approach than a classification requirement under which a fund would simply designate assets as liquid or illiquid.²⁹⁸ The proposed approach also was meant to provide the basis for detailed reporting and disclosure about the liquidity of funds' portfolio positions in a structured data format, as the six liquidity categories described above would be incorporated into the fund's portfolio holdings reported on proposed Form N-PORT.²⁹⁹

Multiple commenters expressed concerns about the proposed six-category classification framework. Many argued that the proposed classification method would require funds to make overly subjective projections about asset liquidity because predicting the time to liquidate a position for cash at a given price—particularly well into the future—is limited by required assumptions and market data availability, even for sophisticated asset managers.³⁰⁰ They stated that making relatively subjective liquidity determinations would render liquidity assessments inconsistent across funds, and any appearance of objectivity and comparability among funds' liquidity assessments thus would be false.³⁰¹ Relatedly, commenters also maintained that the proposed liquidity classification categories were overly granular and therefore could present a false appearance of precision about portfolio assets' liquidity.³⁰² For example, commenters argued that determining whether an asset can be converted to cash in 15 calendar days versus 16

²⁹⁸ See Proposing Release, *supra* footnote 9, at n.174 and accompanying and following text.

²⁹⁹ See *id.*

³⁰⁰ See, e.g., Comment Letter of Michael Aguilar, *et al.* (Jan. 12, 2016) (“Aguilar Comment Letter”); Credit Suisse Comment Letter; Comment Letter of J.P. Morgan Asset Management (Jan. 13, 2016) (“J.P. Morgan Comment Letter”); Voya Comment Letter.

³⁰¹ See, e.g., AIMA Comment Letter; CRMC Comment Letter; T. Rowe Comment Letter; Vanguard Comment Letter.

³⁰² See, e.g., Cohen & Steers Comment Letter; MFS Comment Letter; Nuveen Comment Letter; SIFMA Comment Letter I.

calendar days (that is, distinguishing between the fourth and fifth proposed classification categories) cannot realistically be known or predicted with accuracy.³⁰³ Some commenters advocated reducing the number of classification categories³⁰⁴ and expressed concern that the proposal would entail overly subjective classification analysis, which would give funds too much discretion to determine which assets are relatively liquid and thus make enforcement difficult and hinder meaningful risk mitigation.³⁰⁵ Finally, commenters also predicted that the complexity of analyses inherent in the proposed six-category classification framework, and related operational burdens, could cause many funds to either shift their classification obligations to third-party analysts entirely, or to rely heavily on data provided by third-party vendors to help simplify funds' own classification analyses.³⁰⁶

After considering these comments, we agree that the level of precision implied by the proposed six-category classification system could have unintended negative consequences. We also agree that the six liquidity classification categories that we proposed could lead to varying liquidity assessments and could give rise to an appearance of a level of precision about liquidity determinations that may not be achievable for some funds or asset classes. However, we continue to believe that a classification approach that involves funds evaluating investments' liquidity across a liquidity spectrum (as opposed to making a binary determination of whether an investment is liquid or illiquid) provides a basis for more meaningful reporting and disclosure

³⁰³ See, e.g., Credit Suisse Comment Letter.

³⁰⁴ See AFR Comment Letter; see also Better Markets Comment Letter (expressing concern about the complexity of the proposed classification requirement).

³⁰⁵ See Better Markets Comment Letter; SRC Comment Letter.

³⁰⁶ See, e.g., FSR Comment Letter; Comment Letter of Brian Reid, Chief Economist, Investment Company Institute (Jan. 13, 2016) ("ICI Comment Letter II"); Charles Schwab Comment Letter; Wells Fargo Comment Letter.

about funds' portfolio liquidity. Our opinion corresponds with many commenters' views that there are significant benefits associated with evaluating portfolio assets' liquidity across a spectrum.³⁰⁷

We believe that condensing the six proposed categories into four categories should decrease the variability in funds' liquidity assessments, since funds will not be required to make liquidity distinctions that are as detailed as would have been required under the proposal. The adopted categories also should reduce inconsistency in funds' liquidity assessments because the new categories do not include time periods in the least-liquid categories that are as granular or projected as far in the future as under the proposal. Furthermore, we believe that the adopted categories could decrease variability in some funds' liquidity assessments because we understand that the four adopted categories may correspond more closely than the proposed categories with classification methods and categories that some funds currently use in evaluating their portfolio liquidity.³⁰⁸ For example, the time frames referenced in the moderately liquid, less liquid, and illiquid classification categories are tied to the seven-calendar-day period in which funds are required to pay redeeming shareholders under section 22(e) of the Investment Company Act. We understand through staff outreach conducted prior to the proposal that certain funds already classify their portfolios across a number of liquidity categories, taking into account days-to-cash determinations and focusing on assets that can be used to meet redemptions in the short- and medium-term.³⁰⁹ Certain commenters likewise acknowledged that some asset managers may currently classify portfolio positions with categories that take days-to-cash or days-to-trade

³⁰⁷ See, e.g., CPMC Comment Letter; HSBC Comment Letter; J.P. Morgan Comment Letter; Comment Letter of MSCI (Jan. 13, 2016) ("MSCI Comment Letter").

³⁰⁸ See *infra* text accompanying footnotes 366, 375, 383.

³⁰⁹ See Proposing Release, *supra* footnote 9, at paragraph accompanying n. 183.

determinations into account, although not at the level of detail suggested by the proposal or for all classes of portfolio assets.³¹⁰

We recognize that, although we are providing a uniform classification framework, different funds may still classify the liquidity of similar investments differently, based on the facts and circumstances informing their analyses. This simply reflects the fact that different funds likely have different views on liquidity based on considerations such as their assessment of various market, trading, and investment-specific factors, and the size of their position in a particular investment. We acknowledge that liquidity can be difficult to estimate and that there is no agreed-upon measure of liquidity for all asset classes.³¹¹ Nevertheless, we believe the reporting of the liquidity classification information to us, and aggregated information to the public, will provide important information about fund liquidity.

b. Market, Trading, and Investment-Specific Considerations

Rule 22e-4 as adopted today requires a fund to take into account “relevant market, trading, and investment-specific considerations” in classifying and reviewing its portfolio investments’ liquidity.³¹² Rule 22e-4 as proposed did not include this requirement but instead included an enumerated list of nine separate factors that a fund would be specifically required to consider, as applicable, in classifying and reviewing the liquidity of its portfolio assets.³¹³ The

³¹⁰ See, e.g., HSBC Comment Letter; MFS Comment Letter; Nuveen Comment Letter; Wellington Comment Letter.

³¹¹ Indeed our recognition of these facts is part of what has lead us to adopt requirements that the more detailed liquidity classification of each individual portfolio investment be reported to us confidentially, with only the aggregated fund liquidity profile reported publicly, as discussed in section III.C.6 below.

³¹² See rule 22e-4(b)(1)(ii).

³¹³ Rule 22e-4 as proposed would have required a fund to take into account the following nine factors, to the extent applicable, when classifying the liquidity of each portfolio position in a particular asset: (1) existence of an active market for the asset, including whether the asset is listed on an exchange, as well as the number, diversity, and quality of market participants; (2) frequency of trades or quotes for the asset and average daily trading volume of the asset (regardless of whether the asset is a security traded on an

Proposing Release requested comment generally on whether the Commission should codify the proposed list of nine liquidity classification factors. While one commenter agreed that the factors should be codified,³¹⁴ most opposed codification and stated that funds should be permitted, but not required, to consider the factors.³¹⁵ Commenters stated that codifying the proposed factors would mandate a classification process that would be overly burdensome on funds' resources³¹⁶ and could limit portfolio managers' ability to rely on industry expertise in evaluating portfolio assets' liquidity.³¹⁷ One commenter specifically expressed concern that "the scope and complexity of the required analysis may excessively burden fund boards of directors and may actually act to distract fund managers and directors from the assessment of liquidity and redemption risk, which we view as the more important analysis."³¹⁸ Commenters also argued that a codified list of liquidity assessment factors could create a presumption that a fund must consider each factor in evaluating each portfolio holding, even if certain factors would not be useful or relevant to evaluating certain portfolio assets' liquidity.³¹⁹ Some commenters also

exchange); (3) volatility of trading prices for the asset; (4) bid-ask spreads for the asset; (5) whether the asset has a relatively standardized and simple structure; (6) for fixed income securities, maturity and date of issue; (7) restrictions on trading of the asset and limitations on transfer of the asset; (8) the size of the fund's position in the asset relative to the asset's average daily trading volume and, as applicable, the number of units of the asset outstanding; and (9) relationship of the asset to another portfolio asset. See proposed rule 22e-4(b)(2)(ii). These proposed factors are discussed in more detail in *infra* section III.C.4.

³¹⁴ See, e.g., CRMC Comment Letter.

³¹⁵ See, e.g., AFR Comment Letter; Invesco Comment Letter; J.P. Morgan Comment Letter; Vanguard Comment Letter.

³¹⁶ See, e.g., CFA Comment Letter; LSTA Comment Letter; Oppenheimer Comment Letter.

³¹⁷ See, e.g., Federated Comment Letter; Charles Schwab Comment Letter.

³¹⁸ See AFR Comment Letter.

³¹⁹ See, e.g., ICI Comment Letter I ("We are concerned that [the proposed factors'] inclusion in the rule could create a presumption that funds consider each factor in evaluating each portfolio holding . . ."); Oppenheimer Comment Letter ("As an example, a fund that invests solely in equity securities of large capitalization issuers that are traded on U.S. exchanges might reasonably determine that the frequency of trades in those equity securities and their average daily trading volumes are sufficient factors to determine their liquidity, and that consideration of factors such as bid-ask spread and volatility of trading prices are

stated that a codified list of factors could lead funds to place undue reliance on third-party data vendors,³²⁰ and such reliance could result in these vendors being viewed as “rating agencies” for liquidity, which could lead to potential systemic risk issues.³²¹ In addition, they expressed more granular concerns about certain of the proposed factors, which are discussed in detail in section III.C.4 below.

After considering commenters’ suggestions and concerns, we are not including the classification factors in the rule as proposed because we are concerned that including this list in rule 22e-4 could lead funds to focus too heavily on evaluating certain factors that may not be particularly relevant to the liquidity of a specific fund’s portfolio investments, the evaluation of which may not help produce meaningful outcomes in terms of effective classification. This could operate to the detriment of efficient and appropriate liquidity assessments that focus on the liquidity characteristics most directly affecting a particular asset class or investment.

We are instead adopting a principles-based requirement that a fund take into account relevant market, trading, and investment-specific considerations in classifying its portfolio investments. We understand based on staff outreach that it is common for some funds, in assessing the liquidity of their portfolio investments, to look only at basic structural characteristics of an investment (such as asset class or restrictions on transfer) and not to supplement this analysis with market information or other potentially relevant factors.³²² This

not useful or informative in a liquidity assessment. However, because these securities have observable bid-ask spreads and volatility, the fund would nonetheless be required to obtain and consider such data.”).

³²⁰ See, e.g., Dechert Comment Letter; Dodge & Cox Comment Letter; Comment Letter of the Mutual Fund Directors Fund (“MFDF Comment Letter”); T. Rowe Comment Letter.

³²¹ See, e.g., Federated Comment Letter; ICI Comment Letter II; MFDF Comment Letter; SIFMA Comment Letter I.

³²² See, e.g., *infra* section III.E.

could lead to circumstances in which a fund's liquidity classifications do not reflect a fund's actual ability to sell its portfolio investments without significant dilution to meet redemptions within a given time period, or do not otherwise result in an accurate picture of a fund's liquidity profile. Thus, we believe that the classification requirement must require funds to evaluate relevant considerations in making liquidity determinations. We believe the requirement to take into account relevant market, trading, and investment-specific considerations achieves this goal and is broad and flexible enough to be relevant for all investment strategies and fund risk profiles. In addition, we continue to believe that the proposed classification factors could help funds in evaluating relevant market, trading, and investment-specific considerations, and thus we have included guidance on many of these areas in section III.C.4 of this Release that may be relevant to a fund's assessment of portfolio investments' liquidity characteristics.

We understand that some third-party service providers currently provide data and analyses assessing the relative liquidity of a fund's portfolio investments, and that many of these service providers assess certain market, trading, and investment-specific considerations in doing so. We believe that a fund could appropriately use this type of data to inform or supplement its own consideration of the liquidity of an asset class or investment. However, a fund would not be required to do so.³²³ Also, we generally believe that a fund should consider having the person(s) at the fund or investment adviser designated to administer the fund's liquidity risk management program review the quality of any data received from third parties, as well as the particular methodologies used and metrics analyzed by third parties, to determine whether this data would effectively inform or supplement the fund's consideration of its portfolio holdings' liquidity

³²³

See Nuveen Comment Letter (requesting that the Commission confirm that data from third-party vendors may be used in a fund's assessment of liquidity, but that funds are not required to use data provided by third-party vendors in classifying the liquidity of their portfolio assets).

characteristics. This review could include an assessment of whether modifications to an “off-the-shelf” product are necessary to accurately reflect the liquidity characteristics of the fund’s portfolio holdings. As discussed above, certain commenters expressed concern that the proposed six-category classification framework, including the proposed codification of certain factors that a fund would be required to consider (as applicable) in classifying its portfolio holdings, would place undue reliance on data vendors and analysts, and that such reliance could produce potential systemic risk issues.³²⁴ We believe that our decisions to simplify the proposed classification framework and not to include the proposed classification factors as part of rule 22e-4, together with the guidance on the appropriate use of data vendors discussed in this paragraph, should largely mitigate these concerns.

c. Value Impact Standard

As discussed further below, in a modification to the proposed standard, each of the liquidity categories included in the classification requirement we are adopting requires a fund to determine the time period in which an investment would be reasonably expected to be converted to cash (or in some cases, sold or disposed of) in current market conditions without the conversion to cash (or in some cases, sale or disposition) significantly changing the market value of the investment.³²⁵ This modification highlights that the standard does not require a fund to actually re-value or re-price the investment for classification purposes, nor does the standard require the fund to incorporate general market movements in liquidity determinations or estimate market impact to a precise degree.

Many commenters opposed the value impact standard incorporated in the proposed

³²⁴ See *supra* footnotes 320-321 and accompanying text.

³²⁵ See rule 22e-4(a)(6); 22e-4(a)(8); 22e-4(a)(10); and 22e-4(a)(12). We note the term “market value” as used in the value impact standard includes the value of investments that are fair valued.

liquidity classification requirement—that the asset was convertible to cash “at a price that does not materially affect the value of that asset immediately prior to sale.”³²⁶ Many suggested that the value impact component of the proposed standard was inappropriate for liquidity analyses³²⁷ and should be eliminated from the classification requirement.³²⁸ Commenters particularly were concerned that a “materiality” standard could be difficult and impractical to apply because they argued any sale of an asset could impact its market value to some degree.³²⁹ They stated that it is difficult to separate and quantify the market impact of a fund’s trades in a particular asset from other reasons that an asset’s price could move (such as market events), particularly in dynamic markets, and that projections of future market impact are difficult to make.³³⁰ Furthermore, they stated that without further guidance from the Commission funds may not know what “material” should mean in the context of the proposed classification requirement.³³¹ Some commenters specifically noted that the proposed value impact standard differed from the value impact standard incorporated in the Commission’s guidelines limiting funds’ illiquid asset holdings, which is based on whether a fund could sell an asset at approximately the value at which the fund

³²⁶ See, e.g., BlackRock Comment Letter; MFS Comment Letter; Comment Letter of Milliman Financial Risk Management LLC (Jan. 7, 2016) (“Milliman Comment Letter”); Vanguard Comment Letter.

³²⁷ See, e.g., Eaton Vance Comment Letter I; Fidelity Comment Letter; PIMCO Comment Letter; Vanguard Comment Letter.

³²⁸ See, e.g., CRMC Comment Letter; J.P. Morgan Comment Letter (recognizing, however, the concern underlying the proposed standard—“namely that if funds sell assets at ‘fire sale’ prices there can be negative price pressure on those assets as well as correlated assets, which could transmit stress to other funds or portions of the market”); PIMCO Comment Letter; Vanguard Comment Letter.

³²⁹ See, e.g., CRMC Comment Letter; IDC Comment Letter; PIMCO Comment Letter; T. Rowe Comment Letter.

³³⁰ See, e.g., BlackRock Comment Letter; CRMC Comment Letter; MFS Comment Letter; Voya Comment Letter.

³³¹ See, e.g., Aguilar Comment Letter; Markit Comment Letter; Milliman Comment Letter; SIFMA Comment Letter I.

has valued it, and that conflicting standards could raise confusion and operational difficulties.³³²

Finally, several commenters argued that the inclusion of the value impact standard in the proposed classification categories could give fund shareholders the false impression that the fund guarantees a protected NAV.³³³

As we noted when discussing the definition of “liquidity risk,” we continue to believe that incorporating a value impact analysis into liquidity considerations is appropriate because it indicates that liquidity risk for a fund captures not just the risk of being unable to meet redemption requests, but also the risk that a fund could only meet redemption requests in a manner that significantly dilutes the funds’ non-redeeming shareholders. Separately, as we noted above, the inclusion of some consideration of value impact is common in regulators’ characterization of portfolio liquidity and fund liquidity risk.³³⁴ Because we believe that the liquidity of portfolio investments is a significant component of a fund’s overall liquidity risk,³³⁵ we continue to believe that the inclusion of a value impact standard in the rule 22e-4 classification categories is appropriate. We also understand that many current trade order management systems estimate value impacts that may result from trades, which may assist funds in making these estimates.

Nevertheless, we have determined that certain modifications to the proposed value impact standard are warranted to address certain concerns raised by commenters. First, we recognize

³³² See, e.g., Interactive Data Comment Letter; NYC Bar Comment Letter; *see also infra* text accompanying footnotes 341-342 (discussing the harmonization of the value impact standard incorporated in the definition of “illiquid asset” that we are adopting with the standard incorporated in the rule 22e-4 classification requirement generally).

³³³ See, e.g., BlackRock Comment Letter; ICI Comment Letter III; PIMCO Comment Letter; SIFMA Comment Letter I.

³³⁴ See *supra* footnote 173.

³³⁵ See rule 22e-4(b)(1)(i)(A) (requiring a fund to consider its portfolio investments’ liquidity in assessing its liquidity risk).

that in complying with the value impact standard, funds will be making assessments about the trading behavior of certain asset classes (and individual investments, for investments that need to be treated on an exception basis in the final classification framework we are adopting today). Accordingly, funds should be able to rely on their reasonable expectations at the time they make these assessments, and we do not expect them to estimate to a precise degree the market impact of trading that investment or the value of that investment as the trades occur.³³⁶ As a result, we have modified the final rule to provide that an investment's classification be based a fund's *reasonable expectations* in *current* market conditions (emphasis added).³³⁷ We also expect that the consolidation of the liquidity classification categories into ones that only require days-to-cash projections out to seven days should also mitigate commenters' concerns about the uncertainty involved in these value impact projections because the consolidated categories do not involve projections as far into the future as the proposed categories.

We also changed the standard to capture only value impacts that *significantly change* the investment's market value, rather than the proposed standard that focused on *materially affecting* the value of the asset immediately prior to sale (emphasis added). We believe that funds will be less likely to interpret *significant changes* in market value as capturing very small movements in price, and thus this change should address commenters' concern that the proposal would create a value impact standard that is impractical to apply because any sale of an investment could affect

³³⁶ In the proposal, we noted that the proposed term "immediately prior to sale" was not meant to require a fund to anticipate and determine in advance the precise current value of an asset at the moment before the fund would sell the asset. We believe that the alterations to the final value impact standard reinforce this intent. See Proposing Release, *supra* footnote 9, at text following n.170

³³⁷ A fund's reasonable expectations pertain to each aspect of the definition of highly liquid investments, moderately liquid investments, less liquid investments, and illiquid investments – *i.e.*, a fund may rely on its reasonable expectations as to the fund's ability to convert the investment to cash (or, in some cases, sell or dispose of the investment) in current market conditions in a certain number of days and a fund may rely on its reasonable expectations as to whether the conversion to cash (or, in some cases, sale or disposition) of the investment can be done without significantly changing the market value of the investment.

its market value to some degree. We also believe that a fund’s classification policies and procedures should address what it would consider to be a significant change in market value. Common alternatives that commenters suggested in place of the proposed value impact standard included an “assuming no fire sale discounting” (or similar) standard³³⁸ or various quantitative materiality standards.³³⁹ We believe a standard based on fire sale discounting would be too high of a value impact threshold, whereas suggested quantitative standards would be too precise and require burdensome calculations. However, we believe that the final value impact standard of “without the conversion to cash (or in some cases, sale or disposition) *significantly changing* the market value” appropriately balances our desire to capture the risk of dilution in cases of inadequate liquidity, while not also requiring funds to account for every possible value movement.

Finally, we note that the final value impact standard does not require the fund to incorporate general market movements in liquidity determinations. We recognize that there can be many reasons for the market value of a particular investment to fluctuate, separate from the fund’s transactions in those investments. We do not intend for the value impact standard to capture movements in an investment’s value due to market events. For this reason, we are not adopting a value impact standard based on the fund’s most recent valuation of that investment as suggested by some commenters.³⁴⁰ This type of standard may have required a fund to compare the investment’s traded price with the fund’s prior day valuation of the investment – such a

³³⁸ See, e.g., SIFMA Comment Letter I; T. Rowe Comment Letter; see also AFR Comment Letter (suggesting standard should be that an asset could be sold at a price that does not create harm to fund shareholders due to the fund being forced to accept disadvantageous terms of sale in order to find a buyer).

³³⁹ See, e.g., Interactive Data Comment Letter (asset could be sold at a price that has a less than 5% impact on the value of that asset; asset could be sold at a price that does not create a 1 penny or more impact on the fund’s NAV; fund could use volatility measures to determine security-specific materiality thresholds).

³⁴⁰ IDC Comment Letter; NYC Bar Comment Letter.

comparison likely would reflect the effects of general market movements. The value impact standard we are adopting today only requires a fund to consider the market value impact of a hypothetical sale of an investment.

We recognize that the value impact standard incorporated in the “illiquid investment” definition is slightly different from the standard used in the definition of “illiquid asset” under the Commission’s current guidelines, as the latter is based on whether a fund could sell an asset at “approximately the value at which the fund has valued the investment.”³⁴¹ We believe the revised value impact standard in the illiquid investment definition is preferable both because it prevents confusion by harmonizing the value impact standards within the classification framework and because, as just discussed, it removes any confusion that the value impact standard incorporates general market movements that would occur between when a fund strikes its NAV and when it trades the investment.³⁴²

With respect to commenters’ concerns that the inclusion of a value impact standard in the rule 22e-4 classification categories could give fund shareholders the false impression that the fund guarantees a protected NAV, we do not believe that the final rule’s classification categories imply a protected NAV. As noted in our discussion of the rule 22e-4 definition of “liquidity risk,” we believe that funds’ narrative risk disclosure in their registration statements and other shareholder communications generally should make clear those risks that could adversely affect the fund’s NAV, yield, and total return, including liquidity-related risks. All open-end funds are required to disclose that loss of money is a risk of investing in the fund.³⁴³

³⁴¹ See *supra* section II.B.2

³⁴² See also *infra* section III.C.2.d.

³⁴³ See Item 4(b)(1)(i) of Form N-1A.

d. Consideration of Current Market Conditions

The definition of each liquidity category in the classification requirement we are adopting today specifically requires a fund to consider the time period in which an investment can be converted to cash (or, in some cases, sold or disposed of) in current market conditions.³⁴⁴ The “current market conditions” specification is a change from the proposed classification requirement, which did not explicitly require that a fund consider current market conditions in making liquidity classification determinations.³⁴⁵ The proposal, however, did require a fund to “engage in an ongoing review” of the liquidity of each of its portfolio positions.³⁴⁶ The Commission suggested in the Proposing Release that a fund’s policies and procedures for reviewing the liquidity of its portfolio positions generally should include procedures for assessing market-wide developments, as well as security- and asset-class-specific developments that could demonstrate a need to change the liquidity classification of a portfolio position.³⁴⁷ The proposal’s ongoing review standard (as opposed to the at-least-monthly review standard we are adopting today³⁴⁸) thus would have implicitly required that a fund’s liquidity determinations reflect current market conditions.

Multiple commenters requested guidance and provided suggestions regarding the market conditions a fund should consider in classifying its portfolio assets’ liquidity. Some commenters

³⁴⁴ See rule 22e-4(a)(6); 22e-4(a)(8); 22e-4(a)(10); and 22e-4(a)(12). See also *infra* section III.C.5. (discussing the requirement to review liquidity classifications at least monthly and more frequently if changes in relevant market, trading, and investment-specific considerations are reasonably expected to materially affect one or more of a fund’s classifications of investments) and section III.E. (discussing the prohibition on acquiring illiquid investments if, immediately after acquisition, the fund would have invested more than 15% of its net assets in illiquid investments that are assets).

³⁴⁵ See proposed rule 22e-4(b)(2)(i).

³⁴⁶ *Id.*

³⁴⁷ See Proposing Release, *supra* footnote 9, at text following n.253.

³⁴⁸ See section III.C.5.

requested clarity on whether a fund would be required to classify the liquidity of its portfolio assets based on an assessment of normal market conditions or stressed market conditions.³⁴⁹ One commenter suggested that the Commission provide additional guidance on how to assess the value impact that a fund's sale of portfolio assets could have under future stressed market conditions.³⁵⁰ Additionally, one commenter suggested that any final liquidity classification framework should incorporate an assessment of reasonably foreseeable stressed conditions instead of current market conditions.³⁵¹

In addition to the commenters who requested clarification or made suggestions about the market conditions referenced in the proposed liquidity classification framework, multiple commenters suggested alternative classification schemes that would more explicitly define liquidity categories based on distinctions in how a particular asset would trade under normal versus stressed market conditions.³⁵² One commenter suggested that this alternative method of defining liquidity classification categories would reflect directly the extent to which assets' liquidity can dynamically change as market conditions evolve.³⁵³

After considering commenters' suggestions and concerns, we are adopting liquidity classification categories that reflect current market conditions. We appreciate commenters' concerns that liquidity classifications based on current market conditions capture only a moment-in-time picture of a fund's portfolio liquidity, which may not accurately reflect liquidity

³⁴⁹ See, e.g., AFR Comment Letter; HSBC Comment Letter.

³⁵⁰ See ICI Comment Letter II.

³⁵¹ See AFR Comment Letter.

³⁵² See, e.g., BlackRock Comment Letter; J.P. Morgan Comment Letter; SIFMA Comment Letter III; T. Rowe Comment Letter.

³⁵³ See BlackRock Comment Letter. This commenter also noted that "the time needed to liquidate a position at a given price in a normal market environment will not be reflective of the market impact incurred when liquidating positions during stressed markets."

in changing market conditions. We also appreciate commenters' concerns that investments that are relatively liquid under normal conditions may exhibit significantly reduced liquidity during times of stress.³⁵⁴ However, we are concerned that requiring a fund to predict how an investment *may* trade in stressed market conditions would introduce an additional layer of subjectivity into the classification process. Specifically, we are concerned that funds would likely assume varying levels of stress when classifying the liquidity of their portfolio investments. We believe that liquidity categories requiring consideration of stressed conditions thus could impede our goals of promoting consistency in funds' processes for assessing portfolio investments' liquidity and enhancing the data quality of funds' liquidity-related reporting and disclosure. Conversely, we believe the requirement to assess current market conditions would increase consistency among funds' liquidity determinations by limiting the number of variables informing funds' classification determinations. Although we understand that the adopted classification scheme may not produce absolute consistency in how funds classify the liquidity of their portfolio investments as funds' assumptions and individual facts and circumstances may differ,³⁵⁵ classifying based on current market conditions will result in all funds' classifications at a given time reflecting the same market conditions.

We believe that it would be informative to Commission staff to understand how the same set of market conditions could disparately affect different funds' assessments of their liquidity and that of different asset classes. Also, we note that, to the extent that the markets in which funds' portfolio investments trade are currently stressed, consideration of current market

³⁵⁴ See generally MFS Comment Letter; NYC Bar Comment Letter.

³⁵⁵ As discussed above, we recognize that funds are likely to make different assumptions in classifying the liquidity of their portfolio investments depending on the facts and circumstances relating to funds and their trading practices. See *supra* paragraph accompanying footnote 311.

conditions would de facto reflect consideration of stressed market conditions. Therefore, the requirement to consider current market conditions, along with the requirement for funds to review the liquidity of their portfolio investments at least monthly³⁵⁶ and the Form N-PORT reporting requirements concerning funds' liquidity classifications,³⁵⁷ will provide data that will help the staff evaluate the role of changing market conditions on funds' liquidity by comparing liquidity data across different sets of current market conditions over time. We believe this liquidity data would be more useful than data based on projected stressed market conditions, because it would reflect funds' assessments in light of actual, not anticipated, market stresses.

Finally, we note that while we are not incorporating a requirement to evaluate potential future stressed market conditions in the portfolio investment liquidity *classification* requirement, we continue to believe that it is appropriate to require funds to consider reasonably foreseeable stressed conditions as part of the liquidity risk *assessment* and *management* requirements.³⁵⁸ We believe that funds' liquidity risk assessment should inform the extent to which funds are prepared to manage their liquidity under both normal and reasonably foreseeable stressed conditions—particularly because, for many asset classes, liquidity is adversely affected by market stress and funds need to have a liquidity risk management program that is resilient under all market conditions. Thus, as discussed throughout this Release, a fund must establish liquidity risk management policies and procedures appropriate in light of both normal and reasonably foreseeable stressed market conditions.

³⁵⁶ See *infra* section III.C.5.

³⁵⁷ See *infra* section III.C.6.b.

³⁵⁸ See *supra* section III.B. In discussing funds' liquidity risk assessment obligations under rule 22e-4, we note above that if a fund conducts stress testing to determine whether it has sufficient liquid investments to cover different levels of redemptions, a fund should incorporate the results of this stress testing into its liquidity risk assessment. See *supra* footnote 196.

2. *Discussion of Specific Classification Categories*

a. Highly Liquid Investments

The classification requirement we are adopting today requires a fund to identify its “highly liquid investments,” that is, cash held by a fund and investments that the fund reasonably expects to be convertible to cash in current market conditions in three business days or less without the conversion to cash significantly changing the market value of the investment. This category condenses the first two liquidity classification categories in the proposed classification requirement (assets convertible to cash within one business day, as well as two-to-three business days) to simplify the proposed classification framework. Multiple commenters who suggested simplified alternatives to the proposed approach suggested including a classification category based on portfolio assets’ convertibility to cash within three days.³⁵⁹ One such commenter suggested that “highly liquid assets” should include cash and any asset that can be converted to cash in the ordinary course of business within three business days.³⁶⁰ Additionally, another commenter agreed that, given current redemption practices, funds should assess how much liquidity they may need over a three-day period.³⁶¹

We continue to believe, as discussed in the Proposing Release, that it is important for funds to determine what percentage of their portfolio is convertible to cash—that is, available to meet redemptions—within the relatively short term. We understand that most funds typically pay redemption proceeds within a fairly short period (typically, one to three days) after receiving

³⁵⁹ See, e.g., Federated Comment Letter; Fidelity Comment Letter; SIFMA Comment Letter I; Vanguard Comment Letter.

³⁶⁰ See Vanguard Comment Letter.

³⁶¹ See MFDF Comment Letter (stating in the context of the proposed three-day liquid asset minimum, that “[g]iven current redemption practices in the industry, we agree with the Commission that funds should assess how much liquidity they may need, both in normal and stressed market conditions, over a three-day period to effectively meet anticipated redemption requests.”).

a shareholder's redemption request, even though a fund may disclose that it reserves the right to delay payment for up to seven calendar days, as permitted by section 22(e) of the Act.³⁶²

Likewise, funds may find it useful to identify portfolio investments that may be converted to cash quickly in order to meet unexpected or unusually high redemption requests, or to rebalance or otherwise adjust a portfolio's composition in all market conditions.

We also understand that funds often consider which portfolio investments can be sold and settled on a T+1 to T+3 basis when determining their very liquid investments.³⁶³ While such an analysis may be useful, our decision to define highly liquid investments to include any investment that the fund reasonably expects to be convertible into cash in current market conditions in three business days or less is founded in our belief that funds should understand what portion of their investments are convertible to cash in a short period of time taking into account current market conditions, not solely on which asset transactions can be settled in three days or less from the trade date. An investment that takes two days to sell but one day to settle, for example, would be convertible to cash in a short period of time. Conversely, an asset that may settle two days after trade date, but which is reasonably expected to take at least three days to trade, would not be available in a short period of time. Accordingly, we believe we have appropriately defined "highly liquid investments" under rule 22e-4 notwithstanding initiatives to shorten the standard settlement cycle for most broker-dealer transactions from T+3 to T+2.³⁶⁴

In addition, we emphasize that the highly liquid investment category (and the related highly liquid investment minimum) should not be interpreted as the Commission suggesting that

³⁶² See *supra* footnote 9 and accompanying text.

³⁶³ See *supra* footnote 309.

³⁶⁴ See *supra* footnote 9.

a fund should, as a matter of routine practice, meet redemptions first by selling its highly liquid investments. Rather, we believe part of a thorough understanding of a fund's liquidity profile includes an understanding of the nature and level of the fund's highly liquid holdings.³⁶⁵ As noted above, we understand that funds currently place significance on understanding the portion of their portfolio representing very liquid investments, as it is not unusual for funds to determine the percentage of their portfolio that can be liquidated in the short-to-medium term.³⁶⁶ We anticipate that a fund could determine that a broad variety of investments within different asset classes could be classified as highly liquid investments, depending on facts and circumstances.³⁶⁷

We note that, as with the proposal, the highly liquid investment category measures the time period in which an investment could be converted to cash in business days, as opposed to the other liquidity categories, which use calendar days. Some commenters suggested that, instead of the references to both business days and calendar days, the categories that the Commission adopts should only reference business days.³⁶⁸ One commenter stated that basing all classification categories on business days instead of calendar days would be “preferable from a consistency standpoint, and reasonable given the lack of expectations around receiving cash flows on non-business days.”³⁶⁹ Other commenters suggested alternative liquidity classification categories that, like the proposed categories, would reference both business days and calendar

³⁶⁵ See *infra* footnote 374 and accompanying text (discussing the use of moderately liquid assets to meet redemption requests).

³⁶⁶ See *supra* footnote 363 and accompanying text.

³⁶⁷ See *infra* section III.D.

³⁶⁸ See, e.g., Interactive Data Comment Letter; Nuveen Comment Letter.

³⁶⁹ See Interactive Data Comment Letter; see also ICI Comment Letter I; T. Rowe Comment Letter (noting that the proposed classification categories could require a fund to make difficult distinctions in determining which assets can be converted to cash in three business days versus four calendar days). The note to rule 22e-4(b)(1)(ii) addresses situations where the period to convert an investment to cash depends on the calendar or business day convention. See *infra* footnotes 376 and accompanying text.

days.³⁷⁰

After considering these comments, we are continuing to reference business days in the highly liquid investment definition we are adopting, while referencing calendar days in the other liquidity classification categories. We appreciate commenters' concerns that classification categories that reference both business days and calendar days could add some complexity in the assumptions and models that funds may use in classifying the liquidity of their portfolio investments. However, as discussed below, we believe it is important to tie the time frames referenced in the moderately liquid, less liquid, and illiquid classification categories to the seven-calendar-day period in which funds are required to pay redeeming shareholders under section 22(e) of the Investment Company Act.³⁷¹ Although we could have referenced calendar days instead of business days in the highly liquid investment definition to help standardize the time periods referenced in all of the classification categories, we continue to reference business days in this classification category for several reasons. First, for short time periods, a calendar day standard could be unworkable and create absurd results if the time period were to encompass weekends or holidays, during which trading cannot be expected to occur. Second, many of the alternate classification categories that commenters suggested incorporated categories that referenced a three-business-day period,³⁷² and we understand from these comments and staff outreach that this is a workable (and, for some fund complexes, currently-used) period for a fund to consider in assessing the liquidity of its portfolio investments.³⁷³

³⁷⁰ See, e.g., Markit Comment Letter; PIMCO Comment Letter.

³⁷¹ See *infra* sections III.C.2.b-d.

³⁷² See, e.g., Fidelity Comment Letter; Invesco Comment Letter; T. Rowe Comment Letter; Vanguard Comment Letter.

³⁷³ We also note that rule 15c6-1 under the Exchange Act, which was adopted in 1993 and became effective in 1995, established three business days as the standard settlement period for securities trades effected by a

b. Moderately Liquid Investments

A fund also will be required to identify its “moderately liquid investments,” that is, those investments the fund reasonably expects to be convertible into cash in current market conditions in more than three calendar days, but in seven calendar days or less, without the conversion to cash significantly changing the market value of the investment. These investments are those that are not immediately or very quickly convertible to cash, but that nevertheless may be converted to cash in a time frame that would permit funds to pay redeeming shareholders within the seven-day period established by section 22(e) of the Investment Company Act. We expect that this classification category will be an important component of the Form N-PORT reporting obligations because it will provide the Commission with information regarding the portion of a fund’s portfolio that is not on the most liquid end of the spectrum, but still is sufficiently liquid to meet redemption requests within the statutory seven-day period without causing significant dilution. We also anticipate that the public will have an interest in gaining transparency into this information on an aggregate basis.³⁷⁴ Several commenters who suggested simplified alternatives to the proposed classification approach recommended including a classification category based on portfolio investments’ convertibility to cash within seven days.³⁷⁵

We understand that circumstances could arise in which the sale and settlement period for a particular portfolio position could be viewed as within three business days or four-to-seven calendar days. For example, if a sale were to occur on a Thursday and be settled on a Monday,

broker-dealer. Thus, we understand that many funds pay redemption proceeds within three business days after receiving a redemption request, because a broker or dealer will be involved in the redemption process. *See supra* footnote 32 and accompanying text. *See also supra* footnote 366.

³⁷⁴ *See infra* section III.C.6.c.

³⁷⁵ *See, e.g.*, Federated Comment Letter; Fidelity Comment Letter; PIMCO Comment Letter; Vanguard Comment Letter.

the sale and settlement period could be viewed either as within three business days or four calendar days. This situation could cause ambiguity for reporting purposes. Thus, rule 22e-4, similar to the proposed rule, includes a note stating that a fund should classify the portfolio position based on the shorter period (*i.e.*, as a highly liquid investment).³⁷⁶

c. Less Liquid Investments

Additionally, a fund will be required to identify its “less liquid investments,” that is, those investments that the fund reasonably expects to be able to sell or dispose of in current market conditions in seven calendar days or less without the sale or disposition significantly changing the market value of the investment, but where the sale or disposition is reasonably expected to settle in more than seven calendar days. Thus, the less liquid investments category focuses on investments whose sale cannot be settled quickly. For example, transactions in certain types of securities—such as certain foreign securities³⁷⁷ and U.S. bank loan participations³⁷⁸—have historically entailed settlement periods that are longer than standard

³⁷⁶ See note to rule 22e-4(b)(1)(ii); see also note to proposed rule 22e-4(b)(2)(i); see also *supra* footnote 369 (discussing comments that noted situations where the period to convert an asset to cash depends on the calendar or business day convention).

³⁷⁷ See, e.g., Comment Letter of the Global Foreign Exchange Division to the European Commission and the European Securities and Markets Authority re: Consistent Regulatory Treatment for Incidental Foreign Exchange (FX) Transactions Related to Foreign Securities Settlement—“FX Security Conversions” (Mar. 25, 2014), available at [www.gfma.org/Initiatives/Foreign-Exchange-\(FX\)/GFMA-FX-Division-Submits-Comments-to-the-HKMA-on-the-Treatment-of-Securities-Conversion-Transactions-under-the-Margin-and-Other-Risk-Mitigation-Standards](http://www.gfma.org/Initiatives/Foreign-Exchange-(FX)/GFMA-FX-Division-Submits-Comments-to-the-HKMA-on-the-Treatment-of-Securities-Conversion-Transactions-under-the-Margin-and-Other-Risk-Mitigation-Standards) (“Typically, the settlement cycle for most non-EUR denominated securities is trade date plus three days (‘T+3’). Accordingly, the bank custodian or broker-dealer would enter into a FX transaction on a T+3 basis as well. In some securities markets, for example in South Africa, the settlement cycle can take up to seven days (T+7).”).

³⁷⁸ See, e.g., BlackRock, *Who Owns the Assets? A Closer Look at Bank Loans, High Yield Bonds and Emerging Market Debt*, Viewpoint (Sept. 2014) (“Who Owns the Assets?”), available at <https://www.blackrock.com/corporate/en-fi/literature/whitepaper/viewpoint-closer-look-selected-asset-classes-sept2014.pdf>; Michael Mackenzie & Tracy Alloway, *Lengthy US loan settlements prompt liquidity fears*, Fin. Times (May 1, 2014) available at <http://www.ft.com/intl/cms/s/0/32181cb6-d096-11e3-9a81-00144feabdc0.html>; Comment Letter of OppenheimerFunds on the Notice Seeking Comment on Asset Management Products and Activities, Docket No. FSOC-2014-0001 (Mar. 25, 2015) (stating that “loans still take longer to settle than other securities. Median settlement times for buy-side loan sales are 12 days” and noting that an “important tool in managing settlement times is the establishment of a credit line

settlement periods in the broader securities markets. If a fund were to determine that securities within these asset classes, or other asset classes with longer-than-standard settlement periods, were able to be sold within seven calendar days, but could not be settled within this period, the fund should classify these securities as less liquid investments. As an example, certain foreign securities may be able to be sold in seven calendar days or less, but may be subject to capital controls that would limit the extent to which the foreign currency could be repatriated or converted to dollars within this time frame. Thus, these securities would be considered to be less liquid investments because they would be reasonably expected to settle in more than seven calendar days. We note that trades in certain investments, however, may take an extended period of time to settle.³⁷⁹ In the event of an extended settlement period, at some point, a fund may need to consider re-classifying such an investment as illiquid.³⁸⁰ We also note that if a fund holds a forward contract on a security, such as a forward in a transaction in the “To-Be-Announced” (“TBA”) market,³⁸¹ the convert to cash determination for that instrument may be based on the forward contract and not on the underlying securities to be received.³⁸²

The “less liquid investments” category, like the “moderately liquid investments” category

dedicated to bank loan funds.”). *See also* LSTA Comment Letter.

³⁷⁹ *See infra* footnote 416 and accompanying text.

³⁸⁰ *See* rule 22e-4(b)(1)(ii) (requiring review of portfolio classifications at least monthly, and more frequently, if changes in relevant market, trading, and investment-specific considerations are reasonably expected to materially affect one or more of its investments’ classifications).

³⁸¹ In the TBA market, lenders enter into forward contracts to sell agency mortgage-backed securities and agree to deliver such securities on a settlement date in the future. The specific agency mortgage-backed securities that will be delivered in the future may not yet be created at the time the forward contract is entered into. The purchaser will contract to acquire a specified dollar amount of mortgage-backed securities, which may be satisfied when the seller delivers one or more mortgage-backed securities pools at settlement. For a discussion of the TBA market, *see* Task Force on Mortgage-Backed Securities Disclosure, Staff Report: Enhancing Disclosure in the Mortgage-Backed Securities Markets (Jan. 2003), at section II.E.2, available at <http://www.sec.gov/news/studies/mortgagebacked.htm>.

³⁸² *See* ICI Comment Letter I (noting that the “TBA market is similar to the futures market, in which physically-settled futures contracts may trade continuously (*e.g.*, daily) but the underlying reference assets are delivered at a later date (*e.g.*, once every 3 months).”).

and the “illiquid investments” category, directly reflects the statutorily required seven-day period for meeting redemption requests. The “less liquid investments” category is meant to identify for the Commission and its staff, as well as investors and other potential users, the portion of a fund’s portfolio investments that may be available to meet redemption requests within seven days, but only to the extent that the fund addresses the lengthier settlement period associated with these investments. Because less liquid investments are those that may be sold, but not settled, within seven days, a fund generally could use less liquid investments to meet redemptions within seven days only if the fund obtained an additional source of financing (for example, a line of credit) to bridge the period until the sales would settle, or if the fund used its cash holdings to meet the redemptions while simultaneously selling the less liquid investment and then replenishing its cash holdings upon settlement.

Transparency regarding the portion of a fund’s portfolio held in less liquid investments also could demonstrate those investments that could be liquidated in order to meet redemptions that would occur more than a week in the future, if a fund were to enter into a period of extended redemptions that it anticipates would last for multiple days. Because an open-end fund has an obligation to meet redemption requests within seven days, we believe it is important for funds to identify those investments that could pose certain challenges in being used to meet redemption requests within that time period, for purposes of the fund’s own liquidity risk assessment and management,³⁸³ as well as to provide transparency into certain funds or strategies that could have relatively limited liquidity compared to peer funds.

d. Illiquid Investments

³⁸³ For example, a fund’s holdings of less liquid investments typically would be a relevant consideration when assessing whether its strategy is appropriate for an open-end fund and determining its highly liquid investment minimum. *See supra* section III.B; *see also infra* section III.D.2.

A fund also will be required to identify those investments that it considers to be “illiquid investments.” Rule 22e-4 as adopted today defines an illiquid investment as any investment that a fund reasonably expects cannot be sold or disposed of in current market conditions in seven calendar days or less without the sale or disposition significantly changing the market value of the investment. Like the “less liquid investments” and “moderately liquid investments” category, the “illiquid investments” category references the statutorily required seven-day period for meeting redemption requests. However, while the “less liquid investments” and “moderately liquid investments” categories are based on the time period in which investments are convertible to cash—that is, sold with the sale settled—the “illiquid investments” category only reflects the period for selling (or otherwise disposing of) an investment and does not also consider settlement timing.

Rule 22e-4 as proposed would have included a limit on funds’ ability to acquire “15% standard assets,” or any asset that may not be sold or disposed of in the ordinary course of business within seven calendar days at approximately the value ascribed to it by the fund.³⁸⁴ Under the proposal, 15% standard assets were not a category in the classification framework. In determining whether an asset was a 15% standard asset, a fund would not have been required to take into account any specific market or other factors, or assess position size as it could reflect market depth, in determining whether it could sell the asset within seven days without the specified value impact.³⁸⁵ The proposed limit was intended to be consistent with the Commission’s guidelines limiting funds’ holdings of illiquid assets to 15% of net assets³⁸⁶ and

³⁸⁴ See proposed rule 22e-4(b)(2)(iv)(D).

³⁸⁵ See Proposing Release, *supra* footnote 9, at text following n.355.

³⁸⁶ See *id.*, at section III.C.4.

most commenters supported the proposed 15% limit.³⁸⁷

We understand, however, that funds have engaged in a variety of practices in determining the illiquidity of investments. It has been our staff's experience that some of these practices are less robust than others. We believe that the definition of illiquid investments we are adopting today will provide a clear standard for determining the illiquidity of investments and will better ensure that all funds are determining the illiquidity of investments more consistently. We recognize, however, that as a result of this new definition, some funds may take into account relevant market, trading, and investment-specific considerations, as well as market depth, for the first time and therefore, as discussed below, some funds may determine that a greater percentage of holdings are illiquid.³⁸⁸

We note that some commenters suggested strengthening the current illiquid asset guidelines.³⁸⁹ Many commenters also suggested that these assets continue to be referred to as "illiquid assets" (not 15% standard assets) and be harmonized with any classification system that the Commission ultimately adopts.³⁹⁰ Additionally, commenters requesting such a harmonization also stated that value impact standards should be consistent between the 15% standard asset definition and the categories used in the classification.³⁹¹

We have determined to incorporate an illiquid investment category into rule 22e-4's broader classification requirement for several reasons. Specifically, harmonizing funds' illiquid

³⁸⁷ See, e.g., Federated Comment Letter; Fidelity I Comment Letter; SIFMA Comment Letter I; State Street Comment Letter.

³⁸⁸ See *infra* paragraph accompanying footnote 419.

³⁸⁹ See *infra* footnotes 399-401 and accompanying text.

³⁹⁰ See, e.g., AFR Comment Letter; BlackRock Comment Letter; Interactive Data Comment Letter; Markit Comment Letter.

³⁹¹ See, e.g., AFR Comment Letter; Markit Comment Letter.

investment determinations with the general liquidity classification framework will create consistency in the value impact standards across liquidity categories.³⁹² As noted above, the illiquid investment value impact standard in final rule 22e-4 has been changed from whether a fund could sell an investment at “approximately the value at which the fund has valued the investment,” to whether a fund could sell the investment “without the sale or disposition significantly changing the market value of the investment.”³⁹³ We are adopting this new value impact standard for illiquid investment determinations in part as a response to commenters’ concerns about confusion that could arise from conflicting standards. Accordingly, the value impact standard for illiquid investments is substantially identical to the value impact standard for all other classification categories.³⁹⁴ As discussed in more detail above, the final classification value impact standard highlights that: (i) the standard does not require a fund to actually re-value or re-price an investment for classification purposes; and (ii) the standard does not require the fund to incorporate general market movements in liquidity determinations or estimate market impact to a precise degree.³⁹⁵

Significantly, in harmonizing features of the illiquid investment category with other categories in the liquidity classification framework, we also are replacing existing Commission guidance on identifying illiquid assets with new regulatory requirements regarding the process for determining that certain investments are illiquid.³⁹⁶ In the Proposing Release, we noted that we were proposing to withdraw Commission guidance because we believed the proposal would

³⁹² See *supra* section III.C.1.c.

³⁹³ See rule 22e-4(a)(8).

³⁹⁴ Compare rule 22e-4(a)(8) with rule 22e-4(a)(6), (10) and (12).

³⁹⁵ See *supra* section III.C.1.c.

³⁹⁶ See *infra* footnote 561 and accompanying text.

provide “a more comprehensive framework for funds to evaluate the liquidity of their assets.”³⁹⁷

We also requested comment on whether additional guidance is needed in connection with the proposed codification of the Commission’s illiquid asset guidelines. Although many commenters supported the proposed codification of the Commission’s guidelines on illiquid assets,³⁹⁸ most did not specifically comment on the Commission’s proposal to withdraw the guidance associated with its illiquid asset guidelines. However, certain commenters suggested that stronger requirements and guidance regarding assets subject to the 15% limit could be appropriate.³⁹⁹ One commenter expressed concern that the Commission’s guidelines today are having only a “limited impact on fund behavior” and that the current 15% limit “applies to an inappropriately narrow range of assets and is therefore ineffective as an investor protection mechanism.”⁴⁰⁰ This commenter suggested that the limit should encompass not only those assets that are not able to be sold within seven days at approximately the value ascribed by the fund, but also those assets that cannot be converted to cash (that is, sold with the sale settled) within this same period, taking into account this same value impact standard.⁴⁰¹

We agree with those commenters that suggested the Commission’s current guidelines, together with many funds’ interpretation of these guidelines today, may result in funds only focusing on certain largely structural features that can lessen the liquidity of an investment (such as transfer restrictions and trading halts) rather than more market- and trading-based features.

³⁹⁷ See Proposing Release, *supra* footnote 9, at text following n.356.

³⁹⁸ See *supra* footnote 387.

³⁹⁹ See, e.g., AFR Comment Letter; see also Keefer Comment Letter; Wahh Comment Letter (both suggesting that the 15% standard not just be limited to the time of purchase, but instead should be an ongoing requirement).

⁴⁰⁰ See AFR Comment Letter.

⁴⁰¹ *Id.*

This can result in funds considering only an artificially narrow set of portfolio investments to be illiquid. As we discussed in the Proposing Release, we understand that today it is common—even for complexes with generally robust liquidity risk management procedures—to treat the process for determining whether an investment is illiquid under the current Commission guidelines as a compliance or “back-office” function, with little indication that information generated from the risk or portfolio management functions informs the compliance determinations. Thus, we understand that some funds currently may determine that an investment is liquid, rather than illiquid, primarily based on certain structural characteristics of the investment without assessing market or trading information or other potentially relevant factors. Such investments include private equity securities and certain other privately placed or restricted securities,⁴⁰² as well as certain instruments or transactions that by their structure do not mature and are not readily transferable in seven days or less, including term repurchase agreements.⁴⁰³ While a focus on structural features alone may be appropriate in some circumstances (for example, an across-the-board assumption that all securities with a trading halt are illiquid, without an additional assessment of market or trading factors), in other circumstances the failure to consider market, trading, and other relevant information could result in a fund considering an investment to be liquid even if the fund cannot reasonably expect to sell amounts it reasonably anticipates trading without the sale or disposition significantly changing the market value of the investment within seven calendar days.

For these reasons, rule 22e-4 as adopted today, requires a fund to incorporate certain additional considerations in determining whether an investment is illiquid. We are withdrawing

⁴⁰² See Restricted Securities Release, *supra* footnote 37; see also Rule 144A Release, *supra* footnote 37.

⁴⁰³ See Interval Fund Proposing Release, *supra* footnote 41.

existing guidance and replacing it with new regulatory requirements and guidance regarding the process for determining whether a portfolio investment is illiquid.⁴⁰⁴ A fund would have to take into account “relevant market, trading, and investment-specific considerations” when determining whether an investment is an illiquid investment.⁴⁰⁵

The guidance the Commission provides below on matters funds might consider in assessing market, trading, and investment-specific considerations reflects factors that the Commission has previously said are reasonable examples of factors to evaluate in determining whether a rule 144A security is liquid and makes them more generally applicable to assessing liquidity of other investments.⁴⁰⁶ Thus, this guidance draws on past Commission guidance for evaluating whether a certain type of investment is liquid or illiquid, and extends this process to a fund’s liquidity determinations regarding all types of investments. We recognize that the guidance in the Rule 144A Release anticipates that fund boards will determine whether certain securities are liquid or illiquid.⁴⁰⁷ While we have considered the specific guidance factors discussed in the Rule 144A Release in the context of the guidance we provide herein with respect to classifying the liquidity of portfolio investments, neither our guidance nor the final rule places the responsibility for determining whether a specific security is liquid or illiquid on the fund’s board. The board would, however, be responsible for approving the fund’s liquidity risk management program, which provides the framework for evaluating the liquidity of the fund’s investments, and for reviewing (at least annually) a written report that describes a review of the

⁴⁰⁴ See rule 22e-4(b)(1)(ii), (iv).

⁴⁰⁵ See rule 22e-4(b)(1)(ii).

⁴⁰⁶ See *infra* footnotes 560 and 561 and accompanying text.

⁴⁰⁷ See Rule 144A Release, *supra* footnote 37 (stating that “determination of the liquidity of Rule 144A securities in the portfolio of an investment company issuing redeemable securities is a question of fact for the board of directors to determine, based upon the trading markets for the specific security.”).

program's adequacy and the effectiveness of its implementation. Overall, a fund must classify its investments by focusing on those market, trading, and investment-specific considerations that are relevant to its portfolio. We believe that this principles-based approach should result in funds making realistic and well-informed determinations about investments' liquidity (or illiquidity) based on analysis beyond simple decisions solely about structural features of an asset class.

As with other liquidity classification categories and as discussed in more detail in section III.C.3.a below, funds can determine illiquid investments on an asset-class basis, with exceptions for investments whose liquidity characteristics significantly differ from the class. For example, a fund could employ procedures whereby certain asset classes are initially considered liquid, and then further evaluated to decide whether relevant market, trading, and investment-specific considerations should result in a particular investment being treated as an exception and a change to the initial liquidity determination.⁴⁰⁸ A fund could use the specific guidance factors we discuss in section III.C.4 below as part of its process for taking into account relevant market, trading, and investment-specific considerations in determining whether an investment is illiquid. For example, a fund that generally considers certain high-yield bonds *not* to be illiquid (for instance, a fund that typically considers high-yield domestic corporate bonds to be moderately liquid investments) could determine that certain securities within this class are actually illiquid investments, based on restrictions on trading that could occur if one of these bonds' issuers were to enter bankruptcy and the debt were to become distressed. Conversely, a fund that generally considers certain investments to be illiquid (such as rule 144A securities) could determine that

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See infra section III.C.3.a (discussing that, under rule 22e-4, a fund would generally be permitted to classify its portfolio investments according to their asset class, but if it has information that a particular investment has different liquidity characteristics than other investments within the same asset class, it would need to treat that investment as an exception to the way that the fund classifies its other holdings within the same asset class).

some of these investments should be included in another liquidity category based on relevant market, trading, and investment-specific considerations.⁴⁰⁹

We also understand, based on staff outreach, that some fund complexes make determinations of whether a portfolio investment is liquid (or illiquid) under the current Commission guidelines based on whether a single trading lot for the investment can be sold within seven days under normal market circumstances. Certain funds interpret this to allow them to declare an entire holding to be liquid even if they could only sell a very small portion of it without a significant value impact. Staff has observed that these fund practices and interpretations of current Commission guidelines may result in a fund determining that very few, if any, portfolio investments are illiquid under the current guidelines, even in situations in which the liquidity of a large portion of a fund's portfolio is fairly limited.

Given the practices described above when funds did not consider market depth in making liquidity determinations and considering the comments discussed above regarding the proposed illiquid asset limit, under the final rule, a fund will be required to consider market depth in determining whether to classify portfolio investments as illiquid investments. To the extent that the fund determines that trading varying portions of a position is reasonably expected to significantly affect the liquidity characteristics of that investment—that is, the market depth for the investment is reasonably expected to significantly affect its liquidity—the fund would need to take this into account in classifying the investment as illiquid.⁴¹⁰ These are the same market depth considerations a fund would have to take into account in classifying the liquidity of its

⁴⁰⁹ See rule 22e-4(b)(ii). See also section III.C (discussing the various considerations required when classifying the liquidity of fund securities).

⁴¹⁰ Rule 22e-4(b)(1)(ii).

portfolio investments generally, as discussed in detail below.⁴¹¹

Members of the fund industry have argued that because a fund will not likely need to sell its entire position in a particular investment under normal market circumstances, liquidity determinations should be based on the sale of a single trading lot for that investment, except in unusual circumstances.⁴¹² However, a fund could encounter situations in which it needs to liquidate larger portions than one trading lot of its positions in order to meet redemption requests, but cannot do so within the seven-day time period required under section 22(e). As discussed below, we believe that the market depth considerations required by the final classification requirement will appropriately require a fund to consider situations in which the size of a fund's holdings could significantly affect those holdings' liquidity and impact the fund's ability to manage its liquidity risk—that is, when portfolio liquidity may be significantly constrained by the fund's ability to trade meaningful sizes of its portfolio holdings. We believe this assessment of market depth will assist in illiquidity determinations incorporating a realistic analysis of a fund's ability to meet redemption requests without significant dilution, and thus in funds better managing liquidity risk.

As discussed above, one commenter suggested extending the definition of illiquid assets to encompass not only those assets that are not able to be sold within seven days at approximately the value ascribed by the fund, but also those assets where the sale cannot be settled within this same period, taking into account the same value impact standard.⁴¹³ After considering this suggestion, we have ultimately decided that the “illiquid investments” category

⁴¹¹ See *infra* III.C.3.b.

⁴¹² See Investment Company Institute, *Valuation and Liquidity Issues for Mutual Funds* (Feb. 1997), at 42.

⁴¹³ See *supra* footnote 401 and accompanying text.

under rule 22e-4 should reflect only the period for selling or disposing of an investment and not also consider settlement timing. Instead, the “less liquid” category reflects those investments that could be sold, but not settled, within seven days without a significant value impact.

Investments that *cannot be sold* within seven days without a significant value impact (illiquid investments, under rule 22e-4) have different liquidity characteristics and are essentially less liquid than investments that *can be sold* within seven days without a significant value impact, but whose sale cannot be settled within this period (less liquid investments, under rule 22e-4).⁴¹⁴ As discussed above, less liquid investments could still be considered a limited source of liquidity for meeting redemptions within the seven-day period specified under section 22(e) of the Act, with the caveat that a fund may have to address certain challenges associated with their settlement, whereas a fund’s illiquid investments are structurally or as a matter of market dynamics less liquid and a fund may be unable to use them to meet redemptions within seven days.⁴¹⁵

However, we note that trades in certain investments may take an extended period of time to settle. Trades in some low quality loans, for example, may not settle for a number of months.⁴¹⁶ A fund that holds less liquid investments with extended settlement periods must develop a liquidity risk management program that takes into account the liquidity risks

⁴¹⁴ When a fund sells an asset (even if the transaction has not yet settled), the fund has a receivable on its books, and any potential loss from the sale of that asset will be reflected in the fund’s NAV. If the fund has an asset it cannot sell, however, the fund continues to be exposed to the risk of unknown potential loss until the asset can be sold.

⁴¹⁵ See *supra* paragraph accompanying footnote 383 (discussing less liquid investments and the extent to which less liquid investments may be available to meet redemption requests within seven days if a fund addresses certain challenges associated with their sale and settlement).

⁴¹⁶ See *e.g.*, Michael Mackenzie and Tracy Alloway, *Lengthy US loan settlements prompt liquidity fears*, Financial Times (May 1, 2014), available at <http://www.ft.com/cms/s/0/32181cb6-d096-11e3-9a81-00144feabdc0.html#axzz4HqiQv5wj> (noting that a quarter of new loans being issued were taking more than 30 days to settle).

associated with extended settlement periods.⁴¹⁷ These policies and procedures could include limits on the amount of less liquid investments with extended settlement periods a fund will hold or more frequent liquidity classification reviews for this type of holding. Such a fund may also wish to consider the circumstances in which it would seek to obtain expedited settlement (where possible) and establish tailored policies and procedures regarding how and when it would seek expedited settlement. Funds may also wish to consider whether to obtain an additional source of financing (for example, a committed line of credit dedicated to that fund) to bridge the period until the sales would settle.

We believe that the new requirement to take into account market, trading, and investment-specific considerations, as well as to consider market depth, in identifying illiquid investments responds to the concern that the way illiquid investments are currently defined has only limited effects on funds' liquidity risk management and the liquidity of their portfolios.⁴¹⁸ We understand that, to the extent a fund is not currently taking into account market, trading, and investment-specific considerations or market depth when assessing the illiquidity of its investments, the new regulatory requirements regarding the process for determining that certain investments are illiquid under the rule are likely to result in the fund determining that a greater percentage of its holdings are illiquid than under the guidelines. In extreme circumstances, this—in combination with the limitation on funds' illiquid investment holdings to 15% of its net assets discussed at section III.E below—could cause certain funds to have to modify their investment strategies or reconsider their structure as open-end funds. We also understand that

⁴¹⁷ Such extended settlement period securities have the potential to pose heightened liquidity risks for funds, and thus policies and procedures that are reasonably designed to assess and manage the liquidity risk of a fund that holds such securities would take into account the particular liquidity risks raised by such holdings. See rule 22e-4(b)(1)(i).

⁴¹⁸ See *supra* footnote 400 and accompanying text.

these requirements will entail additional operational costs, to the extent that funds today do not generally take into account relevant market, trading, and investment-specific considerations, or market depth, in determining whether their portfolio investments are illiquid. However, as discussed in detail in the Economic Analysis section below, we believe that these costs are justified by the investor protection benefits that we believe will result from better portfolio liquidity assessments.⁴¹⁹

3. *Required Classification Procedures*

a. Classification Based on Asset Class

Rule 22e-4, as adopted today, generally permits a fund to, as a starting point, classify the liquidity of its portfolio investments according to their asset class.⁴²⁰ Notwithstanding this general approach, a fund will be required to separately classify any investment if the fund or its adviser, after reasonable inquiry, has information about any market, trading, or investment-specific considerations that are reasonably expected to significantly affect the liquidity characteristics of that investment as compared to the fund's other portfolio holdings within that asset class.⁴²¹ For example, if the fund or its adviser were to know that particular large-capitalization equity was affected by adverse events at the issuer that caused it to have different liquidity characteristics than the asset class as a whole, it would be required to treat that investment as an exception and classify it separately. As another example, a fund could decide that high credit quality corporate bonds generally fall into a particular liquidity category, but if the fund or its adviser had information that certain bonds' bid-ask spreads are significantly wider

⁴¹⁹ See *infra* section IV.C.

⁴²⁰ See rule 22e-4(b)(1)(ii)(A).

⁴²¹ *Id.*

or more volatile than those of their peers, it would be required under rule 22e-4 to separately assess these bonds and potentially classify them into a less-liquid category than the fund's other holdings within the same asset class. We expect that, based on a fund's responsibility under the rule to classify each of its investments after reasonable inquiry and taking into account relevant market, trading, and investment-specific considerations, there are some asset classes, such as those encompassing some bespoke complex derivatives or complex structured securities,⁴²² that have such a range of liquidity characteristics that each position would need to be classified individually.

Rule 22e-4 as proposed would not have allowed a fund to, as a starting point, classify its portfolio investments according to asset class. The proposed rule instead would have required a fund to classify each of its positions in a portfolio asset (or portions of a position) according to the liquidity categories included in the rule.⁴²³ In the Proposing Release, we requested comment on whether the proposed classification requirement and associated liquidity categories reflected the manner in which funds currently assess and categorize the liquidity of their portfolio holdings as part of their portfolio and risk management.

Many commenters objected to the proposed position-level classification requirement, arguing that it does not reflect recognized liquidity risk management practices and does not reflect industry best practices.⁴²⁴ Commenters likewise maintained that, instead of assessing portfolio liquidity on a position-by-position basis, asset managers tend to focus on the liquidity of certain asset classes and/or generally view liquidity at the portfolio level based on a

⁴²² See 2015 Derivatives Proposing Release, *infra* footnote 222(discussing bespoke complex derivatives).

⁴²³ Proposed rule 22e-4(b)(2)(i).

⁴²⁴ See, e.g., Credit Suisse Comment Letter; Dodge & Cox Comment Letter; PIMCO Comment Letter; Vanguard Comment Letter.

“top-down” analysis.⁴²⁵ On the other hand, some commenters acknowledged that certain asset managers may classify the liquidity of individual portfolio positions within a range of categories, albeit not at the level of detail suggested by the proposal, or for all classes of portfolio assets.⁴²⁶

Commenters stated that considering portfolio liquidity on the basis of asset class, at least as a starting point, has practical, operational, and conceptual benefits compared to considering the liquidity of each portfolio position individually.⁴²⁷ Commenters stated that assets with certain similar characteristics are often “highly comparable and substitutable from a liquidity perspective,”⁴²⁸ and liquidity assessments based on asset class would permit a fund manager to account for differences in market structure and portfolio management objectives among asset classes.⁴²⁹ Commenters also argued that evaluating and classifying each portfolio asset individually would be “overly burdensome and near-impossible to manage,” as a fund complex may collectively hold hundreds of thousands of individual portfolio assets,⁴³⁰ and the data required to classify each asset individually may not be readily available for all asset types (particularly for fixed income or other OTC assets).

Relatedly, multiple commenters suggested alternative liquidity classification schemes that would be based on an “asset-type mapping with exceptions” analysis.⁴³¹ These alternatives used an approach where a fund’s portfolio assets’ liquidity generally would be classified by asset

⁴²⁵ See, e.g., Dodge & Cox Comment Letter; ICI Comment Letter III; IDC Comment Letter; Charles Schwab Comment Letter.

⁴²⁶ See CFA Comment Letter; MFS Comment Letter; Nuveen Comment Letter; Wellington Comment Letter.

⁴²⁷ See, e.g., Dechert Comment Letter; HSBC Comment Letter; ICI Comment Letter I; Wellington Comment Letter.

⁴²⁸ See ICI Comment Letter I.

⁴²⁹ See Vanguard Comment Letter.

⁴³⁰ See Fidelity Comment Letter.

⁴³¹ See SIFMA Comment Letter III; *see also* BlackRock Comment Letter; T. Rowe Comment Letter.

class—with exceptions to the extent a particular portfolio asset demonstrates liquidity characteristics that differ from the liquidity of its asset class generally and that are deemed to make the position substantially more or less liquid.⁴³² Assets treated on an exception basis could be placed in a different liquidity category than the rest of their asset class, which could be either higher or lower.⁴³³ The asset class analysis provisions of final rule 22e-4 generally take this approach. The primary difference between commenters’ “asset-type mapping with exceptions” suggested approaches and the approach incorporated in final rule 22e-4 is that commenters’ suggested approaches would rely on the Commission (or an industry group) assigning default liquidity categories to each asset class, whereas the approach we are adopting would depend on each fund performing this exercise based on its adviser’s individual experience in the markets.

We believe that this approach strikes an appropriate balance between lessening operational burdens associated with classification and recognizing that many investments within an asset class may be considered interchangeable from a liquidity perspective, on one hand, and providing reasonably precise liquidity classifications that appropriately reflect investments’ liquidity characteristics, on the other hand. This approach also should leverage fund managers’ current practices to a greater degree than under the proposal. A fund’s asset-class-based classification procedures should incorporate sufficient detail to meaningfully distinguish between asset classes and sub-classes. For example, a fund may wish to distinguish how it classifies its equity securities based on factors such as the market(s) in which the security’s issuer is based, market capitalization, and whether the security is common or preferred stock. As another example, a fund may wish to distinguish its fixed income securities based on factors such as

⁴³² See, e.g., SIFMA Comment Letter III.

⁴³³ *Id.*

issuer type, the market(s) in which the issuer is based, seniority, age, and credit quality, and to distinguish its holdings of structured products based on tranche seniority and credit quality. We do not consider it appropriate for a fund to use very general asset class categories (*e.g.*, “equities,” “fixed income,” and “other”) in classifying the liquidity of its portfolio investments, as these broad categories would likely not permit a fund to identify investments with fungible liquidity characteristics. A fund’s asset-class-based classification procedures also should include procedures for updating default asset-class liquidity classifications as relevant market, trading, and investment-specific considerations warrant.⁴³⁴

A fund would be required to separately classify any investment within an asset class if the fund or its adviser were to have information about any market, trading, or investment specific considerations that are reasonably expected to significantly affect the liquidity characteristics of that investment as compared to the fund’s other portfolio holdings within that asset class (its “exception processes”).⁴³⁵ Rule 22e-4 does not specify precisely how a fund must identify investments that should be classified separately as part of its exception processes. However, reasonably designed policies and procedures would likely include specifying the sources of inputs that inform its exception processes (for example, inputs from the fund’s portfolio management, risk management, and/or trading functions), as well as particular variables that could affect the fund’s classification of certain investments. For example, a fund could determine that a particular investment should be classified differently than other investments within its asset class if the market for that particular investment were exceptional in terms of

⁴³⁴ See rule 22e-4(b)(1)(ii) (requiring funds to classify their investments taking into account relevant market, trading, and investment-specific considerations and to review their portfolio investments’ classifications if changes in these considerations are reasonably expected to materially affect one or more of their investments’ classifications).

⁴³⁵ See rule 22e-4(b)(1)(ii)(A).

size, breadth, or depth, or if the investment’s typical bid-ask spreads were generally wider, narrower, or more volatile than the bid-ask spreads of other assets within the asset class. A fund could incorporate an assessment of the liquidity classification guidance factors discussed below, as the fund determines appropriate, in its exception processes.⁴³⁶

b. Required Procedures for Considering Market Depth

Under rule 22e-4 as adopted today, a fund would be required to determine whether trading varying portions of a position in a particular portfolio investment, in sizes that the fund would reasonably anticipate trading, is reasonably expected to significantly affect the liquidity characteristics of that investment.⁴³⁷ To the extent that the fund determines that trading varying portions of a position is reasonably expected to significantly affect the liquidity characteristics of that investment—that is, the market depth for the investment is reasonably expected to significantly affect its liquidity—the fund would need to take this into account in classifying the liquidity of that investment.⁴³⁸ As discussed in more detail below, this requirement would have a fund consider portions of a portfolio position that are larger than a single trading lot, but not necessarily the position’s full size, in assessing its portfolio investments’ liquidity.

These market depth-related requirements are meant to substitute for, and modify, the language of proposed rule 22e-4 that would have effectively required a fund to consider position size in classifying the liquidity of its portfolio investments. As discussed above, proposed rule 22e-4 would have had a fund consider, for each portfolio position, the amount of time it would take to convert the entire position, or portions thereof, to cash.⁴³⁹ Under this proposed

⁴³⁶ See *infra* section III.C.4.

⁴³⁷ See rule 22e-4(b)(1)(ii)(B).

⁴³⁸ *Id.*

⁴³⁹ See proposed rule 22e-4(b)(2)(i); see also *supra* section III.C.2.d.

requirement, if a fund were to conclude that it would take the fund longer to convert its entire position in an asset to cash, it could determine, for example, that 50% of the position should be classified in one liquidity category, and the remaining 50% should be classified in another category.

This aspect of the proposed requirement arose from our belief that a fund should consider its ability to trade larger portions of a portfolio asset than a single trading lot in assessing its portfolio investments' liquidity. The ability to quickly trade larger portions of a particular position is a reflection of market depth for a particular asset, which is a well-recognized aspect of assessing liquidity.⁴⁴⁰ In the Proposing Release, we responded to arguments that because a fund will not likely need to sell its entire position in a particular asset under normal market conditions, liquidity determinations should be based on the sale of a single trading lot for that asset, except in unusual circumstances.⁴⁴¹ We noted that, although we agreed that a fund not being able to convert its entire position in an asset to cash at a price that does not materially affect the value of that asset should not, by itself, be dispositive of a portfolio asset's liquidity, assessing liquidity only on the basis of the ability to sell and receive cash for a single trading lot of an asset ignores the fact that a fund may need to sell all (or a significant portion) of its position.⁴⁴²

Multiple commenters expressed concern about the proposed requirement to consider full position size in classifying the liquidity of a fund's portfolio assets.⁴⁴³ Commenters argued that

⁴⁴⁰ See *infra* footnote 526 and accompanying text.

⁴⁴¹ See Proposing Release, *supra* footnote 9, at n.177 and accompanying text.

⁴⁴² See *id.*, at paragraph accompanying n.177. For example, a fund needing to sell certain assets in order to meet redemptions may need to sell more than one trading lot of a particular asset. In addition, a fund may determine to dispose of an entire position because of deteriorating credit quality or other portfolio management factors. Similarly, an index fund may need to sell an entire position in an asset if that asset falls out of the tracked index.

⁴⁴³ See, e.g., BlackRock Comment Letter; IDC Comment Letter; SIFMA Comment Letter I; Wellington

many industry participants currently assess asset liquidity by trading lot (as opposed to evaluating whether a fund can exit an entire position within a certain time period), reflecting that a fund generally would not need to liquidate an entire large position unexpectedly.⁴⁴⁴

Commenters also contended that this aspect of the proposal could result in large funds' portfolio liquidity appearing artificially low compared to smaller funds because large funds are more likely to hold larger positions and determine that they could not quickly liquidate these positions entirely without a value impact.⁴⁴⁵ Commenters argued that it could be misleading for large funds to appear to be less liquid than smaller funds, because large funds' portfolios might actually entail less liquidity risk compared to smaller funds (because each position, while large in absolute size, is a smaller portion of the overall portfolio than may be the case in smaller funds), and large funds may have greater resources than smaller funds to manage liquidity effectively.⁴⁴⁶ For example, one commenter stated that large funds often have more diversified holdings than smaller funds and may wield more negotiating power with broker-dealers.⁴⁴⁷

The market depth approach we are adopting takes commenters' concerns into account, although as discussed above we continue to believe that an investment strategy involving large positions in particular issuers—particularly if the fund's portfolio is relatively concentrated—is relevant to assessing liquidity risk.⁴⁴⁸ We appreciate that, in many cases, a fund may not have to trade large portions of its portfolio holdings in relatively short time periods in order to meet

Comment Letter.

⁴⁴⁴ See, e.g., ICI Comment Letter I; Charles Schwab Comment Letter; Vanguard Comment Letter.

⁴⁴⁵ See, e.g., BlackRock Comment Letter; ICI Comment Letter I; Oppenheimer Comment Letter; SIFMA Comment Letter I.

⁴⁴⁶ See, e.g., SIFMA Comment Letter I; *see also* BlackRock Comment Letter; Oppenheimer Comment Letter; Vanguard Comment Letter; Wellington Comment Letter.

⁴⁴⁷ See BlackRock Comment Letter.

⁴⁴⁸ See *supra* footnotes 210-212 and accompanying text.

redemptions, or to otherwise manage its liquidity risk. For example, a fund may not need to often quickly convert large portions of its portfolio investments to cash, based on its cash flow projections (*e.g.*, if the fund's investors are known to be primarily long-term investors) and other liquidity risk assessment factors.⁴⁴⁹ We also recognize that there could be situations in which the requirement to consider entire position size in classifying a fund's portfolio investments, regardless of the size of trades a fund typically engages in, could make a fund appear to be less liquid than the fund's actual trading experiences in light of its portfolio investments' market depth. This could be misleading if the fund were actually able to trade a large percentage of its holdings fairly quickly without the fund's trades significantly moving the investments' prices. We believe that the required market depth considerations incorporated into the final classification requirement will permit a fund to more realistically assess the liquidity of its portfolio investments because they allow a fund to classify and review its portfolio investments taking into account position sizes that the fund would reasonably anticipate trading.

We believe that if a fund reasonably anticipates trading sizeable portions of its portfolio positions, the fund's portfolio liquidity could be adversely affected by a lack of market depth for its portfolio investments. A fund could reasonably anticipate trading sizeable portions of its portfolio positions if it often trades relatively large portions of its portfolio positions. Likewise, a fund may not trade larger portions of its portfolio positions on a regular basis, but could reasonably anticipate, based on past flow patterns or current market conditions that it could encounter larger-than-typical redemptions that would necessitate larger portfolio trades. In both of these examples, such a fund could conclude that it may be difficult to find trading partners for a particular portfolio investment, or may be difficult to sell the investment within a particular

⁴⁴⁹ See rule 22e-4(b)(1)(i).

time frame without this sale causing a significant value impact. For this reason, rule 22e-4 requires a fund to consider the sizes of a particular investment that the fund would reasonably anticipate trading and whether trading in such sizes could significantly affect the investment's liquidity. If so, the fund would be required to take this into account in classifying the liquidity of that portfolio investment.⁴⁵⁰ If the fund determined, after conducting the required market depth analysis, that a downward adjustment in the liquidity classification of a particular investment is appropriate, the new liquidity classification that the fund assigns to this investment would apply to the entirety of the fund's position in that investment (not, as proposed, to portions of that position). This approach is meant to lessen burdens on funds, as well as respond to commenters' concerns, by focusing a fund's market depth considerations on circumstances in which a fund's practices in trading varying portions of its portfolio positions could have a disproportionate effect on its portfolio investments' liquidity.

Rule 22e-4 directs a fund to consider sizes that the fund would reasonably anticipate trading in assessing the impact of market depth on an investment's liquidity.⁴⁵¹ Depending on the liquidity risk factors that a fund must consider under rule 22e-4(b)(1)(i), as well as other factors including the fund's size, a fund could reasonably anticipate selling various portions of its position in a particular portfolio investment, or various dollar amounts or block sizes of a particular portfolio investment.⁴⁵² For example, it may be appropriate for a fund with a highly

⁴⁵⁰ See rule 22e-4(b)(1)(ii)(B).

⁴⁵¹ *Id.*

⁴⁵² See, e.g., Kapil Phadnis, *Block Trading in Today's Electronic Markets*, Bloomberg Tradebook (May 20, 2015), available at <http://www.bloombertradebook.com/blog/block-trading-in-todays-electronic-markets/> (discussing block trading in the equity markets and noting that New York Stock Exchange Rule 72 defines a "Block" as at least 10,000 shares or \$200,000, whichever is less); *Got Liquidity?*, BlackRock Investment Institute (Sept. 2012) ("Got Liquidity?"), at 6, available at <https://www.blackrock.com/investing/literature/whitepaper/got-liquidity-us-version.pdf> (indicating that, from 2010 – 2012, block trades of over \$5 million represented between approximately 30% - 45% of the

liquid portfolio, with very stable and minimal cash flow projections and significant cash holdings and operating in very stable market conditions, to adopt policies and procedures that consider whether trading relatively small fractions of each of the fund's portfolio holdings would result in significant liquidity impacts. On the other hand, we would generally consider it appropriate for a fund whose holdings are relatively illiquid and/or fairly concentrated, with unpredictable cash flow projections or deteriorating market conditions in the markets in which it invests, to consider whether trading larger portions of its portfolio holdings would result in significant liquidity impacts.

c. Classification Issues Arising with Respect to Derivatives Transactions

Rule 22e-4 requires that the liquidity classification and review requirements cover each of the fund's investments, including derivatives transactions, and that a fund take into account relevant market, trading, and investment-specific considerations in classifying the liquidity of its investments.⁴⁵³ The rule also states that for derivatives transactions that a fund has classified as moderately liquid investments, less liquid investments, and illiquid investments, the fund must identify the percentage of its highly liquid investments that are segregated to cover, or pledged to satisfy margin requirements in connection with, derivatives transactions in each of these classification categories.⁴⁵⁴ A fund also will be required to disclose these percentages on its Form N-PORT filings.⁴⁵⁵ We believe a fund's disclosure of this percentage will permit the Commission and its staff to understand what percentage of a fund's highly liquid investment

U.S. investment grade corporate bond market's trading volume).

⁴⁵³ Rule 22e-4(b)(1)(ii).

⁴⁵⁴ Rule 22e-4(b)(1)(ii)(C). Because, as discussed below, a fund generally will segregate certain liquid assets in order to cover the fund's obligations under its derivatives transactions, rule 22e-4 assumes that a fund would not segregate any of its assets identified as illiquid investments to cover its derivatives transactions. *See infra* footnote 462 and accompanying text.

⁴⁵⁵ *See infra* section III.C.6.b.

minimum is composed of encumbered assets, and will allow the public to better understand that a certain percentage of a fund's highly liquid investments may not be immediately available for liquidity risk management purposes. The final rule does not require the fund to determine or disclose the percentage of the fund's moderately liquid investments or less liquid investments that the fund has segregated to cover, or pledged in connection with, its derivatives transactions, because we understand that funds are less likely to post moderately or less liquid investments as margin or collateral. We also expect that investors and others will find most valuable information regarding the extent to which the fund's highly liquid investments are segregated or pledged in connection with derivatives transactions because understanding that percentage may give investors a better understanding of whether such assets are truly available to make redemptions.

These requirements replace the proposed requirement for a fund to consider the “relationship of [an] asset to another portfolio asset” in classifying and reviewing the liquidity of its portfolio assets,⁴⁵⁶ as well as the derivatives-focused guidance that the Commission provided in the Proposing Release regarding this proposed classification factor.⁴⁵⁷ The Commission's guidance was meant to give direction to funds' liquidity classification of derivatives transactions and the assets that a fund may segregate to cover its obligations under these transactions.⁴⁵⁸ As discussed below, we are not adopting the proposed factors that a fund would have had to consider in classifying the liquidity of its portfolio holdings, including the “relationship of [an]

⁴⁵⁶ See proposed rule 22e-4(b)(2)(ii)(I).

⁴⁵⁷ See Proposing Release, *supra* footnote 9, at section III.B.2.i.

⁴⁵⁸ *Id.*

asset to another portfolio asset” factor.⁴⁵⁹ However, we are adopting new classification provisions in rule 22e-4 that will apply to derivatives transactions⁴⁶⁰ as well as a provision that will address assets segregated to cover derivatives transactions⁴⁶¹ so that funds consistently consider certain unique aspects of these transactions, and also to respond to commenters’ concerns stemming from the treatment of derivatives under the proposal.

In the Proposing Release, we noted that when funds enter into certain transactions that implicate section 18 of the Investment Company Act, they generally will maintain, in a segregated account, certain liquid assets in order to “cover” the fund’s obligation under the transactions.⁴⁶² We applied this framework to certain financing transactions in Release 10666, issued in 1979,⁴⁶³ and also understand that funds today apply this framework to certain derivatives, based on the guidance we provided in Release 10666 and on no-action letters issued by our staff.⁴⁶⁴ We explained in Release 10666 that “[a] segregated account freezes certain assets of the investment company and renders such assets unavailable for sale or other disposition.”⁴⁶⁵

⁴⁵⁹ Instead, we are requiring that a fund must take into account market, trading, and investment-specific considerations in classifying the liquidity of its portfolio investments. *See* rule 22e-4(b)(1)(ii); *see also supra* section III.C.1.b. We provide guidance below on specific factors that a fund may find appropriate to consider in furtherance of this requirement. *See infra* section III.C.4.

⁴⁶⁰ *See* rule 22e-4(b)(1)(ii).

⁴⁶¹ *See* rule 22e-4(b)(1)(ii)(C). This provision also applies to assets pledged to satisfy margin requirements in connection with derivatives transactions.

⁴⁶² *See* Proposing Release, *supra* footnote 9, at section III.B.2.i.

⁴⁶³ Release 10666, *supra* footnote 220. In December 2015, the Commission proposed a new exemptive rule, rule 18f-4, which would permit funds to enter into derivatives transactions and financial commitment transactions notwithstanding section 18 of the Investment Company Act, provided that the funds comply with the conditions of the proposed rule. In proposing rule 18f-4, the Commission noted that, should the rule be adopted, it would rescind Release 10666 and relevant staff no-action letters. *See* 2015 Derivatives Proposing Release, *supra* footnote 222, at section III.I.

⁴⁶⁴ *See generally* 2015 Derivatives Proposing Release, *supra* footnote 222, at section II.B (providing background information on the application of section 18 and Release 10666 to derivatives and certain other transactions).

⁴⁶⁵ *See also* Dear Chief Financial Officer Letter from Lawrence A. Friend, Chief Accountant, Division of Investment Management (Nov. 7, 1997) (staff letter taking the position that a fund could segregate assets

We also stated in Release 10666 that only certain types of liquid assets should be placed in a segregated account.

Thus, we noted in the Proposing Release that, although assets used by a fund to cover derivatives and other transactions should be liquid when considered in isolation, when evaluating their liquidity for purposes of proposed rule 22e-4, the fund would have to consider that they are being used to cover other transactions and, consistent with our position in Release 10666, are “frozen” and “unavailable for sale or other disposition.”⁴⁶⁶ We stated that because these assets are only available for sale to meet redemptions once the related derivatives position is disposed of or unwound, a fund should classify the liquidity of these segregated assets using the liquidity of the derivative instruments they are covering. We also provided guidance that, when a formerly segregated asset is no longer segregated, a fund generally should assess, as part of the proposed ongoing liquidity classification review requirement, whether the liquidity classification given to the portfolio asset when it was segregated continues to be appropriate. Finally, we noted in the Proposing Release that in addition to the liquidity of a fund’s derivatives positions themselves, assessing a fund’s liquidity risk generally may include an evaluation of the potential liquidity demands that may be imposed on the fund in connection with its use of derivatives, including any variation margin or collateral calls the fund may be required to meet.⁴⁶⁷

The Proposing Release included a request for comment on the proposed “relationship of [an] asset to another portfolio asset” liquidity classification factor, which included asking whether rule 22e-4 should explicitly require a fund to classify the liquidity of a position (or

by designating such assets on its books, rather than establishing a segregated account at its custodian).

⁴⁶⁶ See Proposing Release, *supra* footnote 9, at section III.B.2.i.

⁴⁶⁷ See *id.*, at n.309 and accompanying text.

portions of a position in a particular asset) used to cover a derivative position using the same liquidity classification category as it assigned to the derivative, and whether the Commission should provide additional guidance regarding the circumstances in which a fund should consider the liquidity of a particular portfolio asset in relation to the liquidity of another asset.⁴⁶⁸ Multiple commenters raised concerns about the proposed “relationship of [an] asset to another portfolio asset” liquidity classification factor and accompanying guidance in the Proposing Release.⁴⁶⁹ Many stated that the Commission’s guidance as to classifying segregated assets using the liquidity of the derivative instrument they are covering would be unworkable and would raise costly operational burdens, because funds currently do not identify individual liquid assets to cover specific derivatives transactions.⁴⁷⁰ Instead, commenters noted that it is common in the fund industry for a fund to review its outstanding obligations under its derivatives positions on a portfolio basis and determine an aggregate amount of liquid assets that must be segregated in connection with the transactions requiring coverage.⁴⁷¹ One commenter suggested that, instead of the proposed “relationship of [an] asset to another portfolio asset” liquidity classification factor, the Commission alternatively could require funds to assign liquidity classifications to cover assets on an aggregate portfolio basis in amounts corresponding to the aggregate amount of derivatives exposure in each liquidity category.⁴⁷²

⁴⁶⁸ See *id.*, at section III.B.2.j.

⁴⁶⁹ See, e.g., Dechert Comment Letter; Milliman Comment Letter; T. Rowe Comment Letter; Vanguard Comment Letter.

⁴⁷⁰ See, e.g., Dechert Comment Letter; ICI Comment Letter I; Invesco Comment Letter; Vanguard Comment Letter. *But see* Nuveen Comment Letter (suggesting that, for purposes of the alternative liquidity classification approach that it recommends, a security used specifically to cover a derivatives transaction that cannot be unwound within seven days (and thus the derivative would be classified as “illiquid” under the commenter’s recommended approach) also would be considered to be “illiquid” under that approach).

⁴⁷¹ See Dechert Comment Letter.

⁴⁷² See *id.*; see also ICI Comment Letter I (suggesting that the Commission add an item to Form N-PORT’s

Some commenters also argued that the guidance provided in the proposal could make an otherwise liquid but segregated asset appear to be less liquid than it actually is when considered in isolation.⁴⁷³ For example, if a cash equivalent security were used to cover a derivative that the fund determined to be convertible to cash within 8-15 days, under the Commission's guidance, the cash equivalent also would be classified as an asset that could be converted to cash within 8-15 days. However, the fund would be able to replace the cash equivalent as a coverage asset with another liquid asset at any time, which would immediately unencumber the cash equivalent (but would encumber other liquid assets with the same value).

Finally, commenters generally discussed features of derivatives transactions informing the way that their liquidity would be classified under proposed rule 22e-4. One commenter noted that the proposal seemed to suggest that derivatives are inherently more risky and present greater liquidity risk than other, more traditional assets.⁴⁷⁴ This commenter maintained that, in some situations, derivatives may be more liquid than more traditional assets. Another commenter stated that, while the liquidity of a derivatives transaction depends on the derivative's underlying reference asset to some degree, its liquidity also largely stems from the needs of other market participants for that kind of derivative.⁴⁷⁵

The requirements in rule 22e-4 regarding the classification of a fund's derivatives transactions are meant to clarify and simplify the application of the classification requirements to derivatives transactions and respond to commenters' concerns. First, rule 22e-4 specifies that the

Schedule of Portfolio Investments that permits a fund to note whether an asset (or portion thereof) is encumbered or linked to other assets as of the reporting date, without separately tying to or identifying a "linked" asset).

⁴⁷³ See ICI Comment Letter I; T. Rowe Comment Letter.

⁴⁷⁴ See T. Rowe Comment Letter.

⁴⁷⁵ See Milliman Comment Letter.

liquidity classification and review requirements apply to each of the fund’s investment transactions (including derivatives) and requires a fund to take into account relevant market, trading, and investment-specific considerations in classifying derivatives’ liquidity.⁴⁷⁶ In addition, we have modified rule 22e-4 from the proposal to require a fund to classify each of the fund’s portfolio *investments*.⁴⁷⁷ We have made this change to clarify that the classification requirement (and the other requirements of rule 22e-4) applies to all of a fund’s investment positions, regardless of whether they are assets or liabilities, as the proposal intended.⁴⁷⁸ The proposed classification requirement, which would have required each fund to classify the liquidity of its portfolio positions (or portions of a position in a particular asset), could potentially have been read to exclude certain derivatives and other transactions that are classified as liabilities on the fund’s balance sheet.⁴⁷⁹ Final rule 22e-4 thus requires the liquidity of all

⁴⁷⁶ Rule 22e-4(b)(1)(ii). As with other portfolio investments, funds may classify derivatives transactions by asset class, so long as the fund or its adviser does not have information about any market, trading, or investment-specific considerations that are reasonably expected to significantly affect the liquidity characteristics of a particular derivative that would require a different classification for that derivative. Rule 22e-4(b)(1)(ii)(A).

⁴⁷⁷ We note that in the Proposing Release, we requested comment on whether the rule should “focus not just on the liquidity of the fund’s assets but also more specifically and prominently on its liabilities, such as derivatives obligations, that may affect the liquidity of the fund.” See Proposing Release, *supra* footnote 9, at text following n.155.

⁴⁷⁸ We note that use of the term “investments” is consistent with other reporting requirements on Form N-PORT, and reflects the proposal’s discussions of the classification requirement applying to all of a fund’s portfolio positions, not just those that are assets. See, e.g., *id.*, at section III.B. (“[W]e are proposing new requirements for classifying and monitoring the liquidity of funds’ *portfolio positions*.”; “The proposed liquidity categorization process would be in addition to the existing 15% guideline (which would be retained, as discussed below) and would require a fund to assess the liquidity of its *portfolio positions* individually, as well as the liquidity profile of the fund as a whole.” [emphasis added]). See also Investment Company Reporting Modernization Adopting Release, *supra* footnote 120.

⁴⁷⁹ We note, however, that no commenters suggested that the proposal’s use of the terms “assets” and “positions” interchangeably would lead to derivatives or other investments that are liabilities not being subject to the rule, and that many commenters discussed the impact of the classification requirement on a variety of derivatives and other transactions that could be liabilities. See, e.g., ICI Comment Letter (discussing classifications of derivatives and TBA transactions); HSBC Comment Letter (noting that “[T]o the extent that this is possible, Asset Managers should attempt to take all liabilities into account when trying to calculate liquidity for a given fund.”). Nonetheless, to eliminate any potential confusion, we are changing the term “assets” to “investments” throughout rule 22e-4, related reporting items and definitions

derivatives transactions to be classified, regardless of if they are classified as assets or liabilities on a fund's balance sheet, for the sake of operational simplicity, completeness (*e.g.*, to help reduce confusion regarding a fund's liquidity profile as disclosed on Form N-PORT), and because all derivatives transactions could implicate portfolio liquidity insofar as other assets are segregated to cover these derivatives and derivatives in a liability position involve transactions for which a fund would be required to pay fund assets to exit the transaction.⁴⁸⁰

Besides specifying that the liquidity of a derivatives transaction must be classified taking into account relevant market, trading, and investment-specific considerations, rule 22e-4 provides no derivatives-specific factors that a fund would have to evaluate in classifying a derivatives transactions' liquidity. We generally agree with commenters' suggestions that the liquidity of a derivatives transaction may depend on market demand for that kind of derivative, as well as the liquidity of the derivative's underlying reference asset.⁴⁸¹ Whether a derivatives transaction is centrally cleared also could indicate that the transaction is more liquid than an equivalent transaction that is not cleared.⁴⁸² In classifying and reviewing the liquidity of a derivatives transaction, like classifying the liquidity of any portfolio investment, a fund should consider the guidance factors discussed in this Release, to the extent the factors are applicable

on Form N-PORT and Form N-LIQUID.

⁴⁸⁰ See rule 22e-4(b)(1)(ii) (requiring funds to classify each of the portfolio investments, including each of the fund's derivatives transactions). We have made corresponding changes to each of the liquidity categories to account for the classification of all portfolio investments (*i.e.*, the liquidity categories under rule 22e-4 as adopted are highly liquid investments, moderately liquid investments, less liquid investments, and illiquid investments).

⁴⁸¹ See *supra* footnotes 474-475 and accompanying text.

⁴⁸² See, *e.g.*, Deutsche Bank Research, *Liquidity Is Key for the Central Clearing of Derivatives* (Mar. 12, 2015), available at https://www.dbresearch.com/PROD/DBR_INTERNET_EN-PROD/PROD000000000352403/Liquidity_is_key_for_the_central_clearing_of_deriv.pdf; see also *infra* footnote 552.

and the fund deems their consideration to be appropriate.⁴⁸³ The provision in rule 22e-4 stating that a fund may generally classify its portfolio investments according to their asset class applies to the fund's derivatives transactions,⁴⁸⁴ as do the rule's market depth provisions.⁴⁸⁵ The definitions of "highly liquid investment," "moderately liquid investment," and "less liquid investment" that refer to the ability to convert an investment to cash or dispose of an investment within a specified period, with respect to derivatives transactions that the fund classifies as liabilities on its balance sheet,⁴⁸⁶ should be read to refer to the time period in which the fund reasonably expects to be able to exit a transaction.

Along with classifying the liquidity of each of its derivative transactions, final rule 22e-4 requires a fund to identify, for derivatives transactions that a fund has classified as moderately liquid investments, less liquid investments, and illiquid investments, the percentage of the fund's highly liquid investments that are segregated to cover, or pledged to satisfy margin requirements in connection with, the transactions in each of these classification categories.⁴⁸⁷ When a fund's assets are segregated or pledged in connection with derivatives transactions, they are only available for sale to meet redemptions once the related derivatives position is disposed of or unwound (or if other assets are segregated or pledged in their place). Thus, even if the segregated or pledged assets would, on their own, be considered extremely liquid, they would effectively not be able to be used to meet redemption requests or to rebalance or otherwise adjust a portfolio's composition in order to manage liquidity risk. As discussed below, we believe that

⁴⁸³ See *infra* section III.C.4.

⁴⁸⁴ Rule 22e-4(b)(1)(ii)(A).

⁴⁸⁵ Rule 22e-4(b)(1)(ii)(B).

⁴⁸⁶ See *supra* footnote 480 and accompanying text.

⁴⁸⁷ Rule 22e-4(b)(1)(ii)(C).

it is important, for purposes of transparency regarding a fund’s portfolio liquidity, to provide clarity that certain percentages of a fund’s investments may not be functionally available to meet redemptions or for other liquidity risk management purposes.⁴⁸⁸

We believe that requiring a fund to determine the percentage of highly liquid investments that are segregated to cover, or pledged to satisfy margin requirements in connection with, its derivatives transactions classified in each of the “moderately liquid,” “less liquid,” and “illiquid” classification categories strikes an appropriate balance between providing this transparency and reducing burdens on funds. Under this approach, a fund generally would not need to specifically identify particular assets that are segregated or pledged to cover specific derivatives transactions, but instead a fund will calculate the percentage of highly liquid investments segregated or pledged to cover derivatives transactions that include derivatives transactions classified in each of the other three classification categories. For purposes of calculating these percentages, a fund that has segregated or pledged non-highly liquid investments as well as highly liquid investments to cover derivatives transactions, should first use segregated or pledged assets that are highly liquid investments to cover derivatives transactions classified in the three lower liquidity classification categories.⁴⁸⁹ This approach should promote consistency and comparability across funds. In the absence of such an instruction, some funds might instead take the opposite approach, and assume that segregated non-highly liquid investments first cover these less liquid derivatives transactions, creating inconsistencies between funds.

The approach in the final rule responds to commenters’ concerns that funds rarely

⁴⁸⁸ See *infra* section III.C.6.

⁴⁸⁹ See note to rule 22e-4(b)(1)(ii)(C). However, if a fund has specifically identified individual assets that are not highly liquid investments as being segregated to cover such derivatives transactions, the fund may match those specific segregated assets to specific derivatives transactions and need not assume that segregated highly liquid assets cover those derivatives.

identify and segregate a specific liquid asset against an individual derivative on a one-for-one relationship,⁴⁹⁰ and would reduce burdens that could result if the Commission's liquidity classification rules were to require a fund to do so. It also responds to commenters' concerns that linking the liquidity of specific segregated assets to the liquidity of a fund's derivatives transactions could understate the liquidity of those segregated assets, since a fund may be able to readily substitute another liquid asset for the segregated asset.⁴⁹¹ However, the Commission's approach also would provide the basis for needed transparency for the Commission, its staff, and the public into the way that a fund's segregated or pledged assets may affect the fund's overall portfolio liquidity. Rule 22e-4, which requires a fund only to determine percentages of segregated or pledged assets comprising the fund's highly liquid investments, reflects our belief that this transparency is especially important with respect to funds' highly liquid investments. As noted above, a fund's disclosure of percentages of its highly liquid investments that are segregated or pledged assets would permit the Commission and its staff to understand what percentage of a fund's highly liquid investment minimum is composed of encumbered assets, and would allow the public to better understand that a certain percentage of a fund's highly liquid investments may not be immediately available for liquidity risk management purposes.

While a fund will not need to identify which of its particular assets are segregated in connection with particular derivatives transactions, it will need to identify the percentage of its highly liquid investments that are segregated or pledged with respect to derivatives transactions classified in each of the moderately liquid, less liquid, and illiquid classification categories. We recognize that these requirements will likely entail additional evaluation of the liquidity character

⁴⁹⁰ See *supra* footnote 470 and accompanying text.

⁴⁹¹ See *supra* footnote 473 and accompanying paragraph. We note, however, that the ability to substitute may not improve the overall liquidity of the portfolio.

of a fund's segregated assets compared to what a fund might do today as part of its current asset segregation procedures.⁴⁹² We believe these burdens are justified, however, by the important transparency benefits of identifying the percentages of highly liquid investments that are segregated or pledged assets.

We also note that these burdens are further reduced because under the rule a fund need not identify the percentage of segregated or pledged assets covering derivatives that are highly liquid investments, or the percentage of segregated or pledged assets that are moderately liquid investments or less liquid investments.⁴⁹³ A fund would be permitted to exclude its derivatives transactions that are classified as highly liquid investments in determining the percentages of highly liquid investments that are segregated or pledged assets since the fund could dispose of or exit these derivatives transactions within three business days and the segregated or pledged assets also would be available to the fund for liquidity risk management purposes within three business days. Furthermore, as described in the preceding paragraph, the rule's requirement to identify the percentages of a fund's highly liquid investments that are also segregated or pledged assets reflects our belief that asset segregation or margin transparency is most important with respect to a fund's highly liquid investments.

4. *Guidance on Liquidity Classification Factors*

Unlike rule 22e-4 as proposed, final rule 22e-4 does not include an enumerated list of factors that a fund would be specifically required to consider in classifying and reviewing the liquidity of its portfolio investments. The rule instead generally requires a fund to take into account "relevant market, trading, and investment-specific considerations" in classifying and

⁴⁹² See *infra* section IV.C.1.

⁴⁹³ See rule 22e-4(b)(1)(ii)(C).

reviewing its portfolio investments' liquidity.⁴⁹⁴ In contrast, under the proposed rule a fund would have been required to take the following nine factors into account, to the extent applicable, when classifying the liquidity of each portfolio position in a particular asset:

- Existence of an active market for the asset, including whether the asset is listed on an exchange, as well as the number, diversity, and quality of market participants;
- Frequency of trades or quotes for the asset and average daily trading volume of the asset (regardless of whether the asset is a security traded on an exchange);
- Volatility of trading prices for the asset;
- Bid-ask spreads for the asset;
- Whether the asset has a relatively standardized and simple structure;
- For fixed income securities, maturity and date of issue;
- Restrictions on trading of the asset and limitations on transfer of the asset;
- The size of the fund's position in the asset relative to the asset's average daily trading volume and, as applicable, the number of units of the asset outstanding; and
- Relationship of the asset to another portfolio asset.⁴⁹⁵

The Proposing Release requested comment generally on whether the Commission should codify a list of liquidity classification factors (as discussed above)⁴⁹⁶ and also requested comments relating to the usefulness of the proposed factors generally, as well as specific comments on the proposed factors.⁴⁹⁷ With respect to the general usefulness of the proposed

⁴⁹⁴ See *supra* section III.C.1.b.

⁴⁹⁵ Proposed rule 22e-4(b)(2)(ii).

⁴⁹⁶ See *supra* section III.C.1.b.

⁴⁹⁷ See Proposing Release, *supra* footnote 9, at section III.B.2.j.

factors, multiple commenters suggested that the proposed factors would be largely informative in assessing assets' relative liquidity,⁴⁹⁸ but others advised that the proposed factors would not be useful in assisting fund management in making liquidity determinations.⁴⁹⁹ Some who objected to the proposed factors argued that their usefulness would be limited by the fact that they would be based on backward-looking data and thus may not reflect future conditions.⁵⁰⁰ Some commenters also argued that some of the proposed factors (*e.g.*, frequency of trades or quotes for an asset and average daily trading volume of an asset) are generally more appropriate for assessing the liquidity of exchange-traded securities than securities that are traded over-the-counter ("OTC") and that evaluating certain OTC securities using the proposed factors may make these securities appear to be less liquid than they actually are.⁵⁰¹ For example, multiple commenters contended that certain fixed income securities tend to trade infrequently on any given day, but these securities' liquidity is nevertheless quite high because a fund would generally be able to sell them fairly quickly.⁵⁰² As discussed specifically below, commenters also expressed more granular concerns about certain of the proposed factors (specifically, frequency of trades or quotes for an asset, trading price volatility, position size, and relationship of an asset to another portfolio asset⁵⁰³).

⁴⁹⁸ See, *e.g.*, CRMC Comment Letter; ICI Comment Letter I; J.P. Morgan Comment Letter; Nuveen Comment Letter.

⁴⁹⁹ See, *e.g.*, Cove Street Comment; GFOA Comment Letter; MFS Comment Letter; Vanguard Comment Letter.

⁵⁰⁰ See, *e.g.*, Cove Street Comment; Dodge & Cox Comment Letter; Vanguard Comment Letter.

⁵⁰¹ See, *e.g.*, Banks Comment Letter; LSTA Comment Letter; Milliman Comment Letter; Wells Fargo Comment Letter.

⁵⁰² See, *e.g.*, GFOA Comment Letter; MFS Comment Letter; T. Rowe Comment Letter; Vanguard Comment Letter.

⁵⁰³ For a discussion of commenters' concerns about this proposed factor in the context of derivatives transactions, see *supra* section III.C.3.c.

As discussed above, we are not codifying the proposed factors in part because we understand that certain factors would be more informative to some funds than others, depending on the fund's investment strategy and liquidity risk profile. We also are concerned that codifying the factors, particularly if applied in a "check-the-box" fashion, could lead funds to adopt classification processes that do not reflect the extent of a fund's ability to sell its portfolio investments to meet redemptions within a given time period without a market impact, or do not otherwise result in an accurate picture of a fund's liquidity profile.⁵⁰⁴ However, we continue to believe that the proposed classification factors could be useful and relevant as aspects of the general market, trading, and investment-specific considerations that a fund must take into account under the final rule. Thus, in this section III.C.4, we discuss each of the factors that funds could consider in evaluating portfolio investments' liquidity characteristics and managing liquidity risk.⁵⁰⁵ Based on staff outreach across the fund industry, we understand that certain of

Commenters also expressed concerns about this proposed factor in the context of assets used for hedging or risk mitigation purposes. In the Proposing Release, we stated that, when a fund purchases an asset (a "hedging asset") in order to hedge or mitigate the risks associated with another asset (a "hedged asset"), the fund should consider the liquidity of the hedged asset when evaluating the liquidity of the hedging asset. Commenters stated that current industry practice often involves hedging aggregate portfolio exposures, not specific securities. *See, e.g.*, ICI Comment Letter I; Milliman Comment Letter; Oppenheimer Comment Letter; T. Rowe Comment Letter. These commenters argued that the Commission's guidance instructing a fund to classify the liquidity of hedging assets in consideration of the hedged asset's liquidity classification would therefore be unworkable and would raise costly operational burdens, because funds do not currently link hedging assets and hedged assets on a one-for-one basis.

Unlike in the context of derivatives transactions, in which we have stated that a fund must segregate assets to cover derivatives transactions, and this renders the segregated assets "frozen" and "unavailable for sale or other disposition" (*see supra* footnote 465 and accompanying text), we have not previously stated that purchasing assets with the intent to hedge or mitigate the risks associated with another asset makes those hedging assets unavailable for sale. We thus do not view the linkages between hedging and hedged assets to be directly analogous with the linkages between derivatives transactions and assets segregated to cover those derivatives transactions, and we are not stating in this Release the guidance we included in the Proposing Release regarding the proposed "relationship of an asset to another portfolio asset" in the context of assets used for hedging or risk mitigation purposes.

⁵⁰⁴ Cf. *supra* paragraph accompanying footnote 322.

⁵⁰⁵ Our discussion of factors that could be considered by funds does not include the proposed "relationship of [an] asset to another portfolio asset" factor because guidance on this factor, as discussed above, has been replaced by requirements in rule 22e-4 regarding classification issues that arise with respect to derivatives

these factors reflect certain common considerations that funds often take into account in evaluating their portfolio investments' liquidity.⁵⁰⁶ Moreover, as discussed above, multiple commenters stated that the proposed rule included factors that, largely, are useful for assessing a fund's assets' relative liquidity.⁵⁰⁷ For example, some commenters agreed that factors such as those incorporated in the proposal are generally relevant considerations to use when evaluating asset liquidity and would help promote effective liquidity risk assessments,⁵⁰⁸ and that portfolio assets' liquidity should be evaluated using a variety of inputs such as those that the proposed factors represent.⁵⁰⁹ Some suggested that the Commission discuss the factors as guidance accompanying its adoption of rule 22e-4.⁵¹⁰ Overall, we believe this approach provides flexibility that should facilitate meaningful liquidity analyses, and encourages funds to consider relevant information.

We acknowledge, as stated by some commenters, that certain of these factors may involve consideration of backward-looking data and thus may not account for ways in which changing market conditions could affect the liquidity of certain asset classes or investments.⁵¹¹ But we believe analyzing past data, while considering how that data may change in the future, is an inherent aspect of all risk management and does not render such analysis fruitless. In addition, the review requirements embedded in the classification framework, when combined

transactions. *See supra* footnotes 456-461 and accompanying text; *see also supra* footnote 503 (discussing this proposed factor in the context of assets used for hedging or risk mitigation purposes).

⁵⁰⁶ *See* Proposing Release, *supra* footnote 9, at text preceding n.200.

⁵⁰⁷ *See supra* footnote 498 and accompanying text.

⁵⁰⁸ *See, e.g.*, CRMC Comment Letter; Fidelity Comment Letter; J.P. Morgan Comment Letter; Nuveen Comment Letter.

⁵⁰⁹ *See, e.g.*, HSBC Comment Letter; MSCI Comment Letter.

⁵¹⁰ *See, e.g.*, IDC Comment Letter; Invesco Comment Letter; J.P. Morgan Comment Letter; SIFMA Comment Letter I.

⁵¹¹ *See supra* footnote 500 and accompanying text.

with the liquidity risk assessment requirement to consider portfolio liquidity during normal and reasonably foreseeable stressed periods, further responds to this critique. We also are cognizant that, for certain fixed income or other OTC assets or asset classes, certain of the proposed liquidity classification factors, if considered standing alone, may appear to make these assets or classes to appear less liquid than they actually are. In the guidance below, we discuss special concerns that may be relevant to funds' consideration of the liquidity characteristics of fixed income or other OTC assets.⁵¹²

As discussed above, a fund generally is permitted to classify the liquidity of its portfolio investments according to their asset class. Thus, a fund may wish to consider the guidance discussed below in assessing the general liquidity characteristics of the asset classes in which it invests. For investments that the fund determines must be treated as an "exception" and classified separate from their asset class,⁵¹³ the guidance provided below could assist funds in identifying and classifying those investments that may demonstrate liquidity characteristics that are distinct from the fund's other portfolio holdings within that same asset class.

The guidance we provide below is not meant to cover an exhaustive list of considerations that a fund may take into account in evaluating its portfolio investments' liquidity. Also, we recognize that specific liquidity concerns appropriate for consideration could vary depending on the issuer and the particular investment.⁵¹⁴ Even if a fund's liquidity classification policies and procedures were to incorporate all of the guidance factors discussed below, a fund may decide that it is appropriate to focus more heavily on certain factors and less on others in evaluating its

⁵¹² See, e.g., text accompanying *infra* footnotes 536-538 and 545-558.

⁵¹³ See rule 22e-4(b)(1)(ii)(A).

⁵¹⁴ See, e.g., Fidelity Comment Letter; LSTA Comment Letter; Nuveen Comment Letter; T. Rowe Comment Letter (each suggesting that the Commission clarify that not every factor is required to be considered to evaluate the liquidity of each of a fund's portfolio assets).

portfolio investments' liquidity.

In the following sections, we discuss certain factors that a fund could consider in assessing the liquidity of its portfolio investments and provide guidance on specific issues associated with each of these factors. We also discuss comments we received on the proposed classification factors.

a. Existence of Active Market for an Asset Class or Investment; Exchange-Traded Nature of an Asset Class or Investment

We continue to believe that the manner in which a fund may sell an asset class (or particular portfolio investment), including whether an asset class or investment is generally listed on an exchange, may affect the liquidity of that asset class or investment.⁵¹⁵ While in general, being listed on a developed and recognized exchange may increase an investment's liquidity,⁵¹⁶ we note, as certain commenters mentioned,⁵¹⁷ the fact that an investment is exchange-traded does not necessarily mean that a fund would be able to sell or convert that investment to cash within a relatively short period.⁵¹⁸ For example, a small-cap equity stock might be listed on an exchange but trade quite infrequently, which would tend to decrease its relative liquidity. Conversely, as

⁵¹⁵ See Proposing Release, *supra* footnote 9, at section III.B.2.a (discussing the proposed requirement for a fund to consider, to the extent applicable, the existence of an active market for an asset, including whether the asset is listed on an exchange, as well as the number, diversity, and quality of market participants, in classifying the liquidity of each portfolio position in a particular asset).

⁵¹⁶ See, e.g., Basel Committee on Banking Supervision, *Basel III: The Liquidity Coverage Ratio and Liquidity Risk Monitoring Tools* (Jan. 2013), at part 1, section II.A.1, available at <http://www.bis.org/publ/bcbs238.pdf>; see also Nuveen FSOC Notice Comment Letter, *supra* footnote 85 (“While securities that trade on exchanges. . . or in deep principal/over-the-counter (“OTC”) markets (e.g., U.S. Treasuries) are generally liquid even in stressed markets, other securities that trade on an OTC basis. . . have faced increasing liquidity challenges in normal markets and can be subject to insufficient quality bids in times of stress as market makers pull back their capital. This can make it not only more difficult to sell these securities, but also to accurately value those assets that are retained.”).

⁵¹⁷ See, e.g., ICI Comment Letter I.

⁵¹⁸ We note that in certain cases the exchange on which an investment is listed may not be the primary market for that security. For example, we understand that certain bonds that are exchange listed trade predominantly in the OTC markets. See, e.g., Types of Bonds, How Big Is the Market, and Who Buys?, available at <http://www.investinginbonds.com/learnmore.asp?catid=5&subcatid=18&id=174> (“[T]he vast majority of bond transactions, even those involving exchange-listed issues, take place in [OTC] market.”).

commenters discuss, we agree that certain securities that are traditionally traded in OTC markets, such as corporate bonds, may not typically be designed to be traded frequently and instead are more often “bought and held,” but certain of these securities nevertheless may be readily saleable without the conversion to cash (or in some cases, sale or disposition) significantly changing their market value.⁵¹⁹ Additionally, securities issued (or guaranteed as to principal and interest) by the U.S. government do not trade on exchanges, but are typically considered to be quite liquid.⁵²⁰

In assessing the effect that being traded on an exchange could have on an asset class’s or investment’s liquidity, a fund generally should evaluate how this consideration informs the liquidity characteristics of any ETF shares in which it invests. We understand that certain funds, particularly funds with investment strategies involving relatively less liquid portfolio securities (such as micro-cap equity funds, high-yield bond funds, and bank loan funds), may invest a portion of their assets in ETFs with strategies similar to the fund’s investment strategy because they view ETF shares as having characteristics that enhance the liquidity of the fund’s portfolio.⁵²¹ Specifically, in discussions with Commission staff, funds that invest in ETF shares

⁵¹⁹ See *id.*

⁵²⁰ See rule 15c3-1(c)(2)(vi)(A)(1) under the Exchange Act (describing securities haircuts for securities issued or guaranteed as to principal or interest by the United States or any agency thereof); *see also* Liquidity Coverage Ratio: Liquidity Risk Measurement Standards (Sept. 9, 2014) [79 FR 61440 (Oct. 10, 2014)] (“Liquidity Coverage Ratio Release”) (in liquidity coverage ratio rule adopted by the Office of the Comptroller of the Currency, Board of Governors of the Federal Reserve System, and the Federal Deposit Insurance Corporation, “Level 1 Liquid Assets” are described as securities issued or unconditionally guaranteed as to timely payment of principal and interest by the U.S. Department of the Treasury, and liquid and readily-marketable securities issued or unconditionally guaranteed as to the timely payment of principal and interest by any other U.S. government agency (provided that its obligations are fully and explicitly guaranteed by the full faith and credit of the U.S. government)).

⁵²¹ See, e.g., Katy Burne, *Institutions Pour Cash Into Bond ETFs*, Wall Street Journal (Mar. 1, 2015), available at <http://www.wsj.com/articles/institutions-pour-cash-into-bond-etfs-1425250969>. Funds’ investments in ETFs are subject to the Investment Company Act’s limitations on investments in shares issued by other registered investment companies. See section 12(d)(1)(A) of the Act. Currently, these practices do not concern ETMFs.

The Commission’s 2015 Request for Comment on Exchange-Traded Products requested comment on whether investors’ expectations of the nature of the liquidity of an exchange-traded product (including an

have suggested that they find that these shares are more readily tradable, are less expensive to trade, and have shorter settlement periods than other types of portfolio investments.⁵²² In addition, unlike investments in cash, cash equivalents, and other highly liquid instruments, funds also have suggested to Commission staff that investing in ETFs with the same (or a similar) strategy as the fund's investment strategy permits the fund to remain fully invested in assets that reflect the fund's investment concentrations, risks, and performance potential.⁵²³

While we appreciate that ETFs' exchange-traded nature could make these instruments useful to funds in managing purchases and redemptions under certain conditions (for example, ETFs' settlement times could more closely reflect the time in which a fund has disclosed that it will typically redeem fund shares), funds should consider the extent to which relying substantially on ETFs to manage liquidity risk is appropriate. The liquidity of an ETF, particularly in times of declining market liquidity, is limited by the liquidity of the market for the ETF's underlying securities and, in fact, may be impaired based on factors not directly related to the liquidity of the underlying securities.⁵²⁴ Thus, shares of an ETF whose underlying securities

ETF) holding relatively less liquid portfolio securities differ from their expectations of the liquidity of the underlying portfolio securities. See 2015 ETP Request for Comment, *supra* footnote 29, at Question 49. Commenters expressed a range of views on the question. See, e.g., Comment Letter of Vanguard on the 2015 ETP Request for Comment (Aug. 17, 2015) (stating that the disclosures made by ETFs in prospectuses, shareholder reports, and Web sites "ensures that investors and market participants have the necessary information to make informed investment decisions"); Comment Letter of ETF Radar on the 2015 ETP Request for Comment (Aug. 8, 2015) (stating that investor expectations of liquidity depend on the skill of the investor); Comment Letter of Danny Reich on the 2015 ETP Request for Comment (July 2, 2015) (stating that there is a "false assumption" that underlying assets have the same liquidity as the ETP, particularly with respect to bond ETPs).

⁵²² See Proposing Release, *supra* footnote 9, at section III.C.6.b.

⁵²³ See *id.*

⁵²⁴ See ETF Proposing Release, *supra* footnote 27, at section III.A.1; see also Tyler Durden, *What Would Happen if ETF Holders Sold All at Once? Howard Marks Explains*, Zero Hedge (Mar. 26, 2015), available at <http://www.zerohedge.com/news/2015-03-26/what-would-happen-if-etf-holders-sold-all-once-howard-marks-explains> ("Thus we can't get away from depending on the liquidity of the underlying high yield bonds. The ETF can't be more liquid than the underlying, and we know the underlying can become highly illiquid."). But see, e.g., Shelly Antoniewicz, *Plenty of Players Provide Liquidity for ETFs*, ICI Viewpoints

are relatively less liquid may not be able to be counted on to provide liquidity to a fund investing in these shares during times of stress. In the case of a significant decline in market liquidity, if authorized participants were unwilling or unable to trade ETF shares in the primary market, and the majority of trading took place among investors in the secondary market, the ETF's shares could trade continuously at a premium or a discount to the value of the ETF's underlying portfolio securities. This could frustrate the expectations of secondary market participants who count on the creation and redemption process to align the prices of ETF shares and their underlying portfolio securities. We therefore encourage funds to assess the liquidity characteristics of an ETF's underlying securities, as well as the characteristics of the ETF shares themselves, in classifying the liquidity of ETF shares under rule 22e-4(b)(1)(ii).

Other Trading Mechanism Considerations

The means of trading a particular asset class or investment can affect its liquidity regardless of whether the investment is a security traded on an exchange. For example, whether an asset class or investment is generally traded in a bilateral transaction with a single dealer, or through an electronic auction mechanism where a trader can simultaneously contact multiple counterparties, can have different effects on its liquidity.⁵²⁵ The liquidity effects associated with choice of trading mechanism may differ depending on the asset class or investment being traded and other market conditions, and therefore it is difficult to make general statements regarding the correlation between a particular trading mechanism and the liquidity of the asset class or

(Dec. 2, 2014), available at http://www.ici.org/viewpoints/view_14_ft_etf_liquidity (stating that most of the trading activity in bond ETF shares is done in the secondary market and not through creations and redemptions with authorized participants).

⁵²⁵ See, e.g., Terrence Hendershott & Ananth Madhavan, *Click or Call? Auction versus Search in the Over-the-Counter Market*, 70 J. OF FIN. 419 (Feb. 2015), available at http://faculty.haas.berkeley.edu/hender/Click_Call_OTC.pdf.

investment being traded. For this reason, a fund may wish to consider past experience in using different trading mechanisms to sell a certain asset class or investment.

Diversity and Quality of Market Participants

In addition, the diversity and quality of market participants for a particular asset class or investment also could contribute to the liquidity of that asset class or investment. A fund may wish to consider the number of market makers on both the buying and selling sides of transactions. A fund also may wish to consider the quality of market participants purchasing and selling a particular asset class or investment, and may wish to assess, in particular: the market participant's capitalization; the reliability of the market participant's trading platform(s); and the market participant's experience and reputation transacting in various types of assets. We believe that the diversity and quality of market participants may be meaningful in assessing a portfolio investment's liquidity because it is common for relatively liquid asset classes and investments to have active sale or repurchase markets at all times with diverse market participants.⁵²⁶ The presence of multiple active market makers may be a sign that a market is liquid.⁵²⁷ Diversity of market participants, on both the buying and selling sides of transactions, may also be a significant point for a fund to consider because it tends to reduce market concentration and may facilitate a market remaining liquid during periods of stress.⁵²⁸

⁵²⁶ See, e.g., Abdourahmane Sarr & Tonny Lybek, *Measuring Liquidity in Financial Markets*, IMF Working Paper (Dec. 2002), available at <http://www.imf.org/external/pubs/ft/wp/2002/wp02232.pdf> ("Liquid markets tend to exhibit five characteristics: (i) tightness (ii) immediacy, (iii) depth, (iv) breadth, and (v) resiliency.").

⁵²⁷ See, e.g., Sunil Wahal, *Entry, Exit, Market Makers, and the Bid-Ask Spread*, 10 REV. OF FIN. STUD. 871 (1997), available at <https://www.acsu.buffalo.edu/~keechung/MGF743/Readings/H1.pdf> ("Large-scale entry (exit) is associated with substantial declines (increases) in quoted end-of-day inside spreads, even after controlling for the effects of changes in volume and volatility. The spread changes are larger in magnitude for issues with few market makers; however, even for issues with a large number of market makers, substantial changes in quoted spreads take place.").

⁵²⁸ See, e.g., Amir Rubin, *Ownership Level, Ownership Concentration, and Liquidity*, 10 J. FIN. MARKETS 219

b. Frequency of Trades or Quotes; Average Daily Trading Volume

In general, we continue to believe that a high frequency of trades or quotes for a particular asset class or investment tends to indicate that a particular asset class or investment has relatively high liquidity.⁵²⁹ However, as many commenters raised and as discussed below, low trading frequency and trading volume does not necessarily indicate low liquidity, particularly for asset classes and investments that are not exchange-traded.⁵³⁰ Also, we note that the frequency of trades or quotes for a particular asset class or investment is not a perfect or complete measure of liquidity, and a fund may wish to also consider trade size in assessing the relationship between trade frequency and liquidity.⁵³¹ In evaluating the frequency of trades (and bid and ask quotes) for an asset class or investment, a fund may wish to generally consider, among other relevant factors, the number of dealers quoting prices for that asset class or investment, the number of other potential purchasers and sellers, and dealer undertakings to make a market in the asset class or investment.

High average trading volume also tends to be correlated with greater liquidity, particularly for exchange-traded asset classes and investment. In general, high average daily trading volume for a particular asset class or investment indicates a deep market for that asset

(Aug. 2007), available at <http://www.sciencedirect.com/science/article/pii/S1386418107000134> (“We examine the link between the liquidity of a firm’s stock and its ownership structure, specifically, how much of the firm’s stock is owned by insiders and institutions, and how concentrated is their ownership. We find that the liquidity-ownership relation is mostly driven by institutional ownership rather than insider ownership. Importantly, liquidity is positively related to total institutional holdings but negatively related to institutional block holdings.”).

⁵²⁹ See Proposing Release, *supra* footnote 9, at section III.B.2.b (discussing the proposed requirement for a fund to consider, to the extent applicable, the frequency of trades or quotes for a particular asset, as well as the asset’s average daily trading volume (regardless of whether the asset is a security traded on an exchange), in classifying the liquidity of each portfolio position in a particular asset).

⁵³⁰ See *infra* footnotes 536-538 and accompanying text.

⁵³¹ For example, 100 trades at \$100 might or might not signify greater liquidity than 50 trades at \$200, although they are likely to suggest better liquidity than one trade at \$10,000. See Erik Banks, *Liquidity Risk: Managing Funding and Asset Risk* (2nd ed. 2013), at 169.

class or investment, which in turn indicates that a fund may be able to convert its holdings in that asset class or investment to cash without the conversion (or in some cases, sale or disposition) significantly changing the market value.⁵³² Especially for exchange-traded asset classes or investments, a fund may wish to consider the number of days of zero or very low trading volume during the prior month, year, or other relevant period, as this could indicate particularly limited liquidity. As one commenter suggested, and we agree, a fund may wish to consider not only the historical average trading volume of the asset class or assets in which it invests, but also whether trading volume is likely to change under different or stressed market conditions.⁵³³ High trading volume is not always indicative of available liquidity for a particular asset class or investment, however. For example, high trading volumes might be associated with high selling pressure on the asset class or investment, and trades at that time may have a high value impact.⁵³⁴ Also, as one commenter suggested, even if a particular asset class or investment were to exhibit high trading volume, the ability to convert the asset class or investment to cash without the

⁵³² See *id.*; see also Fidelity FSOC Notice Comment Letter, *supra* footnote 69 (“Liquidity management is linked to portfolio managers’ attention to market risks indicated by . . . shrinking transaction volumes which exacerbate the impact cost for additional trading”).

We note that double-counting of trades is a potential issue to consider when assessing average trading volume. Double-counting occurs because of differences between dealer and auction markets. In a dealer market, trades are “double-counted” because the dealer buys from person A and then sells to person B. In an auction market, person A and B trade directly. See, e.g., Anne M. Anderson & Edward A. Dyl, *Trading Volume: NASDAQ and the NYSE*, 63 FIN. ANALYSTS J. 79 (May/June 2007), available at <http://www.cfapubs.org/doi/abs/10.2469/faj.v63.n3.4693>.

⁵³³ See Interactive Data Comment Letter (suggesting that the Commission consider requiring a fund to consider the *potential* daily trading volume of its portfolio assets instead of, as proposed, the *average* daily trading volume of its assets).

⁵³⁴ See, e.g., HSBC Comment Letter; see also e.g., Jennifer Huang & Jiang Wang, *Liquidity and Market Crashes*, 22 REV. OF FIN. STUD. 2607 (2009), available at <http://rfs.oxfordjournals.org/content/22/7/2607.full> (discussing how there can be high selling pressure (and high volume) along with low liquidity and how this can create market crashes); Mark Carlson, *A Brief History of the 1987 Stock Market Crash with a Discussion of the Federal Reserve Response*, Federal Reserve Board Working Paper 2007–13 (Nov. 2006), available at <http://www.federalreserve.gov/pubs/feds/2007/200713/200713pap.pdf> (discussing how the 1987 stock market crash had both high volume and low liquidity).

conversion (or in some cases, sale or disposition) significantly changing the market value may also depend on other factors such as investors' appetite for risk and the perceived "safety" of specific securities in "risk-off" flight-to-quality market conditions.⁵³⁵

Multiple commenters stressed that, particularly for fixed income and other typically OTC asset classes and assets, relatively low trading volume does not necessarily correlate with low liquidity. For example, many commenters discussed the low turnover of the corporate bond market, which is driven by factors such as the buy-and-hold nature of bond investing, the distribution of an issuer's borrowing across many different bond issues, and the fact that portfolio managers may deem many bonds to be substitutes for one another based on common characteristics such as issuer, sector, credit quality, and maturity.⁵³⁶ Commenters argued that, despite the relatively low turnover that is typical in the corporate bond market, these assets are commonly considered to be readily tradable at market-clearing prices.⁵³⁷ Commenters made similar arguments about the dynamics of the municipal bond market, noting that municipal securities' trading volume is not normally high, particularly during stable financial periods, but municipal securities (especially those that are investment grade) are commonly considered to be easily saleable.⁵³⁸ We generally agree with commenters' concerns that the consideration of trading volume as a liquidity indicator should not by itself imply that low trading volume necessarily indicates low liquidity. Rather, it may indicate that other information needs to be assessed to make a liquidity determination. For asset classes and investments that typically demonstrate low trading volume, funds may wish to consider how the other liquidity

⁵³⁵ See HSBC Comment Letter.

⁵³⁶ See, e.g., Nuveen Comment Letter; Vanguard Comment Letter.

⁵³⁷ See, e.g., Nuveen Comment Letter; Vanguard Comment Letter.

⁵³⁸ See, e.g., GFOA Comment Letter; Nuveen Comment Letter.

characteristics of those asset classes and investments, including but not limited to other guidance factors discussed in this Release, may affect the time period and value impact associated with the class's or investment's ability to be converted to cash. Analysis of capital structure and credit quality of a particular asset class or investment, as well as bid-ask spreads and maturity/date of issue, may be particularly useful in considering the liquidity of investments whose trading volume is normally low.

c. Volatility of Trading Prices

We continue to believe that trading price volatility is potentially a valuable metric to consider in evaluating an asset class's or investment's liquidity.⁵³⁹ In general, there is an inverse relationship between liquidity and volatility,⁵⁴⁰ as lack of liquidity in a particular investment tends to amplify price volatility for that asset.⁵⁴¹ Additionally, the Commission understands that certain funds and fund groups have historically experienced liquidity disruptions during periods of extreme market volatility, such as the June 2013 "taper tantrum"⁵⁴² and the October 2014

⁵³⁹ See Proposing Release, *supra* footnote 9, at section III.B.2.c (discussing the proposed requirement for a fund to consider, to the extent applicable, the volatility of trading prices for its portfolio assets, in classifying the liquidity of each portfolio asset).

⁵⁴⁰ See, e.g., Tarun Chordia, Asani Sarkar & Avanidhar Subrahmanyam, *An Empirical Analysis of Stock and Bond Market Liquidity*, Federal Reserve Bank of New York Staff Reports, No. 164 (Mar. 2003), available at http://www.newyorkfed.org/research/staff_reports/sr164.pdf (finding that unexpected liquidity and volatility shocks are positively and significantly correlated across stock and bond markets).

⁵⁴¹ See, e.g., Prachi Deuskar, *Extrapolative Expectation: Implications for Volatility and Liquidity* (Aug. 2007), available at https://business.illinois.edu/pdeuskar/Deuskar_Extrapolative_Liquidity_Volatility.pdf ("Illiquidity amplifies supply shocks, increasing realized volatility of prices, which feeds into subsequent volatility forecasts."); see also Fidelity FSOC Notice Comment Letter, *supra* footnote 69, at 21 ("Liquidity management is linked to portfolio managers' attention to market risks indicated by ... increasing market- and security-specific volatility.").

⁵⁴² In May 2013, Ben Bernanke, then Chairman of the Federal Reserve Board, announced that the Federal Reserve may start scaling back its asset purchase program—in which the Federal Reserve purchased approximately \$85 billion worth of bonds and mortgage-backed securities each month—sooner than investors expected. This caused interest rates on fixed income products to spike, and bond prices to fall dramatically. This market dislocation came to be known as the "taper tantrum." See Christopher Condon & Jeff Kearns, *Fed Worried About Triggering Another 'Taper Tantrum'*, Bloomberg (Oct. 8, 2014), available at <http://www.bloomberg.com/news/articles/2014-10-08/fed-worried-about-triggering-another-taper->

“flash crash.”⁵⁴³ As one commenter suggested, and we agree, if a fund holds asset classes or investments that are thinly traded, the fund may wish to consider volatility of evaluated pricing information in assessing the liquidity of those asset classes or investments.⁵⁴⁴

d. Bid-Ask Spreads

Bid-ask spreads—the difference between bid and offer prices for a particular investment—have historically been viewed as a useful measure for assessing the liquidity of assets,⁵⁴⁵ and we continue to believe that a fund may consider this factor useful in classifying the liquidity of a particular asset class or investment.⁵⁴⁶ The bid-ask spread of a particular investment is related to the riskiness of that investment, as well as the length of time that a broker-dealer believes it will have to hold the investment before selling it.⁵⁴⁷ In general, high bid-ask spreads for a particular asset class or investment correlate with a lack of liquidity in that

[tantrum-](#)

⁵⁴³ See Joint Staff Report: The U.S. Treasury Market on October 15, 2014 (July, 13, 2015), *available at* https://www.treasury.gov/press-center/press-releases/Documents/Joint_Staff_Report_Treasury_10-15-2015.pdf (“On October 15, 2014, the market for U.S. Treasury securities, futures, and other closely related financial markets experienced an unusually high level of volatility and a very rapid round-trip in prices. Although trading volumes were high and the market continued to function, liquidity conditions became significantly strained.”).

⁵⁴⁴ See Interactive Data Comment Letter (suggesting that the Commission consider replacing the proposed “volatility of trading prices for the asset” classification factor with “volatility of traded or evaluated pricing information,” to make this proposed factor more applicable to fixed income assets and other asset classes that may be thinly traded).

⁵⁴⁵ See, e.g., Michael J. Fleming, *Measuring Treasury Market Liquidity*, Federal Reserve Bank of New York Economic Policy Review (Sept. 2003), *available at* <https://www.newyorkfed.org/medialibrary/media/research/epr/03v09n3/0309flem.pdf> (providing a literature review of studies analyzing bid-ask spreads in relation to Treasury market liquidity); *see also* Fidelity FSOC Notice Comment Letter, *supra* footnote 69, at 21 (“Liquidity management is linked to portfolio managers’ attention to market risks indicated by . . . heightened market impact costs (as indicated by widening bid/ask spreads)”).

⁵⁴⁶ See Proposing Release, *supra* footnote 9, at section III.B.2.d (discussing the proposed requirement for a fund to consider, to the extent applicable, its portfolio assets’ bid-ask spreads when assessing its portfolio assets’ liquidity).

⁵⁴⁷ See MarketAxess, *The MarketAxess Bid-Ask Spread Index (BASI): A More Informed Picture of Market Liquidity in the U.S. Corporate Bond Market* (2013), *available at* <http://www.marketaxess.com/pdfs/research/marketaxess-bid-ask-spread-index-BASI.pdf> (discussing methodology for developing an index that tracks bid-ask spreads of U.S. corporate bonds).

asset class or investment. For example, when liquidity was significantly constricted during the 2007–2009 financial crisis, bid-ask spreads on U.S. investment grade bonds were notably elevated.⁵⁴⁸ However, bid-ask spreads alone do not necessarily provide a comprehensive understanding of an investment’s liquidity. For instance, bid-ask spreads are often constrained by the increments in which prices are quoted.⁵⁴⁹ Additionally, as one commenter noted, bid-ask spreads do not take into account the volume and scale of a portfolio manager’s intended buy and sell transactions.⁵⁵⁰

e. Standardization and Simplicity of Asset Class’s or Investment’s Structure

We continue to believe that whether an asset class or investment has a relatively standardized and simple structure is generally relevant to a fund’s evaluation of an asset class’s or investment’s liquidity.⁵⁵¹ Investments that trade OTC with terms set at issuance such as sizes, maturities, coupons, and payment dates may be relatively more liquid compared to similarly

⁵⁴⁸ See, e.g., Got Liquidity?, *supra* footnote 452, at 7; see also Rich Estabrook, *Diminished Liquidity in the Corporate Bond Market: Implications for Fixed Income Investors*, Oppenheimer (Mar. 16, 2015), at 1, available at http://www.opco.com/trend-analysis/final_liquidity_report-031615.pdf.

⁵⁴⁹ See, e.g., Michael A. Goldstein & Kenneth A. Kavajecz, *Eighths, Sixteenths, and Market Depth: Changes in Tick Size and Liquidity Provision on the NYSE*, 56 J. FIN. ECON. 125 (2000), available at https://www.researchgate.net/publication/4978467_Eighths_Sixteenths_and_Market_Depth_Changes_in_Tick_Size_and_Liquidity_Provision_on_the_Nyse (“Using limit order data provided by the NYSE, we investigate the impact of reducing the minimum tick size on the liquidity of the market. While both spreads and depths (quoted and on the limit order book) declined after the NYSE’s change from eighths to sixteenths, depth declined throughout the entire limit order book as well. The combined effect of smaller spreads and reduced cumulative limit order book depth has made liquidity demanders trading small orders better off; however, traders who submitted larger orders in lower volume stocks did not benefit, especially if those stocks were low priced.”); Hendrik Bessembinder, *Tick Size, Spreads, and Liquidity: An Analysis of Nasdaq Securities Trading Near Ten Dollars*, 9 J. OF FIN. INTERMEDIATION 213 (July 2000), available at <http://www.acsu.buffalo.edu/~keechung/MGF743/Readings/G4.pdf> (“There is no evidence of a reduction in liquidity with the smaller tick size. The largest spread reductions occur for stocks whose market makers avoid odd-eighth quotes. This finding provides support for models implying that changes in the tick size can affect equilibrium spreads on a dealer market and indicates that the relation between tick size and market quality is more complex than the imposition of a constraint on minimum spread widths.”).

⁵⁵⁰ See HSBC Comment Letter.

⁵⁵¹ See Proposing Release, *supra* footnote 9, at section III.B.2.e (discussing the proposed requirement for a fund to consider, to the extent applicable, the standardization and simplicity of structure of its portfolio assets when assessing its portfolio assets’ liquidity).

situated investments without standardized terms. Standardization can increase liquidity by simplifying the ability to quote and trade securities, enhancing operational efficiency to execute and settle trades, and improving secondary market transparency. Some types of OTC-traded securities exhibit a relatively high level of standardization, such as government and agency bonds, futures contracts, and certain swap contracts. Central clearing of certain OTC-traded securities, which generally requires the terms of these securities to be highly standardized, has been associated with an increase in these investments' liquidity, as measured by factors such as the bid-ask spreads for these investments and the number of dealers providing quotes for these investments.⁵⁵² However, standardization alone may not be indicative of an investment's liquidity. For example, corporate bond issuers commonly have large numbers of bonds outstanding, and trading can be fragmented among that universe of bonds.⁵⁵³ However, as discussed above, we understand that market participants may consider many corporate bonds to be highly comparable and substitutable from a liquidity perspective, to the extent that they share

⁵⁵² See, e.g., Yee Cheng Loon & Zhaodong (Ken) Zhong, The Impact of Central Clearing on Counterparty Risk, Liquidity, and Trading: Evidence from the Credit Default Swap Market, 112 J. OF FIN. ECON. 91 (Apr. 2014), available at http://papers.ssrn.com/sol3/papers.cfm?abstract_id=2176561 (analyzing the impact of central clearing on credit default swaps and finding that cleared reference entities experience an improvement in both liquidity and trading activity relative to non-cleared entities); Joshua Slive, Jonathan Witmer & Elizabeth Woodman, Liquidity and Central Clearing: Evidence from the CDS Market, Bank of Canada Working Paper 2012–38 (Dec. 2012), available at <http://www.bankofcanada.ca/wp-content/uploads/2012/12/wp2012-38.pdf> (analyzing “the relationship between liquidity and central clearing using information on credit default swap clearing at ICE Trust and ICE Clear Europe,” and finding that “the introduction of central clearing is associated with a slight increase in the liquidity of a contract” (but noting that the effects of central clearing on liquidity must be viewed in light of the fact that the central counterparty chooses the most liquid contracts for central clearing, consistent with liquidity characteristics being important in determining the safety and efficiency of clearing)). *But see* Manmohan Singh, Collateral, Netting and Systemic Risk in the OTC Derivatives Market, IMF Working Paper 10/99 (Apr. 1, 2010), available at <https://www.imf.org/external/pubs/cat/longres.cfm?sk=23741.0> (arguing that large increases in collateral posted for the centrally cleared trades negatively affect market liquidity given that most large banks will be reluctant to offload their positions to central counterparties).

⁵⁵³ For example, while each of the top ten largest issuers in the United States had one common equity security outstanding as of April 2014, these issuers collectively had more than 9,000 bonds outstanding. See BlackRock, *Corporate Bond Market Structure: The Time for Reform Is Now*, Viewpoint (Sept. 2014), at 7, available at <https://www.blackrock.com/corporate/en-mx/literature/whitepaper/viewpoint-corporate-bond-market-structure-september-2014.pdf>.

common characteristics such as issuer, sector, credit quality, and maturity.⁵⁵⁴

f. Maturity and Date of Issue of Fixed Income Securities

We continue to believe that, with respect to the fixed income investments a fund holds in its portfolio, those investments' maturity, as well as their date of issue, are significant indicators of their liquidity.⁵⁵⁵ In general, a fixed income asset trades most frequently in the time directly following issuance, and its trading volume decreases in the asset's remaining time to maturity.⁵⁵⁶ Thus "on-the-run" securities (that is, bonds or notes of a particular maturity that were most recently issued) tend to trade significantly more frequently than their "off-the-run" counterparts (that is, bonds or notes issued before the most recently issued bond or note of a particular maturity).⁵⁵⁷ Because high trading volume generally suggests relatively high liquidity,⁵⁵⁸ a fixed income asset's date of issuance and maturity, which in turn are generally correlated with the trading volume of a fixed income asset, together are important liquidity indicators. We

⁵⁵⁴ See *supra* footnote 536 and accompanying text.

⁵⁵⁵ See Proposing Release, *supra* footnote 9, at section III.B.2.f (discussing the proposed requirement for a fund to consider, with respect to fixed income assets, these assets' maturity and date of issue when assessing their liquidity).

⁵⁵⁶ See, e.g., Sugato Chakravarty & Asani Sarkar, Liquidity in U.S. Fixed Income Markets: A Comparison of the Bid-Ask Spread in Corporate, Government and Municipal Bond Markets, Federal Reserve Board of New York Staff Report No. 73 (Mar. 1999), available at http://papers.ssrn.com/sol3/papers.cfm?abstract_id=163139.

⁵⁵⁷ The on-the-run phenomenon refers to the fact that, in fixed income markets, securities with nearly identical cash flows trade at different yields and with different liquidity. In particular, most recently issued (*i.e.*, on-the-run) government bonds of a certain maturity are generally more liquid than previously issued (*i.e.*, off-the-run or old) bonds maturing on similar dates. See, e.g., Paolo Pasquariello & Clara Vega, *The on-the-run liquidity phenomenon*, 92 J. OF FIN. ECON. 1-24 (Apr. 2009), available at <http://webuser.bus.umich.edu/ppasquar/onofftherun.pdf> (analyzing the liquidity differentials of on-the-run and off-the-run U.S. Treasury bonds and finding, among other things, that on-the-run and off-the-run liquidity differentials are economically and statistically significant—showing that on-the-run bonds tend to be more liquid than their off-the-run counterparts—even after controlling for certain intrinsic characteristics of the bonds); Michael Barclay, Terrence Hendershott & Kenneth Kotz, *Automation versus Intermediation: Evidence from Treasuries Going Off the Run*, 61 J. OF FIN. 2395 (Oct. 2006), available at <http://faculty.haas.berkeley.edu/hender/on-off.pdf> (discussing how “when Treasury securities go ‘off the run’ their trading volume drops by more than 90%”).

⁵⁵⁸ See *supra* section III.C.4.b.

understand, based on staff outreach and industry knowledge, that remaining time to maturity is a key factor that fixed income funds commonly consider in assessing the liquidity of their portfolio positions.

g. Restrictions on Trading; Limitations on Transfer

We continue to believe that restrictions on trading certain investments, as well as limitations on an investment's transfer, may adversely affect those investments' liquidity.⁵⁵⁹ For example, although we are replacing existing Commission guidance on identifying illiquid assets (including the specific factors listed in the Rule 144A Release regarding the liquidity of a rule 144A security)⁵⁶⁰ with new regulatory requirements regarding the process for determining that certain investments are illiquid, we believe that the restricted nature of a rule 144A security is one factor that generally should be considered by a fund in evaluating the liquidity of a rule 144A security.⁵⁶¹ Regardless of whether a portfolio investment is a restricted security, it may nevertheless be subject to other limitations on transfer. For example, for securities that are traded in certain foreign markets, government approval may be required for the repatriation of investment income, capital, or the proceeds of sales of securities by foreign investors.⁵⁶²

⁵⁵⁹ See Proposing Release, *supra* footnote 9, at section III.B.2.g (discussing the proposed requirement for a fund to consider restrictions on trading and limitations on transfer in classifying the liquidity of each portfolio asset).

⁵⁶⁰ See Rule 144A Release, *supra* footnote 37, at text following n.62.

⁵⁶¹ See *id.* While we are withdrawing the guidance in the Rule 144A Release, including the guidance that boards are responsible for determining if a security is liquid or illiquid, we note that the guidance factors discussed in the Rule 144A Release are consistent with certain of the guidance factors discussed in this Release.

⁵⁶² See, e.g., HSBC Comment Letter; HSBC Global Research, Emerging Markets Currency Guide 2012 (Dec. 2011), available at https://www.hsbcnet.com/gbm/attachments/rise-of-the-rmb/currency-guide-2012.pdf?WT.ac=CIBM_gbm_pro_rmbrise_pbx01_On; see also Liquidity Coverage Ratio Release, *supra* footnote 520, at section II.B.3.iv (discouraging banking entities from holding a disproportionate amount of their eligible highly qualified liquid assets in locations outside the United States where unforeseen impediments may prevent timely repatriation of such assets during a liquidity crisis).

Portfolio investments furthermore may be subject to certain contractual limitations on transfer.⁵⁶³ Securities subject to transfer limitations in general are less liquid than securities without such limitations.

5. *Liquidity Classification Review Requirement*

Under rule 22e-4 as adopted today, a fund would be required to review its portfolio investments' classifications at least monthly in connection with reporting the liquidity classification for each portfolio investment on Form N-PORT, as well as more frequently if changes in relevant market, trading, and investment-specific considerations are reasonably expected to materially affect one or more of its investments' classifications.⁵⁶⁴ A fund generally could classify and review the liquidity classifications of its portfolio investments according to their asset class; however, the fund must separately classify and review any investment within an asset class if the fund or its adviser, after reasonable inquiry, has information about any market, trading, or investment-specific considerations that are reasonably expected to significantly affect the liquidity characteristics of that investment as compared to other securities within that asset class.⁵⁶⁵

⁵⁶³ See, e.g., Stephen H. Bier, Julien Bourgeois & Joseph McClain, *Mutual Funds and Loan Investments*, THE INVESTMENT LAWYER: COVERING LEGAL AND REGULATORY ISSUES OF ASSET MANAGEMENT, Vol. 22, No. 3 (Mar. 2015), at 2, available at <http://www.dechert.com/files/Uploads/Documents/FSG/Mutual%20Funds%20and%20Loan%20Investments%20-%20The%20Investment%20Lawyer.pdf> (“[M]any loans and assignment trades remain bespoke transactions that require consents from borrowers or key syndicate members, and loan documents are still negotiated written documents that require human review. As a result. . .the mechanics of loan trades and certain trade settlement times cause funds to carefully monitor liquidity considerations surrounding loan investments [In making such determinations, funds] typically consider factors common to general liquidity determinations, as well as factors specific to the loan markets, which can include: (i) the legal limitations on the transferability or sale of a loan including the requirement to obtain consents from borrowers or syndicate agents and members prior to assignment; (ii) the existence of a trading market for the loans and the estimated depth of the market; (iii) the frequency of trades or quotes for the loan; (iv) the estimated length of the settlement period; and (v) the borrower’s health.”).

⁵⁶⁴ See rule 22e-4(b)(1)(ii).

⁵⁶⁵ See rule 22e-4(b)(1)(ii)(A).

As discussed in the Proposing Release, the Commission has previously stated that it “expects funds to monitor portfolio liquidity on an ongoing basis to determine whether, in light of current circumstances, an adequate level of liquidity is being maintained.”⁵⁶⁶ Some have interpreted this statement to mean that the Commission does not intend for a fund to reassess the liquidity status of *individual* securities on an ongoing basis, but instead to monitor whether a fund *portfolio*’s overall liquidity profile is appropriate in light of its redemption obligations.⁵⁶⁷ While we agree that a fund should monitor the liquidity of its portfolio holistically, we note that the decreased liquidity of individual portfolio components can directly affect the ability of a fund to meet its redemption obligations without significant dilution of remaining investors’ interests in the fund.⁵⁶⁸ We thus believe that specifically requiring a fund to review the classifications of its portfolio investments made under rule 22e-4 would reduce the risk that a fund would be unable to meet its redemption obligations without significant investor dilution.

As proposed, rule 22e-4 would have required a fund to review its liquidity classifications on an ongoing basis.⁵⁶⁹ Also, like the proposed classification requirement, the proposed review requirement would have required a fund to take into account a list of specified factors, as the fund determines applicable, in reviewing its portfolio assets’ liquidity.⁵⁷⁰ In the Proposing Release, we stated that a fund may wish to determine the frequency of ongoing review of

⁵⁶⁶ See Proposing Release, *supra* footnote 9, at nn.246-248 and accompanying text (citing Guidelines Release, *supra* footnote 38, at section II).

⁵⁶⁷ See *id.*, at n.247 (citing Investment Company Institute, *Valuation and Liquidity Issues for Mutual Funds* (Feb. 1997), at 45).

⁵⁶⁸ See, e.g., Third Avenue Temporary Order, *supra* footnote 12 (“On December 9, 2015, after considering the environment the Fund was in and the likelihood that incremental sales of portfolio securities to satisfy additional redemptions would have to be made at prices that would unfairly disadvantage all remaining shareholders, the Board determined that the fairest action on behalf of all shareholders would be to adopt a plan of liquidation.”); see also Heartland Release, *supra* footnote 80.

⁵⁶⁹ Proposed rule 22e-4(b)(2)(i).

⁵⁷⁰ Proposed rule 22e-4(b)(2)(ii).

portfolio positions’ liquidity classifications based in part on the liquidity of its portfolio holdings, as well as the timing of its portfolio acquisitions and turnover.⁵⁷¹ In addition, we noted in the Proposing Release that, at a minimum, a fund would review its liquidity classifications at least monthly in order to accurately report this information on proposed Form N-PORT.⁵⁷² Proposed rule 22e-4 did not include provisions that would permit a fund to review its portfolio assets’ liquidity on an asset-class basis.

We sought comment in the Proposing Release about the proposed ongoing review requirement. Several commenters suggested that the Commission adopt a general liquidity classification review requirement, without incorporating specific factors that a fund would be required to consider during the course of its review.⁵⁷³ One commenter argued that the frequency of the proposed review requirement was unclear and recommended that the Commission adopt more specific standards associated with review frequency.⁵⁷⁴ Multiple commenters expressed concerns about the potential burden associated with an “ongoing” review requirement⁵⁷⁵ and suggested that these concerns could be mitigated by replacing the proposed requirement to classify the liquidity of each portfolio position with a “top-down” requirement permitting funds to classify their portfolio assets’ liquidity on an asset-class basis.⁵⁷⁶

We believe that the review requirement we are adopting, together with the rule provision specifying that a fund would generally be permitted to review its liquidity classifications with

⁵⁷¹ See Proposing Release, *supra* footnote 9, at text accompanying n.252.

⁵⁷² See *id.*, at n.253.

⁵⁷³ See, e.g., CFA Comment Letter; Vanguard Comment Letter.

⁵⁷⁴ See Better Markets Comment Letter.

⁵⁷⁵ See, e.g., Dechert Comment Letter; ICI Comment Letter I; LSTA Comment Letter; T. Rowe Comment Letter.

⁵⁷⁶ See, e.g., LSTA Comment Letter.

reference to its holdings' asset classes, advances our goal of requiring funds to appropriately re-evaluate the liquidity of their portfolio holdings, while responding to commenters' concerns. As discussed in the Proposing Release, we understand that some funds currently may not review the liquidity of their portfolio investments on a continuing basis after they are acquired.⁵⁷⁷ In particular, we understand that certain funds may initially determine that certain investments are liquid or illiquid but will not regularly re-evaluate these initial classifications, even in light of changing market conditions. We understand that some funds, on the other hand, currently reassess the liquidity of their portfolio investment regularly based on market-wide developments, as well as events affecting particular securities or asset classes.⁵⁷⁸

Rule 22e-4 as adopted requires a fund to review its liquidity classifications at least monthly, in connection with reporting its liquidity classifications monthly on Form N-PORT.⁵⁷⁹ This requirement responds to the recommendation that the Commission adopt more specific standards associated with review frequency. Moreover, in order to determine whether its holdings are consistent with the fund's highly liquid investment minimum, as well as the rule 22e-4 limitation on illiquid investments, a fund would have to determine whether its initial classification determinations have changed based on market conditions or other developments. Therefore, rule 22e-4 also includes the requirement for a fund to review its liquidity classifications more frequently than monthly if changes in relevant market, trading, and investment-specific considerations are reasonably expected to materially affect one or more of its

⁵⁷⁷ See Proposing Release, *supra* footnote 9, at paragraph accompanying n.250.

⁵⁷⁸ See *id.*, at n.250 and accompanying text; see also ICI Comment Letter I.

⁵⁷⁹ See rule 22e-4(b)(1)(ii).

investment classifications.⁵⁸⁰ For example, relevant market-wide developments could include changes in interest rates or other macroeconomic events, market-wide volatility, market-wide flow changes, dealer inventory or capacity changes, and extraordinary events such as natural disasters or political upheaval.⁵⁸¹ Asset-class and investment-specific developments that a fund may wish to consider include, among others, regulatory changes affecting certain asset classes and corporate events (such as bankruptcy, default, pending restructuring, or delisting, as well as reputational events). We believe that the rule’s requirement that a fund review its liquidity classifications at least monthly, as well as more frequently in light of market-related and other changes that could materially affect a fund’s investment classifications, will provide funds with more direction as to the frequency of their classification reviews, as well as circumstances that could lead to a classification review, than the proposed ongoing review requirement.

We believe that the review requirement we are adopting, as opposed to the proposed ongoing review requirement, permits funds to tailor their review of liquidity classifications in light of the liquidity character of a fund’s portfolio investments. The modifications to rule 22e-4 clarify that we do not expect a fund to constantly reassess all of its portfolio investments’ liquidity. Also, the review requirement that we are adopting would not require a fund to consider a detailed list of specific factors in the course of conducting its liquidity classification reviews. Instead, as discussed above, it would require a fund to take into account “relevant market, trading, and investment-specific considerations” in reviewing its investments’ liquidity.⁵⁸²

Finally, the review requirement that we are adopting, like the rule 22e-4 classification

⁵⁸⁰ See *id.*

⁵⁸¹ See, e.g., 2014 Fixed Income Guidance Update, *supra* footnote 94.

⁵⁸² See rule 22e-4(b)(1)(ii).

requirement, would permit a fund to generally review its portfolio investments' liquidity according to their asset class (provided that the fund must identify, and separately review, any investment within an asset class that the fund determines should be reviewed separately based on its liquidity characteristics).⁵⁸³ We believe that this approach will permit funds to increase their efficiency in classifying and reviewing portfolio investments' liquidity.

6. *Liquidity Classification Reporting and Disclosure Requirements*

In connection with the liquidity classification requirement of rule 22e-4, we are requiring, largely as proposed and with certain modifications in response to comments, a fund to report the liquidity classification assigned to each of the fund's portfolio investments on Form N-PORT.⁵⁸⁴ Position-level liquidity classification information will be reported to the Commission in a structured data format on a confidential basis rather than released every three months to the public.⁵⁸⁵ Under the final rules, a fund will also be required to publicly report on Form N-PORT the aggregated percentage of its portfolio investments that falls into each of the four liquidity classification categories outlined above.⁵⁸⁶ This aggregate information will be disclosed to the public only for the third month of each fiscal quarter with a 60-day delay. While we acknowledge that liquidity classification determinations may be to some extent subjective and

⁵⁸³ See rule 22e-4(b)(1)(ii)(A).

⁵⁸⁴ Rather than report the liquidity classification among six categories as under the proposal, funds will be required to report liquidity classifications among four liquidity categories, which may be based on asset type to the extent discussed above. See Item C.7. of Form N-PORT. We have modified the numbering convention for items within Form N-PORT from the proposal to be consistent with Form N-PORT as adopted in the Investment Company Reporting Modernization Adopting Release.

⁵⁸⁵ See General Instruction F of Form N-PORT.

⁵⁸⁶ Item B.8.a. of Form N-PORT. We note that such reporting is designed to serve as a snapshot of a fund's liquidity on the last business or calendar day of the month. See rule 30b1-9 under the Investment Company Act (requiring reporting on Form N-PORT to be current as of the last business day, or last calendar day, of the month). Accordingly, the aggregate percentage of portfolio investments in each of the four liquidity classification categories need not reflect pending transactions, but instead should reflect the balance of investments in each category on the last business or calendar day of the month.

that such information reported on Form N-PORT may be non-standardized, we believe that, on balance, our staff, investors, and other potential users would benefit from the information that will be reported on Form N-PORT that currently may not be reported or disclosed by funds. We believe that this greater transparency about liquidity at the fund-level will provide our staff, investors, and other potential users with a helpful picture of the general liquidity characteristics of funds and help them better understand the liquidity risks associated with a particular fund. We also believe that this information will help investors make more informed investment decisions.

As part of this public disclosure, a fund would publicly disclose the percentages of its highly liquid investments that are segregated to cover, or pledged to satisfy margin requirements in connection with, the fund's derivatives transactions that the fund has classified in the moderately liquid, less liquid, and illiquid investments classification categories in light of the requirement in rule 22e-4 that the liquidity classification cover each of the fund's derivatives transactions, discussed above.⁵⁸⁷ This derivatives transactions information will also be made public for the third month of each fiscal quarter with a 60-day delay.

Most commenters opposed the proposed Form N-PORT reporting requirement, and particularly objected to having position-level liquidity information reported on Form N-PORT made public.⁵⁸⁸ We believe that the additions to Form N-PORT adopted today in this Release address many of these concerns. We discuss these additions, the comments we received on the proposal, as well as modifications we made to the proposal in response to comments, in more

⁵⁸⁷ Item B.8.b. of Form N-PORT. This derivatives transactions reporting requirement corresponds to the modification in rule 22e-4(b)(1)(ii)(C), discussed above.

⁵⁸⁸ See, e.g., Cohen & Steers Comment Letter; NYC Bar Comment Letter; SIFMA Comment Letter I; Wellington Comment Letter.

detail below.

a. Reporting Liquidity Classification of Portfolio Investments

We proposed to require a fund to report on Form N-PORT the liquidity classification of each of the fund's positions (or portions of a position) in a portfolio asset using the proposed classification system of rule 22e-4.⁵⁸⁹ As discussed above, most commenters opposed the proposed classification regime, and many offered varied classification alternatives for fund liquidity risk management and reporting purposes. As discussed previously, we are today adopting a liquidity classification requirement under rule 22e-4 based on a "days-to-cash" framework as proposed, but with a number of modifications informed by commenter recommendations that we believe address many commenters' concerns about the classification process itself.

A number of commenters supported reporting liquidity classifications to the Commission on Form N-PORT, provided that it was not publicly disclosed.⁵⁹⁰ For example, one commenter expressed support for reporting position-level liquidity classifications to the Commission, noting that the Commission should have the data it needs to monitor fund holdings and liquidity determinations, examine potential outliers, and, if an unexpected market event occurs (*e.g.*, the default of a significant institution), quickly assess the potential impact on mutual funds it supervises.⁵⁹¹ Another commenter expressed the belief that the proposed liquidity classifications

⁵⁸⁹ See Proposing Release, *supra* footnote 9, at section III.G.2.a.

⁵⁹⁰ See, *e.g.*, Dechert Comment Letter; Interactive Data Comment Letter; J.P. Morgan Comment Letter; Nuveen Comment Letter. Some commenters suggested that the Commission evaluate reported classification data for a period of time to determine whether the information is appropriate for public disclosure. See BlackRock Comment Letter; Fidelity Comment Letter; SIFMA Comment Letter III.

⁵⁹¹ See J.P. Morgan Comment Letter.

data could be appropriate for Commission oversight purposes.⁵⁹²

On the other hand, a few commenters objected to reporting liquidity classifications, as proposed, even if such information is disclosed only to the Commission.⁵⁹³ Some commenters stated that there is limited utility in the proposed classification information for the Commission since the information would be subjective and methodology-specific, which would lead to results that would preclude comparisons across funds, limiting the utility of this information for the Commission's monitoring of industry-wide data.⁵⁹⁴ In addition, one commenter expressed concerns about the security of sensitive information filed with the Commission due to recent high-profile cybersecurity breaches both in the governmental and private sectors.⁵⁹⁵

We continue to believe that requiring funds to report the liquidity classification of their portfolio investments is vital to our ongoing monitoring and oversight efforts. A key goal of the rulemaking is to allow us to monitor funds' liquidity profiles (both on a fund-by-fund basis and across funds) over time, and respond as appropriate. Absent the required reporting on Form N-PORT, our ability to engage in such efforts would be limited and less efficient. We believe that the changes made to the classification system discussed above should serve to mitigate commenters' concerns about the difficulties of making comparisons across the industry, in light of the reduced number of categories for classification. We recognize that there is still likely to be variation between funds in how they classify certain asset classes and investments, and believe that despite any variations, this liquidity information will be useful and valuable to us.

⁵⁹² See State Street Comment Letter.

⁵⁹³ See Federated Comment Letter; Fidelity Comment Letter; Invesco Comment Letter; SIFMA Comment Letter I.

⁵⁹⁴ See, e.g., BlackRock Comment Letter; Fidelity Comment Letter; Wellington Comment Letter.

⁵⁹⁵ See Invesco Comment Letter.

We will be able to identify different fund liquidity classification practices, and use that information to gain insight into how different funds view liquidity in the market, and whether there are any identifiable liquidity concerns. We also note that despite any concerns about variation of practices across funds limiting comparability, we expect that the reported information will allow us to generally monitor specific funds' liquidity on a consistent basis across time, and identify how their views of the liquidity of their investments change.

We believe that such information will assist us in better assessing liquidity risk in the open-end fund industry, which can inform our policy and guidance. We also believe that this information will assist us in monitoring for compliance with rule 22e-4 and identifying potential outliers in fund liquidity classifications for further inquiry, as appropriate. We recognize that liquidity classifications, similar to valuation- and pricing-related matters, inherently involve judgment and estimations by funds. We also understand that the liquidity classification of an asset class or investments may vary across funds depending on the facts and circumstances relating to the funds and their trading practices.⁵⁹⁶ We do not believe that data based on estimations of market conditions on a fund-by-fund basis is uninformative or of limited utility because of the information's sometimes fund-specific, subjective nature.⁵⁹⁷ Rather, we believe that even with potential variances in determinations, the liquidity information reported will be informative to the Commission. Furthermore, we believe that members of the fund industry are generally in the best position to provide current information on the conditions of fund liquidity

⁵⁹⁶ See, e.g., Comment Letter of the Investment Company Institute on Investment Company Reporting Modernization Release (Aug. 11, 2015) ("These [liquidity] judgments may differ among personnel and certainly among fund complexes."); Comment Letter of Invesco Advisers, Inc. on Investment Company Reporting Modernization Release (Aug. 11, 2015) ("Invesco and other fund complexes could reasonably differ in their assessments of the liquidity of a particular security, even though both complexes have a sound method for determining liquidity and follow their own reasonable procedures.").

⁵⁹⁷ See *supra* footnote 594 and accompanying text.

since they are in the markets every day trading securities and observe how markets are evolving and related liquidity characteristics are changing.

In sum, we believe that the modified reporting requirements on Form N-PORT will provide the Commission with meaningful data concerning the liquidity of portfolio investments across the fund industry and at the same time lessen burdens on funds classifying and reporting liquidity information (compared to the proposal). Accordingly, we are adopting the requirement for funds to report the liquidity classification of their portfolio investments to the Commission.

b. Non-Public Disclosure of Liquidity Classification Information Reported on Form N-PORT

We proposed that liquidity classification information reported on Form N-PORT at the portfolio position level be disclosed to the public for the third month of each fiscal quarter with a 60-day delay. One commenter expressed general support for regulatory initiatives aimed at improving transparency.⁵⁹⁸ Several commenters expressed support for public disclosure of liquidity information if the framework for classification was modified from the proposed six-category liquidity classification framework to alternative frameworks proposed by commenters that generally measured the liquidity of portfolio positions based on asset type and included less classification categories.⁵⁹⁹

On the other hand, most commenters opposed the proposed public disclosure of the liquidity classification. Some commenters expressed concerns that the value to the public of the position-level liquidity classification information on Form N-PORT, as proposed, would be

⁵⁹⁸ See Interactive Data Comment Letter.

⁵⁹⁹ See, e.g., Charles Schwab Comment Letter; FSR Comment Letter; Nuveen Comment Letter; Vanguard Comment Letter.

limited.⁶⁰⁰ Many other commenters expressed concerns that the public disclosure of the position-level liquidity classification information could be potentially misleading to investors for various reasons. For example, many commenters contended that, while the position-by-position information reported would be subjective, the numeric days-to-settlement presentation proposed on Form N-PORT could imply a false sense of precision of the data to fund investors.⁶⁰¹ Many of these commenters also argued that providing subjective, position-level liquidity classification information to the public could potentially result in misleading comparisons across funds,⁶⁰² with some commenters noting that such comparisons could disadvantage certain funds over others.⁶⁰³ While reports on Form N-PORT would be submitted to the Commission within 30 days after month end, some commenters voiced concerns that the liquidity data presented on Form N-PORT would be stale for the public given that the reports, as proposed, would be available every third month of a fund's fiscal quarter with a 60-day delay, adding to the risk of misleading investors about the real-time state of a portfolio's liquidity.⁶⁰⁴

Many commenters also expressed concerns that public disclosure of the proposed position-level liquidity classification information would ultimately harm fund shareholders and

⁶⁰⁰ See, e.g., Better Markets Comment Letter (expressing concerns that the proposal's three-day liquid asset minimum and 15% standard assets are determined by the fund and that the liquidity classifications reported on Form N-PORT would be stale information for the public); Morningstar Comment Letter (also stating concerns that the information available to the public under the proposal would be stale and expressing the belief that investors could find it difficult to compare the liquidity characteristics of portfolios from different funds).

⁶⁰¹ See, e.g., Dechert Comment Letter; Eaton Vance Comment Letter I; Federated Comment Letter; LSTA Comment Letter; Morningstar Comment Letter.

⁶⁰² See, e.g., BlackRock Comment Letter; IDC Comment Letter; J.P. Morgan Comment Letter; Voya Comment Letter.

⁶⁰³ See, e.g., BlackRock Comment Letter; IDC Comment Letter; ICI Comment Letter I; Wellington Comment Letter.

⁶⁰⁴ See, e.g., FSR Comment Letter; LSTA Comment Letter; Morningstar Comment Letter (noting that given public disclosure on N-PORT would be provided infrequently, the information might well be very out of date when an investor reviews it, thereby providing little benefit to investors); NYC Bar Comment Letter.

the fund market for a variety of reasons. Some commenters argued that public reporting would facilitate predatory trading practices, particularly during periods of liquidity stress, ultimately harming fund investors.⁶⁰⁵ Commenters expressed the belief that public reporting of liquidity classifications at the position-level exacerbates these concerns, noting, for example, that in the event a fund experiences a liquidity issue, public information about its portfolio-level liquidity classifications may expose the fund to predatory trading.⁶⁰⁶ In addition, several commenters expressed concern that public reporting of position-level liquidity classifications could be harmful to the fund market, arguing that such reporting would incentivize homogenized liquidity determinations and comparative liquidity “ratings” from third-party service providers,⁶⁰⁷ as well as “window dressing” at period ends prior to disclosure, increasing the potential for systemic risks in the fund industry.⁶⁰⁸ Other commenters suggested that the Commission evaluate reported classification data for a period of time to determine whether the information is appropriate for public disclosure.⁶⁰⁹

While many of these commenters objected to the proposed position-level public disclosure of liquidity classifications, several commenters did not object to making more aggregated portfolio-level disclosure of liquidity data available to the public.⁶¹⁰ These

⁶⁰⁵ See BlackRock Comment Letter (stating that publicly available position-level data exacerbated Third Avenue’s troubles as other market participants knew of the holdings of the Focused Credit Fund and used that information to the detriment of the fund). See also *e.g.*, Federated Comment Letter; ICI Comment Letter I; SIFMA Comment Letter I; Voya Comment Letter.

⁶⁰⁶ See, *e.g.*, SIFMA Comment Letter I.

⁶⁰⁷ See, *e.g.*, Charles Schwab Comment Letter; Wellington Comment Letter; Comment Letter of Wellington Management Company LLP (June 10, 2016) (“Wellington Comment Letter II”); Wells Fargo Comment Letter.

⁶⁰⁸ See, *e.g.*, Dechert Comment Letter; LSTA Comment Letter; NYC Bar Comment Letter; Oppenheimer Comment Letter.

⁶⁰⁹ See, *e.g.*, BlackRock Comment Letter; Fidelity Comment Letter; SIFMA Comment Letter I.

⁶¹⁰ See, *e.g.*, Nuveen Comment Letter; T. Rowe Comment Letter.

commenters suggested that, while position-level liquidity data may pose concerns as discussed above, providing the public a portfolio-level “roll up” of the liquidity levels of the fund may provide useful data and would be unlikely to raise the same kind of issues.⁶¹¹

We recognize that the level of position-level detail necessary for the Commission and our staff to effectively monitor fund liquidity may not be necessary for other users. We understand that some data collectors would prefer to use information reported on Form N-PORT proposed under the Investment Company Reporting Modernization proposal (which we are adopting concurrently), such as monthly portfolio holdings data, rather than the classification information proposed in the liquidity proposal.⁶¹² Furthermore, we understand that for many investors, the proposed specific position-level liquidity data would be likely unnecessarily detailed, and that aggregated or “rolled up” portfolio-level information about fund liquidity may be more easily understandable and usable. As discussed below, such aggregated information will likely result in more user friendly and digestible portrayals of fund liquidity, and at the same time we expect will avoid many of the potential harms suggested by commenters that might result from position-level disclosure to the public. Such a layered reporting and disclosure regime should allow the Commission and investors each to access the liquidity information likely most useful for their purposes.

We also appreciate the limitations and subjectivity of the liquidity classification process, and thus understand the risks of investors potentially giving too much weight to a fund manager’s individual liquidity classification choices. The classification of portfolio investments at the position-level under the days-to-cash framework involves a number of assumptions and

⁶¹¹ See, e.g., Nuveen Comment Letter; T. Rowe Comment Letter.

⁶¹² See Morningstar Comment Letter.

methodologies that could result in classifications that vary from fund to fund. As a result, the liquidity classification information reported for the same or similar asset classes and investments could vary because of complex differences in methodologies and assumptions that may not be reported on Form N-PORT nor easily explained to investors but would be available to the Commission in inspections.⁶¹³

We appreciate the concerns raised by commenters that reporting publicly position-level data could imply a false sense of precision about the liquidity profile of a fund and that, given the delay in the public reporting of portfolio-level classification information (60 days after quarter-end), the position-level information will likely be out of date when reviewed by investors. While we can take these potential variances in liquidity classifications of assets into account in evaluating and using the data for the Commission's purposes in observing potential trends in liquidity profiles across the fund industry, it may be more difficult to explain them to investors. Furthermore, the Commission would receive portfolio-level classification information within 30 days of month-end, thereby increasing the utility of the classification information for Commission purposes. We expect that providing only aggregated liquidity classification information on the funds' portfolio assets publicly may mitigate some of these concerns. This level of detail should appropriately focus investors on the fund's general liquidity profile and general trends in fund liquidity rather than individual security-level liquidity decisions, in light of the concerns discussed above.

Some commenters also raised concerns that public reporting of liquidity classifications at the position level could potentially expose investors to harm, including, for example, potentially

⁶¹³ A fund has the option of providing explanatory notes related to its filing to explain any of its methodologies, including related assumptions, in Part E of Form N-PORT. See Instruction G to Form N-PORT.

exposing a fund to predatory trading, particularly during periods of liquidity stress.⁶¹⁴ We believe, however, that the aggregated public disclosure on Form N-PORT once each quarter with a 60-day lag would alleviate these predatory trading concerns given that those engaged in predatory trading would not have information about a fund's own assessment of its liquidity characteristics in real-time and would not have the detailed position-level information in real time necessary to pursue such strategies.

For these reasons, we find that it is neither necessary nor appropriate in the public interest or for the protection of investors to make liquidity classification information for each portfolio investment publicly available.⁶¹⁵ We also are adopting amendments to Form N-PORT to require a fund to publicly disclose the aggregated percentage of its portfolio assets representing each of the four classification categories outlined in Form N-PORT and related rule 22e-4,⁶¹⁶ as discussed in more detail below. We believe that providing liquidity classification data attributable to each portfolio investment to the Commission and fund-level data to investors is an efficient approach to present liquidity information in a manner that both satisfies the Commission's need for position-level liquidity data for its regulatory oversight purposes and provides useful fund liquidity information to investors.

In addition, the Commission recognizes the importance of sound data security practices and protocols for non-public information, including information that may be competitively sensitive. The Commission has substantial experience with storage and use of non-public

⁶¹⁴ See, e.g., ICI Comment Letter; Cohen and Steers Comment Letter; Dechert Comment Letter; Nuveen Comment Letter.

⁶¹⁵ See section 45(a) of the Investment Company Act, which requires information in investment company forms to be made available to the public, unless we find that public disclosure is neither necessary nor appropriate in the public interest or for the protection of investors. See also General Instruction F of Form N-PORT.

⁶¹⁶ See Item B.8. of Form N-PORT.

information reported on Form PF and delayed public disclosure of information on Form N-MFP (although the Commission no longer delays public disclosure of reports on Form N-MFP), as well as other non-public information that the Commission handles in its ordinary course of business. Commission staff is carefully evaluating the data security protocols that will apply to non-public data reported on Form N-PORT in light of the specific recommendations and concerns raised by commenters. Drawing on its experience, the staff is working to design controls and systems for the use and handling of Form N-PORT data in a manner that reflects the sensitivity of the data and is consistent with the maintenance of its confidentiality.⁶¹⁷ In advance of the compliance date, we expect that the staff will have reviewed the controls and systems in place for the use and handling of non-public information reported on Form N-PORT.

c. Public Fund-Level Aggregate Liquidity Profile Reporting

As previously discussed, we are adopting, with modifications, the proposed requirement that funds report to the Commission on a non-public basis the liquidity classification assigned to each portfolio position on Form N-PORT. Some commenters expressed concerns that the value to the public of the position-level liquidity classification information on Form N-PORT, as proposed, would be limited.⁶¹⁸ Other commenters recommended that, as an alternative to the proposal, the Commission make available to the public a general assessment of the liquidity of the portfolio at the fund level, rather than the individual security level,⁶¹⁹ with more detailed

⁶¹⁷ See Reporting by Investment Advisers to Private Funds and Certain Commodity Pool Operators and Commodity Trading Advisors on Form PF, Investment Advisers Act Release No. 3308 (Oct. 31, 2011) [76 FR 71228 (Nov. 16, 2011)]. We recognize that there are differences between the N-PORT reporting requirements and the Form PF reporting requirements, such as frequency, granularity, and registration status, and our recognition of these differences guides our evaluation of appropriate measures for preservation of data security for reported information.

⁶¹⁸ See, e.g., Better Markets Comment Letter; Morningstar Comment Letter.

⁶¹⁹ See, e.g., Dechert Comment Letter; Federated Comment Letter; LSTA Comment Letter; NYC Bar Comment Letter.

information, including the fund's assessment of the liquidity of each asset at the individual security level, provided to the Commission but kept confidential.⁶²⁰

We appreciate these comments and recognize that position-level liquidity classification data, while valuable for Commission purposes, may be of limited use for everyday investors. We find persuasive commenters' recommendations to provide the public with a general assessment of the liquidity of a portfolio at the fund level as an approach to provide everyday investors useful information on fund liquidity. As a result, we are adopting amendments to Form N-PORT to require a fund to publicly report for the third month of each fiscal quarter with a 60-day delay the aggregate percentage of its portfolio representing each of the four classification categories outlined in Form N-PORT and related rule 22e-4.⁶²¹ For purposes of this reporting item, a fund would report the aggregate percentage of investments that are assets in each liquidity category compared to total portfolio investments that are assets (not including liabilities) of the fund.⁶²²

In order to avoid misleading investors about the actual availability of highly liquid investments to meet redemptions, a fund also will be required to publicly report on Form N-PORT the percentage of its highly liquid investments that it has segregated to cover, or pledged to satisfy margin requirements in connection with, derivatives transactions that are classified as moderately liquid, less liquid, or illiquid investments.⁶²³ As discussed above, we proposed to require a fund to consider the relationship of an asset to another portfolio asset in classifying the liquidity of its portfolio assets reported on Form N-PORT and to consider guidance that a fund

⁶²⁰ See, e.g., SIFMA Comment Letter I; Charles Schwab Comment Letter.

⁶²¹ See Item B.8.a. of Form N-PORT.

⁶²² See id.

⁶²³ See Item B.8.b. of Form N-PORT; see also *supra* section III.C.3.c.

should classify the liquidity of assets segregated to cover derivatives obligations using the liquidity of the derivative instruments such assets are covering.⁶²⁴ One commenter suggested that the Commission add an item to the Schedule of Portfolio Investments on Form N-PORT that permits a fund to note whether an asset (or portion thereof) is encumbered or linked to other assets as of the reporting date.⁶²⁵ Another commenter suggested that the Commission require funds to assign liquidity classifications to cover assets on an aggregate portfolio basis in amounts corresponding to the aggregate amount of derivatives exposure in each liquidity category.⁶²⁶

In consideration of the commenters' recommendations, we believe that our modification to the proposal to require a fund to report publicly the percentage of the fund's highly liquid investments that are segregated to cover, or pledged to satisfy margin requirements in connection with, the fund's derivatives transactions that are classified in each liquidity category strikes an appropriate balance between providing investors with useful information about the impact of derivatives coverage obligations on the percentage of a fund's highly liquid investments and lessening operational burdens associated with classifying investments. Since the public will only receive asset liquidity classification information on an aggregate level and only the Commission will receive liquidity classifications on an investment-by-investment basis, we believe that the suggested alternative to add an item to the Schedule of Portfolio Investments on Form N-PORT linking an asset encumbered to other assets in connection with derivatives transactions would not be a helpful means to inform investors about the connection between derivatives obligations and the availability of highly liquid investments to meet redemptions. We believe that without public

⁶²⁴ See Proposing Release, *supra* footnote 9, at section III.B.2; see also *supra* section III.C.3.c.

⁶²⁵ See ICI Comment Letter I; see also *supra* section III.C.3.c.

⁶²⁶ See Dechert Comment Letter; see also *supra* section III.C.3.c.

reporting of the percentage of a fund's highly liquid investments that are segregated to cover, or pledged to satisfy margin requirements in connection with, a fund's derivatives transactions that are not themselves highly liquid investments, the reported percentage of a fund's highly liquid investments could be potentially misleading to investors if a portion of highly liquid investments are not available to meet redemptions due to derivatives transactions obligations.

Overall, we continue to believe that investors currently have limited information about the liquidity of fund investments and would benefit from enhanced information to evaluate funds and assess the potential for returns and risks of a particular fund. We expect that many investors will use liquidity reporting information to better understand the liquidity risks associated with a particular fund for purposes of making more informed investment decisions and will benefit from aggregate information about a fund's overall liquidity. Moreover, we believe that requiring a fund to publicly disclose only the aggregate percentage of its portfolio assets representing each of the four classification categories balances commenters' concerns about certain adverse effects that could arise from public reporting of detailed portfolio liquidity information with investors' need for improved information about funds' liquidity risk profiles.

d. Illiquid Investments

As discussed above, rule 22e-4, as adopted, combines a fund's illiquid investment determinations with the general liquidity classification framework reported on Form N-PORT.⁶²⁷ In the Proposing Release, in connection with the codification of the 15% guideline that an open-end fund may not invest in the aggregate more than 15% of its net assets in "illiquid securities," we proposed to require funds to report on Form N-PORT whether each portfolio asset is a "15%

⁶²⁷

See supra section III.C.2.d.

standard asset,” as defined under the proposal,⁶²⁸ in addition to reporting the liquidity of each of the fund’s positions (or portions of a position) in a portfolio asset using six proposed categories.⁶²⁹ One commenter opposed requiring reporting of the 15% standard asset at the individual portfolio asset level, raising concerns that public disclosure could have adverse effects on funds.⁶³⁰ Another commenter opposed reporting of the 15% standard asset at the individual portfolio asset level if publicly disclosed in addition to the proposed six liquidity classification categories, stating that the distinction between the two pieces of data would make sense to industry experts but would be confusing and potentially misleading to typical investors.⁶³¹

After considering these comments, we agree that presenting to the public liquidity classification information and the 15% standard asset designation separately could potentially confuse investors. As discussed in more detail in section III.C previously, we believe that it is more appropriate to harmonize the rule 22e-4 limit on illiquid investments, referred to as 15% standard assets under the proposal, with the rule’s broader liquidity classification requirement by incorporating an illiquid investment category into the classification requirement. Likewise, we believe that this harmonization should be reflected in reports on Form N-PORT. Thus, we are adopting, modified from the proposal, an illiquid investment category into Form N-PORT that corresponds with rule 22e-4’s broader classification requirement.⁶³² By doing this, a fund’s exposure to illiquid investments may be viewed as part of the fund’s overall liquidity profile in a more clear and concise manner. Furthermore, we are persuaded by some of the concerns raised

⁶²⁸ See Proposing Release, *supra* footnote 9, at section III.G.2.b.

⁶²⁹ See Proposing Release, *supra* footnote 9, at section III.G.2.a.

⁶³⁰ See Cohen & Steers Comment Letter.

⁶³¹ See Federated Comment Letter.

⁶³² See Item C.7. of Form N-PORT.

by commenters regarding the unintended adverse effects that public disclosure of illiquid investment information on the portfolio position level could have on funds and fund investors. As adopted, liquidity classification information reported on the portfolio position level will be non-public on Form N-PORT, as discussed in more detail above.

We expect to use this information to monitor fund compliance with the prohibition of acquiring illiquid investments if the fund would have invested more than 15% of its net assets in illiquid investments that are assets and analyze liquidity trends in the fund industry. Overall, we believe that maintaining this information on illiquid investments as part of the liquidity classification information reported on Form N-PORT will provide the Commission with meaningful data, including information regarding exposure to illiquid investments across the fund industry.

D. Highly Liquid Investment Minimum

Today we are adopting a requirement that each fund determine its “highly liquid investment minimum,” or the minimum amount of the fund’s net assets that the fund invests in highly liquid investments that are assets.⁶³³ In determining its highly liquid investment minimum, a fund will be required to consider the factors the fund also has to consider, as applicable, in assessing its liquidity risk under rule 22e-4.⁶³⁴ Additionally, in determining whether a fund is meeting its highly liquid investment minimum, the fund will look only to its

⁶³³ Rule 22e-4(a)(7). Rule 22e-4(a)(7) refers to highly liquid investments that are “assets” to make clear that when evaluating whether a fund is meeting its highly liquid investment minimum, the fund should look to its investments with positive values. Highly liquid investments that have negative values should not be netted against highly liquid investments that have positive values when calculating whether the fund is meeting its highly liquid investment minimum. Thus, only highly liquid investments that have positive values (*i.e.*, “assets”) should be used in the numerator. *Cf. infra* footnote 744 (discussing the use of the term “assets” in the 15% limit on illiquid investments).

⁶³⁴ Rule 22e-4(b)(1)(iii)(A)(1).

investments that are assets of the fund.⁶³⁵ Rule 22e-4 as adopted today also requires a fund to adopt and implement policies and procedures for responding to a shortfall in a fund's highly liquid investments below its highly liquid investment minimum.⁶³⁶ These policies and procedures must include reporting to the fund's board of directors, no later than the board's next regularly scheduled meeting, regarding any shortfall of the fund's highly liquid investments compared to its minimum. A fund is required to report to its board within one business day, and submit a non-public report to the Commission, if its highly liquid investment minimum shortfall lasts more than seven consecutive calendar days.⁶³⁷ A fund's board of directors is not normally required to specifically approve the fund's highly liquid investment minimum, although during a time that a fund's highly liquid investments are below the fund's determined minimum level, a fund's highly liquid investment minimum can be changed only with board approval.⁶³⁸ Additionally, a discussion of the fund's minimum must be included in the written annual report to the board on the adequacy and effectiveness of the fund's liquidity risk management program. Funds whose portfolio assets consist primarily of highly liquid investments, as well as In-Kind ETFs, are not subject to the highly liquid investment minimum requirement.⁶³⁹

As described in more detail below, this requirement is a modification of the proposed "three-day liquid asset minimum," which also would have required a fund to determine the percentage of the fund's net assets to be invested in relatively liquid assets (under the proposal, "three-day liquid assets," or cash and any asset convertible to cash within three business days at

⁶³⁵ Rule 22e-4(a)(7).

⁶³⁶ Rule 22e-4(b)(1)(iii)(A)(3).

⁶³⁷ *Id.* See also Item D.1 of new Form N-LIQUID.

⁶³⁸ Rule 22e-4(b)(1)(iii)(A)(1).

⁶³⁹ Rule 22e-4(b)(1)(iii)(A); see also rule 22e-4(a)(5) (excluding money market funds and In-Kind ETFs from the definition of "fund").

a price that does not materially affect the value of that asset immediately prior to sale).⁶⁴⁰ In determining its three-day liquid asset minimum, the proposed rule would have required a fund to consider the factors the fund would have to consider, as applicable, in assessing its liquidity risk under rule 22e-4.⁶⁴¹ Under the proposal, a fund would have been prohibited from acquiring any asset other than a three-day liquid asset if, after acquisition, the fund would hold fewer three-day liquid assets than the percentage specified under its three-day liquid asset minimum.⁶⁴² Also under the proposal, a fund's board would have had to approve the fund's three-day liquid asset minimum and any changes thereto.⁶⁴³

The goal of the proposed three-day liquid asset minimum requirement was to increase the likelihood that a fund would hold adequate liquid assets to meet redemption requests without materially affecting the fund's NAV.⁶⁴⁴ The proposed three-day liquid asset minimum also was intended to be structured in a way that would foster consistency in funds' consideration of relevant liquidity risk factors, while permitting flexibility in implementing this liquidity risk management tool as appropriate given the diverse range of funds it would cover.⁶⁴⁵ It was intended to work together with other aspects of the proposed liquidity risk management program designed to help ensure that while funds would consider the spectrum of liquidity in their portfolios (in part through the proposed classification requirement), they would pay particular attention to the most liquid and least liquid ends of this spectrum.⁶⁴⁶

⁶⁴⁰ Proposed rule 22e-4(a)(8); proposed rule 22e-4(b)(2)(iv)(A)-(C).

⁶⁴¹ Proposed rule 22e-4(b)(2)(iv)(A).

⁶⁴² Proposed rule 22e-4(b)(2)(iv)(C).

⁶⁴³ Proposed rule 22e-4(b)(3)(i).

⁶⁴⁴ See Proposing Release, *supra* footnote 9, at section III.C.3.

⁶⁴⁵ *Id.*

⁶⁴⁶ See *id.*, at sections III.B.1, III.C and III.C.3.

Many commenters agreed that a requirement for a fund to determine a minimum—or, per some commenters’ suggestions, a target—amount of relatively liquid assets would assist funds in effectively meeting redemption requests under a variety of market conditions.⁶⁴⁷ Some, on the other hand, suggested that a minimum or target requirement would not necessarily enhance a fund’s ability to meet shareholder redemptions because the amount of liquid assets a fund may need is dynamic and unpredictable, and in extraordinary stressed market conditions no particular amount of liquid assets may end up being sufficient to meet redemptions.⁶⁴⁸ Commenters also objected to the structure of the proposed minimum requirement, particularly the fact that the requirement would not permit a fund to acquire relatively less liquid assets if the fund were to fall below its minimum, arguing that the requirement could actually increase shareholder redemptions during times of stress.⁶⁴⁹ In addition, commenters expressed concerns that the proposed requirement could prevent funds from meeting their principal investment strategies⁶⁵⁰ and that it could effectively prevent funds from holding or acquiring favorable, but relatively less liquid, assets under certain circumstances, which could intensify market stress as well as adversely affect a fund’s NAV.⁶⁵¹ Finally, some commenters expressed concerns about the potential operational burdens associated with the proposed three-day liquid asset minimum requirement.⁶⁵²

⁶⁴⁷ See, e.g., AFR Comment Letter; Charles Schwab Comment Letter; CRMC Comment Letter; Wells Fargo Comment Letter.

⁶⁴⁸ See, e.g., Dechert Comment Letter; HSBC Comment Letter; Invesco Comment Letter; MFS Comment Letter.

⁶⁴⁹ See, e.g., BlackRock Comment Letter; SIFMA Comment Letter I.

⁶⁵⁰ See, e.g., Invesco Comment Letter; Oppenheimer Comment Letter; Cohen & Steers Comment Letter; ICI Comment Letter I.

⁶⁵¹ See, e.g., BlackRock Comment Letter; Credit Suisse Comment Letter; ICI Comment Letter I; NYC Bar Comment Letter.

⁶⁵² See, e.g., Federated Comment Letter; ICI Comment Letter I.

Some commenters also suggested alternatives to the proposed three-day liquid asset minimum. As discussed further below, a number of commenters suggested requiring funds to maintain a “target” or threshold amount of certain liquid assets.⁶⁵³ Other commenters suggested requiring funds to consider whether to maintain a target amount of liquid assets⁶⁵⁴ or to adopt policies and procedures to address shareholder redemptions, which could include targets or ranges.⁶⁵⁵ As discussed below, we believe the highly liquid investment minimum requirement we are adopting strikes an appropriate balance in promoting the benefits intended by the proposed three-day liquid asset minimum requirement, including consistency in funds’ consideration of certain factors relevant to their liquidity risk management procedures, while at the same time lessening the likelihood of certain adverse consequences identified by commenters.

1. *Anticipated Benefits of Highly Liquid Investment Minimum*

Like the proposed three-day liquid asset requirement, we believe that the highly liquid investment minimum requirement will increase the likelihood that a fund would be prepared to meet redemption requests without significant dilution of remaining investors’ interests in the fund. Some commenters noted that it is common for funds to assess how much liquidity they may need under various market conditions in order to meet redemptions over a relatively short time horizon and suggested that targeting a certain level of relatively liquid assets is an appropriate way for a fund to manage its liquidity risk.⁶⁵⁶ To the extent that a fund already aims

⁶⁵³ See, e.g., Invesco Comment Letter (suggesting that funds be required to maintain a “target” range of three-day and/or seven-day liquid assets); PIMCO Comment Letter (suggesting that a minimum cash target could be established by the investment manager); BlackRock Comment Letter (suggesting that funds could be required to take several steps to ensure an appropriate level of Tier 1 and Tier 2 assets, which could be articulated as a range or target); Credit Suisse Comment Letter.

⁶⁵⁴ See, e.g., SIFMA Comment Letter I; Oppenheimer Comment Letter.

⁶⁵⁵ See, e.g., Dechert Comment Letter; IDC Comment Letter.

⁶⁵⁶ See, e.g., *supra* footnote 653.

to invest a specified portion of its portfolio in relatively liquid assets, we anticipate that such funds may already be substantially in compliance with the highly liquid investment minimum requirement we are adopting today. More importantly, it would require those funds that do not currently consider what an appropriate baseline level of liquidity might be to do so.

As with the proposal, we believe that the final highly liquid investment minimum requirement will help encourage consistency in funds' consideration of certain factors relevant to their liquidity risk management procedures. This is an important benefit compared to some commenters' suggestions that funds simply be required to have policies and procedures to address shareholder redemptions (which could include liquid asset minimums or targets), but not to specify any particular procedures within this general requirement.⁶⁵⁷ As with the proposal, we believe that the approach we are adopting appropriately encourages regularity and thoroughness in funds' consideration of certain risk factors, while at the same time promoting flexibility in funds' management of this risk. Under rule 22e-4 as adopted, a fund will be able to determine its own highly liquid investment minimum, as well as (within a fairly broad range) the assets it will hold to satisfy its minimum.⁶⁵⁸ We believe that the requirement we are adopting provides important additional flexibility to funds' liquidity risk management practices in that a fund will be required to adopt policies and procedures, but would be permitted to design them as appropriate to respond to shortfalls in highly liquid investments relative to the fund's minimum.

As noted above, some commenters suggested that a minimum requirement would not necessarily enhance funds' ability to meet shareholder redemptions. We agree that the highly liquid investment minimum requirement we are adopting, standing alone, may not be a sufficient

⁶⁵⁷ See *supra* footnote 655; see also *infra* section IV (discussing other reasonable alternatives to the highly liquid investment minimum requirement).

⁶⁵⁸ See rule 22e-4(b)(1)(iii)(A)(1).

safeguard for funds to manage liquidity risk under all market conditions. However, we believe that, together with the rest of the liquidity risk management program requirements we are adopting, it is a central tool to help put a fund in a solid position to meet redemption requests without significant dilution of remaining investors' interests. The highly liquid investment minimum requirement, together with the classification requirement and the 15% limitation on a fund's investments in illiquid investments that are assets, is meant to be a primary component of a fund's overall approach to liquidity risk management. While the classification requirement would illustrate the spectrum of a fund's portfolio liquidity, the highly liquid investment minimum requirement and the 15% limitation on illiquid investments would focus the fund's attention on each end of that liquidity spectrum—the fund's most liquid and least liquid investments, respectively.

Based on a fund's liquidity risk assessment, the fund could determine what additional liquidity risk management tools, if any, together with the highly liquid investment minimum requirement and the 15% limitation on illiquid investments, would best permit the fund to meet redemptions and help prevent significant investor dilution. We also believe that the highly liquid investment minimum requirement will be a useful liquidity risk management tool because we understand, based on staff outreach and comments that we received on the proposal, that the requirement we are adopting is similar to liquidity risk management strategies that many funds currently use.⁶⁵⁹

While certain commenters expressed concern that the proposed three-day liquid asset minimum requirement could unduly encourage funds to use only their most liquid assets in meeting redemptions (which commenters argued could lead to additional redemptions from

⁶⁵⁹ See *supra* footnote 656 and accompanying text.

funds in stressed periods),⁶⁶⁰ we note that the minimum requirement—both as proposed and as adopted—was never meant to suggest that a fund should only, or primarily, use its most liquid investments to meet shareholder redemptions.⁶⁶¹ Nor is it meant, as commenters argued, to suggest that funds should hold cash-like buffers that investors may inappropriately assume will eliminate funds’ liquidity risk.⁶⁶² Indeed, we noted in the Proposing Release that assets eligible for inclusion in a fund’s three-day liquid asset minimum holdings could include a broad variety of securities, as well as cash and cash equivalents.⁶⁶³ Moreover, because the final highly liquid investment minimum requirement would not prohibit a fund from acquiring investments other than highly liquid investments if a fund were to fall below its minimum, we believe that the final requirement may convey more effectively than the proposal that a fund is not guaranteed to hold a certain level of cash or highly liquid investments at all times.

As with the proposed three-day liquid asset minimum requirement, we believe an important feature of the highly liquid investment minimum requirement we are adopting is the flexibility it provides for a fund to determine an appropriate highly liquid investment minimum considering its particular risk factors, as well as (within a fairly broad range) the assets it will hold to satisfy its minimum. We acknowledge that, for certain funds that currently have relatively less liquid portfolios, the highly liquid investment minimum requirement could cause a fund to modify its investment strategy if, after consideration of the required factors, the fund were to determine it is appropriate to invest in higher amounts of highly liquid investments. In

⁶⁶⁰ See, e.g., BlackRock Comment Letter.

⁶⁶¹ See, e.g., Proposing Release, *supra* footnote 9, at section II.B.2 (discussing how funds may choose to sell assets in “strips” or in a range of liquidity).

⁶⁶² See, e.g., CFA Comment Letter.

⁶⁶³ See Proposing Release, *supra* footnote 9, at paragraph following n.343.

these circumstances, we believe such a modification would be appropriate. We discuss the costs associated with any modifications to funds' investment strategies that could result from the final highly liquid investment minimum requirement in the Economic Analysis section below.

2. *Consideration of Liquidity Risk Factors*

Rule 22e-4 requires a fund to consider the liquidity risk factors set forth in the rule, as applicable, in determining its highly liquid investment minimum.⁶⁶⁴ Under the proposed rule, a fund likewise would have been required to consider the proposed rule's liquidity risk assessment factors in determining its three-day liquid asset minimum.⁶⁶⁵ Several commenters suggested that these factors should be guidance that funds *may* consider in setting a minimum or target for relatively liquid assets, but should not be mandatory considerations a fund would be required to assess.⁶⁶⁶ Commenters also objected to the requirement that funds determine their three-day liquid asset minimum based on liquidity risk under both normal and reasonably foreseeable stressed conditions, arguing that this requirement would result in funds being forced to maintain artificially high levels of three-day liquid assets.⁶⁶⁷ Some commenters also discussed more granular objections to certain of the proposed factors to be used in determining a fund's three-day liquid asset minimum, such as certain aspects of the proposed requirements to consider a fund's shareholder concentration⁶⁶⁸ and borrowing arrangements.⁶⁶⁹

We continue to believe it is appropriate for a fund to be required—not only permitted—to

⁶⁶⁴ Rule 22e-4(b)(1)(iii)(A)(1).

⁶⁶⁵ Proposed rule 22e-4(b)(2)(iv)(A)-(B).

⁶⁶⁶ *See, e.g.*, Oppenheimer Comment Letter; Charles Schwab Comment Letter; SIFMA Comment Letter I.

⁶⁶⁷ *See, e.g.*, NYC Bar Comment Letter; SIFMA Comment Letter I.

⁶⁶⁸ *See* SIFMA Comment Letter I.

⁶⁶⁹ *See* Cohen & Steers Comment Letter.

consider a specified set of liquidity risk factors in determining its highly liquid investment minimum. We believe requiring every fund to consider multiple aspects of its history, policies, strategy, and operations in determining its highly liquid investment minimum will lead to a general industry-wide baseline for the minimum requirement. However, we are making certain modifications to the proposed liquidity risk factors, including only requiring funds to consider applicable factors, to respond to commenters' concerns about this aspect of the requirement.

a. Modifications to Proposed Requirement to Consider Liquidity Risk Factors

As discussed above, the liquidity risk factors we are adopting today incorporate certain modifications to the proposed factors,⁶⁷⁰ and thus these modifications flow through with respect to a fund's consideration of these factors in determining its highly liquid investment minimum. We believe that the guidance that we provide in section III.B.2 regarding a fund's consideration of these factors in assessing its liquidity risk also is appropriate for a fund to take into account when determining its highly liquid investment minimum. With the exception of the recommendations about specific factors or guidance discussed below, we did not receive comments on the proposed factors or the guidance provided in the Proposing Release regarding these factors.

Some commenters recommended that the Commission confirm that funds may consider and weigh the factors as they deem appropriate and relevant for purposes of the proposed minimum requirement,⁶⁷¹ and we agree that a fund should give the most weight to the factors that it deems most relevant for determining its highly liquid investment minimum. Moreover, to the extent any liquidity risk assessment factor is not applicable to a particular fund, the fund would

⁶⁷⁰ See *supra* section III.B.2.

⁶⁷¹ See, e.g., Oppenheimer Comment Letter; SIFMA Comment Letter I.

not be required to consider that factor in determining its highly liquid investment minimum. We have therefore added the words “as applicable” in the rule,⁶⁷² and we note that, in this context, the phrase “as applicable” is meant to refer to those factors that are relevant to a fund’s particular facts and circumstances. For example, a fund would not be required to consider the use of borrowings for investment purposes, as specified under rule 22e-4(b)(1)(i)(A), if that fund does not engage in borrowing.⁶⁷³ Conversely, however, a fund that maintains borrowing sources for investment purposes would be required to consider the use of borrowings for investment purposes as specified under the rule. The addition of “as applicable” should help respond to commenters’ concerns that codifying a list of required factors as a provision of the proposed minimum requirement would “create an overly rigid structure and a one-size-fits-all approach that may result in unnecessary focus on factors that are irrelevant to certain funds.”⁶⁷⁴

We continue to believe that a fund should consider both normal and reasonably foreseeable stressed conditions in determining the amount of highly liquid investments it will hold, based on the liquidity risk assessment factors. However, in a change from the proposal, the rule specifies that only those stressed conditions that are reasonably foreseeable *during the period until the next review of the highly liquid investment minimum* (emphasis added) should be considered when a fund determines its highly liquid investment minimum.⁶⁷⁵ As discussed above, some commenters expressed concern that the requirement for funds to consider normal

⁶⁷² See rule 22e-4(b)(1)(iii)(A)(1); see also *supra* footnote 192 and accompanying text.

⁶⁷³ See *supra* section III.B.2.

⁶⁷⁴ See SIFMA Comment Letter I; see also e.g., Charles Schwab Comment Letter; Oppenheimer Comment Letter (suggesting that it is critically important that funds be afforded a certain amount of flexibility in setting the fund’s three-day liquid asset minimum).

⁶⁷⁵ See rule 22e-4(b)(1)(iii)(A)(1); see also rule 22e-4(b)(1)(iii)(A)(2) (requiring funds to periodically review, no less frequently than annually, the highly liquid investment minimum).

and reasonably foreseeable stressed conditions in determining their three-day liquid asset minimum could suggest that all funds should hold a high level of cash or other highly liquid assets at all times, which could in turn encourage funds to maintain portfolio liquidity levels that are disproportionate relative to their liquidity risk.⁶⁷⁶ We believe that requiring consideration of only those stressed conditions that are reasonably foreseeable during the period until the next review of the highly liquid investment minimum should address commenters' concerns and should help ensure that the highly liquid investment minimum requirement leads funds to hold levels of portfolio liquidity that are appropriate in light of their reasonably anticipated liquidity risk.

This change also responds to commenters' concerns about perceived ambiguity in the length of time over which the proposed rule would have required funds to forecast the effect of stressed conditions on the liquidity risk factors.⁶⁷⁷ Under the final rule, funds are required to periodically review, no less frequently than annually, their highly liquid investment minimum. Thus, the requirement to consider stressed conditions only to the extent they are reasonably foreseeable *during the period until the next review of the highly liquid investment minimum*, limits consideration of stressed conditions to whatever time frame the fund has determined for review of its highly liquid investment minimum, but no longer than one year. We note that if a fund encounters extremely stressed market conditions, beyond those that were reasonably

⁶⁷⁶ See *supra* footnote 667 and accompanying text. Commenters argued that this, in turn, could lead to declines in fund performance, which shareholders would experience in the form of lower returns. See, e.g., Fidelity Comment Letter; Invesco Comment Letter; J.P. Morgan Comment Letter; Wells Fargo Comment Letter.

⁶⁷⁷ See, e.g., MFS Comment Letter (noting that the proposal fails to indicate the period of time over which the estimate of foreseeable redemptions is to be calculated); see also SIFMA Comment Letter I ("We do not agree, however, that in making their Highly Liquid Asset Target determinations, funds should be required to forecast the timing, severity or potential impact of stressed market conditions or other events affecting the fund that have occurred in the past but for which there is no reasonable way to accurately predict their recurrence.").

foreseeable during the period until the next review of the highly liquid investment minimum, that could increase its liquidity risk to unusual levels, the fund should consider adjusting its highly liquid investment minimum at that time, and indeed a fund should generally review its highly liquid investment minimum more frequently than annually if circumstances warrant.

b. Role of Liquidity Risk Factors in Determining the Highly Liquid Investment Minimum

As noted above, rule 22e-4 requires a fund to consider the liquidity risk factors set forth in the rule, as applicable, in determining its highly liquid investment minimum. In summary, a fund must consider, as applicable, its: (i) investment strategy and portfolio liquidity during normal conditions, and during stressed conditions to the extent such conditions are reasonably foreseeable during the period until the next review of the highly liquid investment minimum; (ii) short-term and long-term cash flow projections during normal conditions, and during stressed conditions to the extent such conditions are reasonably foreseeable during the period until the next review of the highly liquid investment minimum; and (iii) holdings of cash and cash equivalents, as well as borrowing arrangements and other funding sources.⁶⁷⁸ In addition to these factors, an ETF also must consider, as applicable: (i) the relationship between the ETF's portfolio liquidity and the way in which, and the prices and spreads at which, ETF shares trade, including the efficiency of the arbitrage function and the level of active participation by market participants (including authorized participants); and (ii) the effect of the composition of baskets on the overall liquidity of the ETF's portfolio.⁶⁷⁹

With respect to a fund's consideration of its investment strategy and portfolio liquidity in determining its highly liquid investment minimum, we continue to believe that the less liquid a

⁶⁷⁸ Rule 22e-4(b)(1)(i)(A)-(C); rule 22e-4(b)(1)(iii)(A)(1).

⁶⁷⁹ Rule 22e-4(b)(1)(i)(D)-(E); rule 22e-4(b)(1)(iii)(A)(1); *see also infra* section III.J. (discussing liquidity risk management program elements tailored to ETFs).

fund's overall portfolio investments are, the higher a fund may want to establish its highly liquid investment minimum. Similarly, funds with certain investment strategies that typically have had greater volatility of flows than other investment strategies — such as alternative funds and emerging market debt funds — would generally need highly liquid investment minimums that are higher than funds whose strategies tend to entail less flow volatility. For funds that use borrowings for investment purposes and derivatives, we continue to believe that, all else equal, a fund with a leveraged strategy (*e.g.*, a fund with leverage through bank borrowings or that has significant fixed obligations to derivatives counterparties) generally would need a highly liquid investment minimum that is higher than a fund that does not.⁶⁸⁰ Similarly, when setting the fund's highly liquid investment minimum, we believe a fund that has or expects to have a significant amount of highly liquid investments segregated to cover derivatives transactions or pledged to satisfy margin requirements in connection with derivatives transactions should take into account the fact that such segregated or pledged highly liquid investments may not be available to meet redemptions. However, this guidance is not meant to suggest that a fund should only, or primarily, use highly liquid investments to meet shareholder redemptions. Rather, in the examples provided in this paragraph, we believe that holding a relatively high level of assets that are highly liquid investments would *both* support a fund in meeting

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See Proposing Release, *supra* footnote 9, at paragraphs accompanying n.339. As discussed in the Proposing Release, we believe that a leveraged fund has an increased risk that it will be unable to meet redemptions and an increased risk of investor dilution compared to an equivalent fund with no leverage. For example, a fund with leverage through bank borrowings may have to meet margin calls if a security the fund provided to the bank to secure the loan declines in value. Such margin calls can render highly liquid portfolio assets unavailable to meet investor redemptions, which can increase dilution and the risk the fund will be unable to meet redemptions.

Similarly, a fund that has significant fixed obligations to derivatives counterparties (for example, from a total return swap or writing credit default swaps) must pay out on these obligations when due, even if it means selling the fund's more liquid, high quality assets to raise cash. *See, e.g.*, OppenheimerFunds Release, *supra* footnote 223.

redemption requests in a manner that does not dilute non-redeeming shareholders, and assist the fund in readjusting its portfolio as necessary to handle stressed conditions, weathering periods of heightened volatility, and managing its obligations to derivatives counterparties.

Regarding a fund's cash flow projections, we continue to believe that the Commission's cash flow guidance considerations could be useful to a fund in setting its highly liquid investment minimum.⁶⁸¹ We generally expect that a fund would evaluate the Commission's guidance on these considerations and determine whether each would be useful and relevant in setting the fund's highly liquid investment minimum. In addition, a fund may wish to consider employing some form of stress testing⁶⁸² or consider specific historical redemption scenarios in determining its highly liquid investment minimum.

Each of the cash flow guidance considerations—either standing alone, but especially viewed in combination with one another—are potentially significant features that could materially affect the risk of significant redemptions and thus could influence a fund's determination of its highly liquid investment minimum. For example, a fund with a concentrated shareholder base has a high risk that only one or two shareholders deciding to redeem can cause the fund to sell a significant amount of assets, which depending on the liquidity of the fund's portfolio and how it meets those redemptions, can dilute remaining shareholders. Similarly, a fund whose redemption policy is to satisfy all redemptions on a next business day basis (T+1) or that is sold through distribution channels that historically attract investors with more volatile

⁶⁸¹ See *supra* section III.B.2.b. These five guidance considerations include: (i) the size, frequency, and volatility of historical purchases and redemptions of fund shares during normal and reasonably foreseeable stressed periods; (ii) the fund's redemption policies; (iii) the fund's shareholder ownership concentration; (iv) the fund's distribution channels; and (v) the degree of certainty associated with the fund's short-term and long-term cash flow projections.

⁶⁸² See *supra* footnote 196 and accompanying text.

and/or unpredictable flows also should consider setting a higher minimum level for its assets that are highly liquid investments than a fund that, all else equal, does not face these risks.

In setting a highly liquid investment minimum, a fund should consider the degree of certainty associated with the fund's short-term and long-term cash flow projections. Projections may only be as good as the extent and quality of information that informs them. For example, if a fund does not have substantial visibility into its shareholder base (*e.g.*, because the fund's shares are principally sold through intermediaries that do not provide shareholder transparency) or if a fund is uncertain about changing market conditions which are likely to materially affect the fund's level of net redemptions, it may make projections but be quite uncertain about the reliability of those projections. In these circumstances, a fund should consider setting its highly liquid investment minimum to reflect this uncertainty, for example, by providing a cushion or multiple of its cash flow projections in the event realized net redemptions are significantly higher.

One commenter objected that shareholder ownership concentration, which is discussed in this Release as a guidance factor that could be used in evaluating cash flows (but in the proposal would have been *required* to be considered in analyzing a fund's cash flow projections), should not be a determinative consideration for a fund in establishing its appropriate level of relatively liquid assets.⁶⁸³ This commenter expressed concern that “accentuating the significance of this sub-factor in the context of new or recently launched funds, which may have a small number of shareholders relative to more established funds, could have a severe anti-competitive effect and create an unwarranted barrier to the introduction of new funds.” We agree that emphasizing shareholder concentration could lead new funds to increase their holdings of relatively liquid

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See SIFMA Comment Letter I.

investments. However, we note that substantial shareholder concentration, even for new or recently launched funds, could give rise to significant liquidity risk, and thus this consideration should not be discounted when a fund whose investor base is significantly concentrated determines its highly liquid investment minimum.⁶⁸⁴ New or recently launched funds that have a concentrated shareholder base should consider disclosing the risk of redemption by one or more such shareholders in the fund's prospectus.⁶⁸⁵ To the extent that a new fund's shareholder base becomes significantly less concentrated as the fund matures, the fund may wish to take this into consideration in reviewing its highly liquid investment minimum and adjusting it as it determines appropriate.

With respect to a fund's consideration of its holdings of cash and cash equivalents in determining its highly liquid investment minimum, we continue to believe that these holdings may provide funds with important flexibility to manage their liquidity risks. Our staff has observed that it is relatively common for fund complexes to target a minimum amount of cash or cash equivalent holdings in the fund, with the assumption that cash and cash equivalent holdings would allow the fund to meet redemptions in a stressed period without realizing significant discounts to its holdings' carrying values when they are sold. Holding cash or cash equivalents also could readily permit funds to rebalance or otherwise adjust a portfolio's composition in order to manage liquidity risk. Similarly, the availability of a line of credit or other funding sources to meet redemptions could assist a fund in managing liquidity risk, although as discussed

⁶⁸⁴ As discussed above, a fund may also take into account the types of shareholders in the fund and whether those shareholders share common investment goals affecting redemption frequency and timing. Additionally, a fund may take into account other liquidity risk management tools available to it, such as redemption fees, when determining its highly liquid investment minimum.

⁶⁸⁵ See SIFMA Comment Letter I (suggesting that the Commission encourage such prospectus disclosure). We recognize that other factors, such as the size of a fund's positions and the liquidity of those positions, could impact the extent to which this risk could affect the fund.

below, depending on the nature of use, the use of a line of credit could raise other issues.⁶⁸⁶ To the extent that a fund determines that any of these considerations could indicate decreased liquidity risk, these considerations could provide important inputs regarding the level that the fund deems appropriate for its highly liquid investment minimum.

Certain commenters indicated that the Commission should permit a fund to reduce its required holdings of relatively liquid assets by the amount of other sources of liquidity available to the fund, such as a committed line of credit.⁶⁸⁷ Under these commenters' views, if a fund were to determine that its highly liquid investment minimum would typically be x% of the fund's net assets, a fund with a committed line of credit representing y% of the fund's net assets should be able to reduce its highly liquid investment minimum to x% minus y% of the fund's net assets. We disagree with this approach for several reasons. First, we believe that a mechanical subtraction of the amount of a credit line available to a fund from the fund's highly liquid investment minimum is inappropriate under circumstances in which all or part of the line of credit is not guaranteed to be available to a fund—for example, because it is a committed line of credit that may be shared among other members of the fund family. Even if the credit facility was committed just to the fund, the amount ultimately available could depend on the financial health of the institution providing the facility, as well as the terms and conditions of the facility. Finally, as discussed in the Proposing Release, while a line of credit can facilitate a fund's ability to meet unexpected redemptions and can be taken into consideration when determining its highly liquid investment minimum, we continue to believe that liquidity risk management is better

⁶⁸⁶ See *infra* footnote 688 and accompanying text.

⁶⁸⁷ See, e.g., Cohen & Steers Comment Letter; Oppenheimer Comment Letter.

conducted primarily through construction of a fund’s portfolio.⁶⁸⁸

As with the proposed three-day liquid asset minimum requirement, a fund would be required to maintain a written record of how its highly liquid investment minimum was determined, including an assessment of each of the factors.⁶⁸⁹ This would permit our examination staff to ascertain that funds are indeed considering the required factors, as applicable. As discussed in the Proposing Release, we continue to generally believe that it would be extremely difficult to conclude, based on the factors that a fund would be required to consider, that a highly liquid investment minimum of zero would be appropriate.⁶⁹⁰

3. *Highly Liquid Investment Minimum Shortfall Policies and Procedures*

Under rule 22e-4, a fund will be required to adopt specific policies and procedures for responding to a shortfall in the fund’s assets that are highly liquid investments below its highly liquid investment minimum (for purposes of this section, a fund’s “shortfall policies and procedures”). A fund’s shortfall policies and procedures, as described in more detail below, must include reporting to the fund’s board of directors no later than the board’s next regularly scheduled meeting with a brief explanation of the causes of the shortfall, the extent of the

⁶⁸⁸ See Proposing Release, *supra* footnote 9, at section III.C.3; see also, e.g., HSBC Comment Letter (“The degree to which a fund employs leverage can have a material impact on its liquidity demands, particularly during periods of market stress. As such, attempts to model liquidity risk should incorporate an assessment of leverage and the extent to which this might intensify liquidity demands for a given fund during different scenarios compared to unleveraged funds.”); Nuveen FSOC Notice Comment Letter, *supra* footnote 85 (“Funds without credit lines face the possibility of not being able to sell sufficient assets to raise cash to fund redemption requests, or having to sell assets at significantly discounted values. To the extent that a fund draws on a credit line to meet net redemptions (and thus temporarily leverages itself), it increases its market risk at a time when markets are stressed. While this can be potentially beneficial to long-term performance if the asset class recovers, it increases the risk of loss to remaining shareholders if markets continue to weaken.”).

⁶⁸⁹ See rule 22e-4(b)(3)(iii); see also *infra* section III.I.

⁶⁹⁰ See Proposing Release, *supra* footnote 9, at paragraphs accompanying and following n.341.

shortfall, and any actions taken in response.⁶⁹¹ Also, a fund’s shortfall policies and procedures must include reporting within one business day to the fund’s board if a shortfall lasts more than seven consecutive calendar days, including an explanation of how the fund plans to restore its minimum within a reasonable period of time.⁶⁹²

a. Shortfall Policies and Procedures Requirement

Rule 22e-4 as proposed did not include the requirement for a fund to adopt shortfall policies and procedures. This requirement replaces the proposed prohibition against acquiring any asset other than a three-day liquid asset if a fund’s holdings of three-day liquid assets were to drop below its three-day liquid asset minimum (for purposes of this section, the “proposed acquisition limit”).⁶⁹³ As discussed above, commenters expressed concerns that the proposed acquisition limit could have adverse effects on funds, their shareholders, and the markets in which funds operate. Specifically, commenters cautioned that shareholder redemptions could increase if shareholders observe that a large redemption has taken place and assume that the fund will not be able to effectively employ its investment strategy due to the proposed prohibition on acquiring any assets that are not three-day liquid assets.⁶⁹⁴ Commenters suggested that this, in turn, could incentivize shareholders to redeem quickly in times of stress, which could spark additional redemptions from funds in stressed periods. Some commenters also argued that the proposed acquisition limit could lead index funds to hold a level of relatively liquid assets that causes them to deviate from the construction of their indices⁶⁹⁵ and could cause funds that are

⁶⁹¹ See rule 22e-4(b)(1)(iii)(A)(3).

⁶⁹² See *id.*

⁶⁹³ See proposed rule 22e-4(b)(2)(iv)(C).

⁶⁹⁴ See, e.g., BlackRock Comment Letter.

⁶⁹⁵ See, e.g., Invesco Comment Letter; Dechert Comment Letter; Oppenheimer Comment Letter.

managed relative to a benchmark to experience higher tracking error.⁶⁹⁶ Commenters also maintained that the proposed acquisition limit could impair actively managed funds to the extent that it could limit portfolio managers' discretion to purchase assets that they believe would maximize funds' returns.⁶⁹⁷

In addition, commenters argued that the proposed acquisition limit could effectively prevent funds from holding or acquiring favorable, but relatively less liquid, assets under certain circumstances, which could intensify market stress as well as adversely affect a fund's NAV.⁶⁹⁸ For example, some commenters suggested that a fund whose three-day liquid asset holdings were to fall below its minimum could feel pressure to sell less liquid assets in order to replenish its three-day liquid assets, which could lead to excessive sales of less liquid assets during times of market stress that could adversely affect the fund's NAV.⁶⁹⁹ Relatedly, commenters suggested that the proposed acquisition limit could produce harmful market effects if it were to significantly increase the demand for relatively liquid assets, which could conversely decrease demand for other asset types (making them less liquid) and exacerbate market volatility.⁷⁰⁰ Commenters expressed concern that any "herding" behavior that could result from the proposed acquisition limit could become especially pronounced during stressed periods.⁷⁰¹ Commenters also argued that the proposed acquisition limit could prevent a fund manager from purchasing certain investments that it views as undervalued in a downturn, when the fund's holdings of

⁶⁹⁶ See, e.g., HSBC Comment Letter; ICI I Comment Letter.

⁶⁹⁷ See, e.g., PIMCO Comment Letter; ICI I Comment Letter; Federated Comment Letter.

⁶⁹⁸ See, e.g., BlackRock Comment Letter; SIFMA I Comment Letter; Wells Fargo Comment Letter.

⁶⁹⁹ See, e.g., Oppenheimer Comment Letter.

⁷⁰⁰ See, e.g., Invesco Comment Letter; Cohen & Steers Comment Letter; ICI Comment Letter I; Wells Fargo Comment Letter.

⁷⁰¹ See, e.g., ICI Comment Letter I; Wellington Comment Letter II.

three-day liquid assets are at or below the fund's minimum.⁷⁰² They contended that this in turn could reduce the fund's universe of potential investments and ability to invest in contrarian and countercyclical ways,⁷⁰³ which could eliminate a potential pool of buyers and thus could exacerbate an already stressed environment.⁷⁰⁴

A significant number of commenters suggested that the Commission adopt a liquid asset target in lieu of the proposed three-day liquid asset minimum requirement—indeed, this was the most common alternative suggestion to the proposed three-day liquid asset minimum requirement.⁷⁰⁵ One primary distinction between the target requirements that commenters recommended and the proposed three-day liquid asset minimum requirement is that a target requirement would not prohibit a fund from acquiring certain assets if a fund's holdings of relatively liquid assets were to fall below the target. Instead, some commenters stated that a fund should have a reasonable period to respond to a shortfall of relatively liquid assets below the fund's target, and/or that any such shortfalls must be reported to the fund's board.⁷⁰⁶

We continue to believe that fund shareholders' interests are generally best served when the percentage of a fund's assets invested in relatively liquid investments is at (or above) the level deemed appropriate by the fund.⁷⁰⁷ The highly liquid investment minimum requirement we are adopting would not prohibit a fund from acquiring assets other than highly liquid investments when a fund's highly liquid investments fall below its minimum. However, we believe that the

⁷⁰² See, e.g., ICI Comment Letter I.

⁷⁰³ See, e.g., BlackRock Comment Letter; ICI Comment Letter I; Wells Fargo Comment Letter.

⁷⁰⁴ See, e.g., SIFMA Comment Letter I; Invesco Comment Letter

⁷⁰⁵ See, e.g., *supra* footnote 653 and accompanying text; see also *infra* section IV.C (discussing other reasonable alternatives to the highly liquid investment minimum requirement).

⁷⁰⁶ See, e.g., Invesco Comment Letter; PIMCO Comment Letter; Federated Comment Letter; J.P. Morgan Comment Letter.

⁷⁰⁷ See Proposing Release, *supra* footnote 9, at n.346 and accompanying text.

shortfall policies and procedures requirement we are adopting—which replaces the proposed acquisition limit—provides flexibility while also promoting effective liquidity management practices. We believe this requirement also responds to concerns about a flat prohibition against purchasing certain assets when the fund’s assets that are highly liquid investments drop below a certain level.

Additionally, we believe that the shortfall policies and procedures requirement responds appropriately to commenters’ concerns that there could be appropriate reasons for a fund to acquire an investment other than a highly liquid investment if a fund were to fall below its minimum. The final highly liquid investment minimum requirement will require that funds determine a level of assets that are highly liquid investments designed to help them manage the fund through stressed conditions or opportunistically readjust their portfolios, while permitting a fund’s portfolio liquidity to fall below this level when determined appropriate from a risk management perspective or on account of extenuating circumstances. The shortfall policies and procedures requirement, including the reporting requirement, is meant to foster discussion among the fund’s management (and board) if its assets that are highly liquid investments fall below the level the fund determined to be an appropriate minimum. We further believe that the final highly liquid investment minimum requirement appropriately responds to commenters’ concerns that the proposed acquisition limit could restrict funds’ ability to meet their principal investment strategies, to the detriment of fund investors. The final requirement provides fund managers more leeway than the proposed requirement to structure and modify their portfolios because—as would be the case in the target requirement commenters suggested—fund managers would not be prevented from purchasing certain assets when a fund’s holdings of assets that are highly liquid investments drop below its highly liquid investment minimum.

The highly liquid investment minimum requirement we are adopting, together with the shortfall policies and procedures requirement, also responds to commenters' concerns that the proposed acquisition limit could exacerbate potential market stresses and lead to other harmful market effects. Under the final rule, a fund that falls below its highly liquid investment minimum would not be restricted to acquiring only highly liquid investments, if acquiring other investments were consistent with the fund's shortfall policies and procedures. Also, as discussed above, the requirement that a fund determine its highly liquid investment minimum taking into account only those stressed conditions that are reasonably foreseeable during the period until the next review of the highly liquid investment minimum should decrease the probability that a fund could overweight its assets that are highly liquid investments relative to its liquidity risk. This also, in turn, should lessen demand for highly liquid investments compared to the possible market effects of the proposed requirement.

Finally, we believe that the final highly liquid investment minimum requirement, in conjunction with the shortfall policies and procedures requirement, will help to mitigate some of the operational burdens that commenters argued would accompany the proposal,⁷⁰⁸ while continuing to advance the Commission's goals. We note that the highly liquid investment minimum requirement will involve monitoring a fund's portfolio investments' liquidity for compliance. We recognize that this monitoring may result in operational costs, which could be greater for funds with multiple sub-advisers to the extent that these funds would need to build or

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See, e.g., Federated Comment Letter (suggesting that the proposed requirement could present significant operational and technological challenges because a fund's trade order management system would need to maintain the liquidity classification for each security in order to accurately monitor compliance with the fund's three-day liquid asset minimum); ICI Comment Letter I (noting that the proposed requirement would raise operational difficulties for funds with multiple sub-advisers because compliance would necessitate consideration of portfolio assets' liquidity at the fund level, and thus the proposal would require a significant amount of coordination among sub-advisers).

otherwise implement systems to coordinate portfolio liquidity information provided by each sub-adviser.⁷⁰⁹ However, we expect that the operational costs associated with the final highly liquid investment minimum requirement would be significantly less compared to the proposal, which would have entailed the additional costs of building systems that would bar the purchase of less liquid investments if the fund were to fall below its minimum. We understand that some fund complexes today already track a liquid asset minimum or target, and for these funds, operational costs associated with the final minimum requirement would only entail adjustments to their current processes and not the costs of an entirely new systems build-out.

b. Operation of Shortfall Policies and Procedures Requirement

Rule 22e-4 provides flexibility as to the particular shortfall policies and procedures a fund may adopt because we believe that different facts and circumstances could result in different funds taking different approaches to address a decline in assets that are highly liquid investments.⁷¹⁰ We also recognize that it may be difficult to contemplate or specify all appropriate factors to consider (or their weighting) in advance of a shortfall, and that part of the decision process requires an evaluation of the current stress event and a determination of whether it is likely to persist (and for how long). Nonetheless, a fund's shortfall policies and procedures could specify some of the actions that a fund could consider taking to respond to a highly liquid investment minimum shortfall under different conditions, as well as market- and fund-specific circumstances that could shape a fund's response to a particular shortfall occasion. For example, the policies and procedures could outline some of the circumstances under which it could be

⁷⁰⁹ See also *infra* paragraph accompanying footnote 818 (discussing the coordination of liquidity risk management efforts undertaken by various service providers, including a fund's sub-adviser(s)).

⁷¹⁰ For example, a fund may handle a shortfall due to changes in market conditions differently than a shortfall due to increased redemptions.

appropriate for a fund to purchase assets that are *not* highly liquid investments, despite being below its minimum. If, for example, the fund reasonably expected inflows in the near future (*e.g.*, from a retirement plan platform), it may determine it is acceptable to pursue an attractive buying opportunity despite a decline below the fund's highly liquid investment minimum that it expects to be short-term. It also could be appropriate, for example, for a fund to consider selling certain relatively less liquid holdings over a period of time and investing some of the proceeds in highly liquid investments.

Similarly, as part of its shortfall policies and procedures, a fund could set forth how it would set out a time frame by which it plans to bring its assets that are highly liquid investments back up to the level of its highly liquid investment minimum.⁷¹¹ If a fund encounters highly liquid investment minimum shortfalls regularly, a fund's liquidity risk management program administrator, potentially together with the fund's broader risk management function, should consider whether the fund's risk management policies and procedures should be modified. We note that a fund's shortfall policies and procedures could, but will not be required to, specify the persons who will typically determine how, if at all, to respond to a shortfall (for example, the person designated by the board to administer the fund's liquidity risk management program, in conjunction with the fund's risk managers and portfolio managers).

As discussed below, although we are not requiring a fund's board to specifically approve its highly liquid investment minimum, we continue to believe that the board should play an oversight role with respect to the minimum.⁷¹² A requirement to inform the board when a fund

⁷¹¹ If a fund's highly liquid investment minimum shortfall lasts more than seven consecutive calendar days, reporting to the fund's board within one business day is required, including an explanation of how the fund plans to restore its minimum within a reasonable period of time. See rule 22e-4(b)(1)(iii)(A)(3).

⁷¹² See *infra* section III.H.3.

drops below its highly liquid investment minimum, as well as the circumstances leading to the fund's highly liquid investment minimum shortfall and actions taken in response, will permit the board better to understand circumstances that may give rise to heightened liquidity risk. It also will provide important context for the board in evaluating the effectiveness of the fund's highly liquid investment minimum and the fund's liquidity risk management program generally. Many commenters suggested that the Commission should adopt a board reporting requirement when a fund's holdings of relatively liquid assets drop below the level that the fund has generally targeted as appropriate.⁷¹³ Rule 22e-4 as adopted generally reflects these suggestions.

As fund boards are charged with oversight and not day-to-day management of funds' liquidity risk, we believe that it is appropriate not to require that the fund's board be informed that the fund has dropped below its highly liquid investment minimum immediately when this occurs. Thus, rule 22e-4 requires that a fund's board be informed of a highly liquid investment minimum shortfall at the board's next regularly scheduled meeting.⁷¹⁴ If a fund were to drop below its highly liquid investment minimum multiple times prior to the next regularly scheduled board meeting, fund management could provide a single report to the board at that meeting discussing each of these occurrences.

However, we believe that when a fund's assets that are highly liquid investments are below its minimum for an extended period of time, this could indicate especially heightened liquidity risk, and thus under these circumstances it is appropriate to report a highly liquid

⁷¹³ See, e.g., J.P. Morgan Comment Letter (suggesting a breach would necessitate a report to the board); SIFMA I Comment Letter (suggesting a "highly liquid asset target" and noting that "[i]nstances where a fund dipped below its target percentage [could] be reported to the fund board with an explanation from management as to why the fund dipped below its target and any resulting impact on the fund's liquidity risk profile"); Invesco Comment Letter; Dechert Comment Letter.

⁷¹⁴ See rule 22e-4(b)(1)(iii)(A)(3).

investment minimum shortfall to the board within a shorter time frame. We are therefore adopting the requirement for a fund to report to its board of directors within one business day if its shortfall lasts longer than seven consecutive calendar days. Rule 22e-4 requires that this accelerated reporting include an explanation of how the fund plans to restore the fund's highly liquid investment minimum within a "reasonable" period of time. Fund management generally should take into account the fund's level of liquidity risk, as well as the facts and circumstances leading to the highly liquid investment minimum shortfall, in determining a reasonable time for returning the fund's assets that are highly liquid investments to the fund's minimum level.

4. *Periodic Review of Highly Liquid Investment Minimum*

Rule 22e-4 requires a fund to periodically review, no less frequently than annually, the fund's highly liquid investment minimum.⁷¹⁵ The proposed rule also included a periodic review requirement with respect to the proposed three-day liquid asset minimum, but instead of an annual minimum review requirement, the proposed rule would have required that the periodic review be conducted at least semi-annually.⁷¹⁶ We requested comment on this proposed review requirement generally, including the proposed minimum frequency of a fund's review. We received few comments on the proposed review requirement separate from general comments on the proposed three-day liquid asset minimum, although we received general support for a review requirement concerning a fund's target level of liquid assets.⁷¹⁷

We continue to believe, as discussed in the Proposing Release, that a periodic review is a

⁷¹⁵ See rule 22e-4(b)(1)(iii)(A)(2).

⁷¹⁶ See proposed rule 22e-4(b)(2)(iv)(B).

⁷¹⁷ See, e.g., Oppenheimer Comment Letter.

central component of the highly liquid investment minimum requirement we are adopting.⁷¹⁸

Although we proposed a minimum semi-annual review requirement, we are adopting a minimum annual review requirement primarily in order to correlate the minimum period for a fund's highly liquid investment minimum review with the minimum period in which a fund's board would be required to review a written report describing the adequacy of the fund's liquidity risk management program, as described in more detail below.⁷¹⁹ The minimum annual review period also would correlate with the requirement for a fund to review its liquidity risk periodically, but no less frequently than annually.⁷²⁰ We believe that correlating the time periods for each review requirement in rule 22e-4 will reduce compliance burdens and mitigate potential confusion that could arise from disparate review periods.

We also do not believe that extending the highly liquid investment minimum review period from a minimum of semi-annually to annually will adversely affect funds or investors as a fund generally should review its highly liquid investment minimum more frequently if circumstances warrant. Additionally, as discussed above, a fund's board will be regularly informed of any highly liquid investment minimum shortfalls. Thus, the board will be aware of any liquidity risk management issues that might warrant reconsideration of the fund's risk management procedures or its highly liquid investment minimum.

Like the requirement for a fund to periodically review its liquidity risk, the highly liquid investment minimum review requirement will permit each fund to develop and adopt its own procedures for conducting this review, taking into account the fund's particular facts and

⁷¹⁸ See Proposing Release, *supra* footnote 9, at paragraph following n.352.

⁷¹⁹ See *infra* section III.H.2.

⁷²⁰ See *supra* section III.B.3.

circumstances. Additionally, we believe that in developing comprehensive review procedures, a fund should generally consider including procedures for evaluating regulatory, market-wide, and fund-specific developments affecting the fund’s liquidity risk. A fund also may wish to adopt procedures specifying any circumstances that would prompt more frequent review of the fund’s highly liquid investment minimum in addition to the annual minimum review required by the rule (as well as the process for conducting more frequent reviews).⁷²¹

5. *Exclusion for Funds Primarily Holding Assets that are Highly Liquid Investments*

Rule 22e-4, as adopted, excludes a fund that primarily holds assets that are highly liquid investments (a “primarily highly liquid fund”) from the requirements to determine and review a highly liquid investment minimum, and to adopt shortfall policies and procedures.⁷²² We sought comment in the Proposing Release about whether we should exclude certain funds from the proposed three-day liquid asset minimum, such as funds that only invest in three-day liquid assets. Commenters argued that a requirement for a fund to determine a minimum portion of assets that it will invest in relatively liquid assets is not suitable for funds that primarily invest in highly liquid investment classes, given that a significant portion of the fund’s portfolio would be composed of such assets, and thus the benefits associated with the three-day liquid asset minimum requirement would not justify the burdens.⁷²³ After considering these comments and

⁷²¹ See, e.g., *supra* footnote 273 and accompanying paragraph; see also *supra* section III.D.2.a.

⁷²² See rule 22e-4(b)(1)(iii)(A).

⁷²³ See, e.g., FSR Comment Letter (“[T]he Commission should consider alternative regulatory approaches for index funds that seek to track the performance of indices that are comprised of highly liquid assets....”); Dechert Comment Letter (citing Statement on Open-End Fund Liquidity Risk Management Programs and Swing Pricing, Commissioner Daniel M. Gallagher, Securities and Exchange Commission (Sept. 22, 2015) (“Furthermore, for funds that invest solely in assets that can be settled in three days or less – for example, a fund that limits its investments to equity securities of S&P 500 companies – the ‘three-day bucket’ has no functional value. Requiring such a fund to set its three-day bucket – whether it be at 1%, or 20% or even 90% – would be a meaningless exercise given that the entire portfolio would be comprised of assets settled in three days or less.”)).

reevaluating the costs and benefits of the proposal, we agree that a primarily highly liquid fund should not be required to determine and review a highly liquid investment minimum, or adopt shortfall policies and procedures. We agree with commenters that the benefits associated with these requirements as applied to primarily highly liquid funds would not justify the associated burdens.⁷²⁴

Under rule 22e-4, a fund whose portfolio consists primarily of assets that are highly liquid investments would be excluded from the highly liquid investment minimum requirement.⁷²⁵ Thus, we anticipate that a primarily highly liquid fund would address in its liquidity risk management program how it determines that it primarily holds assets that are highly liquid investments, including, for example, how it defines “primarily.”⁷²⁶ If a fund were to modify its investment strategy or encounter strategy “drift” such that it no longer primarily held assets that were highly liquid investments, it would be required to adopt and review a highly liquid investment minimum, as well as adopt and implement policies and procedures for responding to a shortfall of the fund’s assets that are highly liquid investments below its minimum. We therefore believe that if a fund’s investment strategy is such that it cannot generally be predicted whether the fund would primarily hold assets that are highly liquid investments (for example, if the strategy were to entail a significant amount of volatility in terms of the fund’s portfolio liquidity), it would be difficult for the fund’s management to conclude that

⁷²⁴ For more discussion about the costs and burdens associated with the highly liquid investment minimum requirement, *see infra* section IV.C.

⁷²⁵ *See* rule 22e-4(b)(1)(iii)(A). Money market funds and In-Kind ETFs also would be excluded from the highly liquid investment minimum requirement. *See* rule 22e-4(a)(5) (defining “fund,” for purposes of the rule as excluding money market funds and In-Kind ETFs).

⁷²⁶ As noted by commenters, a highly liquid index fund would be one example of a fund whose portfolio consists primarily (in the case of these index funds, almost entirely) of assets that are highly liquid investments. *See supra* footnote 723. In our view, if a fund held less than 50% of its assets in highly liquid investments it would be unlikely to qualify as “primarily” holding assets that are highly liquid investments.

the fund should appropriately be excluded from the highly liquid investment minimum requirement.

For purposes of determining whether a fund primarily holds assets that are highly liquid investments, a fund must exclude from its calculations the percentage of the fund's assets that are highly liquid investments that it has segregated to cover derivatives transactions that the fund has classified as moderately liquid investments, less liquid investments, and illiquid investments, or pledged to satisfy margin requirements in connection with those derivatives transactions, as determined pursuant to rule 22e-4(b)(1)(ii)(C).⁷²⁷ As discussed above, when a fund's assets are segregated or pledged in connection with derivatives transactions, they may not be immediately available for liquidity risk management purposes.⁷²⁸ Thus, a fund whose assets that are highly liquid investments that are segregated or pledged in connection with derivatives transactions may not have the same level of liquidity risk management flexibility as a fund whose assets are highly liquid investments that are not similarly segregated or pledged. While we believe that the benefits associated with the highly liquid investment minimum requirements as applied to primarily highly liquid funds would not justify associated burdens,⁷²⁹ we believe that this consideration is appropriate only to the extent a fund primarily holds assets that are highly liquid investments that are not segregated or pledged in connection with derivatives transactions. As an extreme example, if a fund were to hold only assets that were highly liquid investments that were

⁷²⁷ Rule 22e-4(b)(1)(iii)(B). As described above, a fund would be permitted to exclude its derivatives transactions that are classified as highly liquid investments in determining the percentage of highly liquid investments that are segregated or pledged assets because, since the fund could dispose of or exit these derivatives transactions within three business days, the associated segregated or pledged assets also would be available to the fund for liquidity risk management purposes within three business days. *See supra* text following footnote 493.

⁷²⁸ *See supra* section III.C.3.c.

⁷²⁹ *See supra* footnote 724 and accompanying text.

segregated or pledged in connection with derivatives transactions and that were not themselves classified as highly liquid investments, none of its assets that were highly liquid investments would be available to meet redemptions or otherwise manage liquidity risk. Thus, we believe that such fund's assets that were highly liquid investments would likely not be commensurate with its liquidity risk profile as determined with reference to the liquidity risk factors it would be required to consider under rule 22e-4.⁷³⁰

6. *Highly Liquid Investment Minimum Reporting and Disclosure Requirements*

We proposed to amend Form N-PORT to add a new item that would require each fund to disclose its three-day liquid asset minimum, as such term was proposed to be defined in proposed rule 22e-4. One commenter supported reporting the three-day liquid asset minimum in a structured data format to the public as proposed.⁷³¹ Certain other commenters supported reporting the three-day liquid asset minimum in a structured data format as proposed but to the Commission only.⁷³² One commenter did not support public disclosure of a fund's three-day liquid asset minimum, as proposed, but said it would support public disclosure of a fund's three-day liquid asset minimum if the Commission adopted a recommended alternative to such definition.⁷³³

Some commenters, however, opposed public disclosure of both the three-day liquid asset minimum as proposed and recommended alternatives to the three-day liquid asset minimum.

⁷³⁰ See *supra* section III.D.2 (discussing the rule 22e-4 requirement for a fund to consider certain liquidity risk factors in determining its highly liquid investment minimum).

⁷³¹ See Charles Schwab Comment Letter (noting that information about the fund's liquidity risk management program will be particularly helpful to investors, as will disclosure of a fund's overall liquidity picture and a fund's three-day liquid asset minimum).

⁷³² See, e.g., CFA Comment Letter; Voya Comment Letter.

⁷³³ See Vanguard Comment Letter.

Commenters expressed concerns that public disclosure could be misleading to investors, arguing that any minimum reported on Form N-PORT would be subjective, presented without context, and may not reflect a fund's actual portfolio management approach at the time the data is being relied upon by investors.⁷³⁴ Other commenters contended that public disclosure could interfere with a fund's investment strategy and promote unwarranted, and potentially destabilizing, redemption activity by fund shareholders, especially during times of stress.⁷³⁵ One commenter stated that public disclosure of a liquidity minimum would also give undue emphasis to a single element of a fund's liquidity risk management program and could potentially encourage third parties to use a single numerical figure as a basis for comparing funds, further encouraging undue reliance on the liquidity minimum figure by investors.⁷³⁶ Certain other commenters expressed concern that public disclosure could potentially expose a fund to predatory trading activity if the fund is seen as vulnerable to liquidity risks or is under stress.⁷³⁷ In addition, one commenter contended that comparisons of three-day liquid asset minimums could result in competitive pressures for relatively uniform minimums among funds with similar investment strategies, ultimately harming fund investors.⁷³⁸

We are persuaded by some of the concerns expressed by commenters regarding the potential risks to funds and fund investors of public reporting of a fund's three-day liquid asset minimum, as proposed, or any alternative formulation, including a fund's highly liquid investment minimum, as adopted today. In response to comments, we are adopting amendments

⁷³⁴ See, e.g., Eaton Vance Comment Letter I; J.P. Morgan Comment Letter; NYC Bar Comment Letter; Voya Comment Letter.

⁷³⁵ See, e.g., Eaton Vance Comment Letter I; J.P. Morgan Comment Letter; Wells Fargo Comment Letter.

⁷³⁶ See SIFMA Comment Letter I.

⁷³⁷ See, e.g., Eaton Vance Comment Letter I; SIFMA Comment Letter.

⁷³⁸ See NYC Bar Comment Letter.

to require a fund to report its highly liquid investment minimum on Form N-PORT to the Commission on a non-public basis.⁷³⁹ We believe that the requirement that a fund report to its board when the fund's assets that are highly liquid investments fall below the fund's highly liquid investment minimum, discussed above, is a more appropriate tool to assist fund boards in their oversight of fund liquidity risks, thereby ultimately protecting shareholder interests in the fund.⁷⁴⁰

In light of the changes we are making to the way the highly liquid investment minimum is established, the final modifications to Form N-PORT require that if a fund's minimum has changed during the reporting period, any prior minimums established by the fund during the reporting period also be reported.⁷⁴¹ Because, as discussed previously, we are not requiring the fund's board to approve changes to the highly liquid asset minimum, we believe it is important that any changes to the minimum during a reporting period be included in Form N-PORT to help mitigate the possibility of window dressing a fund's highly liquid asset minimum at the end of the reporting period, and allow us to monitor for changes to a fund's minimum. In addition, considering the changes we have made to the way the minimum works from the proposal, and consistent with the board and Commission reporting requirements we are adopting relating to shortfalls of a fund's minimum, the final amendments to Form N-PORT also require that if a fund is below its minimum during the reporting period, a fund needs to report the number of days it is below its minimum during the reporting period.⁷⁴² We believe that this reporting requirement will enhance our monitoring of fund's compliance with the minimum and the board

⁷³⁹ See General Instruction F of Form N-PORT.

⁷⁴⁰ See *supra* section III.D.3.

⁷⁴¹ See Item B.7.c. of Form N-PORT.

⁷⁴² See Item B.7.b. of Form N-PORT.

and Commission reporting requirements contained elsewhere in rule 22e-4. These additional reporting requirements also would be non-public, for the same reasons discussed above.

Overall, we believe that such board oversight together with confidential reporting to the Commission is a regulatory approach that balances commenters' concerns about certain adverse effects that could arise from public reporting of liquid investment minimums with the need for enhanced investor protections and meaningful information for Commission regulatory oversight responsibilities. We believe that it is neither necessary nor appropriate in the public interest or for the protection of investors to make information regarding a fund's highly liquid investment minimum publicly available at this time.⁷⁴³

E. Limitation on Funds' Illiquid Investments

Rule 22e-4 includes a limit on a fund's ability to acquire illiquid investments. Specifically, the rule prohibits a fund from acquiring any illiquid investment if, immediately after the acquisition, the fund would have invested more than 15% of its net assets in illiquid investments that are assets.⁷⁴⁴ The rule's 15% limit on funds' illiquid investments applies to all funds (including In-Kind ETFs).⁷⁴⁵ Additionally, as discussed below, a fund will be required to notify its board, and confidentially the Commission, when its illiquid investments that are assets exceed 15% of its net assets. Moreover, the person(s) designated to administer the liquidity risk

⁷⁴³ See section 45 of the Act, which provides, in summary, that the information contained in any report or other document filed with the Commission pursuant to the Act shall be made available to the public, unless by rules and regulations upon its own motion, or by order upon application, the Commission finds that public disclosure is "neither necessary nor appropriate in the public interest or for the protection of investors."

⁷⁴⁴ Rule 22e-4(b)(1)(iv). Rule 22e-4(b)(1)(iv) refers to investments that are "assets" to make clear that the 15% limit on illiquid investments applies to investments with positive values. Illiquid investments that have negative values should not be netted against illiquid investments that have positive values when calculating compliance with the 15% limit. Thus, only illiquid investments that have positive values (*i.e.*, "assets") should be used in the numerator.

⁷⁴⁵ See *id.*; see also rule 22e-4(a)(5) and (9) (defining the terms "fund" and "In-Kind ETF" for purposes of the rule).

management program must explain in a report to the board the extent and causes of the occurrence, and how the fund plans to bring its illiquid investments that are assets to or below 15% of its net assets within a reasonable period of time.⁷⁴⁶ If the amount of the fund's illiquid investments that are assets is still above 15% of its net assets 30 days from the occurrence (and at each consecutive 30 day period thereafter), the board of directors, including a majority of its independent directors,⁷⁴⁷ must assess whether the plan presented to it continues to be in the best interest of the fund.

The limitation on funds' illiquid investments is similar to the limitation on "15% standard assets" in proposed rule 22e-4,⁷⁴⁸ in that both requirements would limit the acquisition of assets that cannot be sold or disposed of within seven days. However, there are several key differences between the proposed and adopted requirements. Specifically, the proposed rule would have had a fund identify 15% standard assets in a process separate from the requirement to classify portfolio assets' liquidity, whereas rule 22e-4 as adopted today generally incorporates classification of portfolio investments as illiquid into the process for classifying the liquidity of a fund's portfolio investments generally. As discussed in sections III.C.1.b and III.C.3.b above, a

⁷⁴⁶ Rule 22e-4(b)(1)(iv)(A).

⁷⁴⁷ "Independent directors" as used herein refers to directors who are not "interested persons" of a fund or In-Kind ETF, as applicable, as that term is defined in section 2(a)(19) of the Investment Company Act.

⁷⁴⁸ See Proposing Release, *supra* footnote 9, at section III.C.4. Under the proposed rule, "15% standard asset" was defined as "an asset that may not be sold or disposed of in the ordinary course of business within seven calendar days at approximately the value ascribed to it by the fund." Proposed rule 22e-4(a)(4). For purposes of this definition, a fund would not have needed to consider the size of the fund's position in the asset or the number of days associated with receipt of proceeds of sale or disposition of the asset. *Id.*

We note that, as proposed, the text of rule 22e-4 would have limited the acquisition of 15% standard assets if, immediately after the acquisition, the fund would have invested more than 15% of its *total assets* (as opposed to *net assets*) in 15% standard assets. See proposed rule 22e-4(b)(2)(iv)(D). This reference to "total assets" in the proposed rule text was intended to read "net assets," as was evident in the discussion of this rule provision in Proposing Release, section III.C.4 (and elsewhere in the Proposing Release), which consistently discussed the provision as limiting a fund's acquisition of 15% standard assets if, immediately after the acquisition, the fund would have invested more than 15% of its net assets in 15% standard assets. Rule 22e-4 as adopted refers to "net assets" instead of "total assets."

fund is required to take into account “relevant market, trading, and investment-specific considerations,” and also is required to consider market depth, in classifying an investment as illiquid. Also as discussed above in section III.C.2.d, rule 22e-4 incorporates a modified value impact standard in the definition of “illiquid investment” from the value impact standard reflected in the proposed definition of “15% standard asset.”

The majority of commenters supported the codification of the Commission’s 15% guideline as proposed. Many commenters stated that the 15% guideline is an important investor protection measure and posited that the guideline has proven to be a highly effective safeguard against liquidity risk.⁷⁴⁹ One commenter specifically noted that assets of open-end funds should be predominantly liquid and replacing the guideline with a formal regulatory mandate would promote investor protection.⁷⁵⁰ Another commenter viewed the 15% guideline as a clear safeguard against liquidity risk that has the benefits of simplicity, clarity, and easy administration.⁷⁵¹ One commenter stated that setting reasonable controls on, and monitoring the use of, illiquid asset classes to ensure that they do not compromise the liquidity offered to investors within the fund is an important element of properly managing open-end funds.⁷⁵² Finally, one commenter suggested that the proposed codification of the 15% guideline would both increase the likelihood that funds hold adequate liquid assets to meet redemption requests without significant dilution and increase the likelihood that a fund’s portfolio is not concentrated

⁷⁴⁹ See, e.g., Cohen & Steers Comment Letter; Eaton Vance Comment Letter I; FSR Comment Letter; LSTA Comment Letter.

⁷⁵⁰ See State Street Comment Letter.

⁷⁵¹ See Better Markets Comment Letter.

⁷⁵² See BlackRock Comment Letter.

in assets whose liquidity is limited.⁷⁵³

In addition, several commenters supported a limit on the amount of illiquid assets that can be held by a fund generally, but suggested alternatives to how the 15% standard would operate or the proposed definition of 15% standard assets.⁷⁵⁴ In fact, most commenters who expressed concerns regarding the proposed 15% limit did so in the context of suggesting alternatives to the proposal or the proposed definition of “15% standard asset.” Multiple commenters who discussed the proposed limit suggested that the Commission should harmonize its codification of the existing 15% guideline with the proposed requirement for a fund to classify the liquidity of its portfolio assets generally (*i.e.*, they suggested that illiquid assets be the least liquid classification category).⁷⁵⁵ Some commenters suggested that any limit on illiquid assets should not just limit the acquisition of illiquid assets, but also should require the fund to adjust its portfolio if it exceeds the 15% limit.⁷⁵⁶ Finally, some commenters suggested that a fund be required to notify its board and the Commission if it exceeds the 15% limit.⁷⁵⁷ All other comments on the proposed limit were comments regarding the definition of “15% standard asset” and are discussed above in section III.C.2.d.

We agree with commenters who stated that codifying a limit on funds’ illiquid investments should be a central element of managing open-end funds’ liquidity risk, which in

⁷⁵³ See CRMC Comment Letter.

⁷⁵⁴ See, *e.g.*, AFR Comment Letter; Blackrock Comment Letter; Keefer Comment Letter; Wahh Comment Letter. In general, the comments we received on the 15% standard did not specifically address the amount of the limit; *cf.* footnote 761 and accompanying text.

⁷⁵⁵ See, *e.g.*, Eaton Vance Comment Letter I; Federated Comment Letter; SIFMA Comment Letter I; Markit Comment Letter.

⁷⁵⁶ See, *e.g.*, Fidelity Comment Letter; Keefer Comment Letter; Wahh Comment Letter. *But see* HSBC Comment Letter (arguing that imposing a fixed time period in which holdings above the 15% threshold must be divested would not be appropriate because it may force sales at depressed prices to the detriment of investors).

⁷⁵⁷ See BlackRock Comment Letter; ICI Comment Letter I; SIFMA Comment Letter III.

turn would further the protection of investors. While we believe that the highly liquid investment minimum requirement will increase the likelihood that each fund holds adequate liquid assets to meet redemption requests without significant dilution of remaining investors' interests in the fund, the limit on illiquid investments also should increase the likelihood that a fund's portfolio is not concentrated in investments whose liquidity is extremely limited, and thus will serve as an across-the-board limit on fund illiquidity. As discussed above, the Commission and staff have in the past provided guidance in connection with the 15% guideline. Today we are withdrawing this guidance along with the 15% guideline and replacing it with new requirements for determining that an investment is illiquid, as well as new guidance in this Release regarding these requirements. We believe that the limit on illiquid investments that are assets that we are adopting, together with the new definition of "illiquid investments" that encompasses additional elements for determining that an investment is illiquid,⁷⁵⁸ provides a more comprehensive framework for funds to evaluate the liquidity of their investments.

We also agree, as discussed in more detail in section III.C.2.d above, that it is appropriate to harmonize the rule 22e-4 limit on illiquid investments with the rule's broader liquidity classification requirement by incorporating an illiquid investment category into the classification requirement. We believe that this harmonization will reduce confusion that could arise if we were to adopt requirements for identifying illiquid investments that differed from the requirements for classifying the liquidity of investments that are not illiquid.⁷⁵⁹ Additionally, we believe the harmonization responds to commenter concerns that, in practice, many funds believe very few of their portfolio investments are subject to the 15% limit on illiquid securities, since

⁷⁵⁸ See *supra* section III.C.2.d.

⁷⁵⁹ See *supra* footnotes 392-395 and accompanying text.

funds will be required to take into account “relevant market, trading, and investment-specific considerations” in identifying illiquid investments and incorporate market depth considerations as part of the rule’s liquidity classification requirement.⁷⁶⁰ A fund also will be required to consider a modified value impact standard in determining if an investment is illiquid, which as discussed above, we believe will help funds make more accurate liquidity assessments, particularly for asset classes or investments that are subject to intra-day price volatility.

One commenter suggested that, if the Commission adopts requirements that would expand the set of assets that is subject to the 15% limit on illiquid assets, it could consider extending the limit beyond 15%, or extending the time-to-sale period associated with the definition of “illiquid asset” beyond seven days, in order to limit market disruptions.⁷⁶¹ We have considered this suggestion and have decided that it is not necessary.⁷⁶² We continue to believe that 15% is an appropriate limit on illiquid investments that are assets. The compliance period we are adopting for rule 22e-4 will permit funds to come into compliance with the revised 15% illiquid investment limit while minimizing market disruptions.⁷⁶³

In the proposal, we requested comment as to whether we should require a fund to divest its assets in excess of the 15% limit or whether we should limit the time period in which a fund can exceed the 15% limit. As noted above, some commenters suggested that the 15% limit should be a maintenance test, rather than an acquisition test, requiring the fund to adjust its portfolio if it exceeds the 15% limit.⁷⁶⁴ Another commenter argued that imposing a fixed time

⁷⁶⁰ See *supra* footnotes 399-401 and accompanying text.

⁷⁶¹ See AFR Comment Letter.

⁷⁶² As noted above, no other commenters specifically addressed the amount of the limit.

⁷⁶³ See *infra* section III.M.1.

⁷⁶⁴ See *supra* footnote 756 and accompanying text.

period in which holdings above the 15% threshold must be divested would not be appropriate because it may force sales at depressed prices to the detriment of investors.⁷⁶⁵ In addition, one commenter noted the importance of ensuring oversight once a fund breaches the 15% limit and that efforts are made to reduce the fund's illiquid asset holdings (when possible).⁷⁶⁶

We believe that *requiring* a fund to divest illiquid investments if the fund's holdings of illiquid investments that are assets exceed 15% of net assets—which, as suggested by a commenter, could result in the fund needing to sell the illiquid investments at prices that incorporate a significant discount to the investments' stated value, or even at fire sale prices—could adversely affect shareholders and could potentially negate the liquidity risk management benefits of the illiquid investment limit. Therefore, under the final rule, a fund will be prohibited from *acquiring* any illiquid investment if, immediately after the acquisition, its illiquid investments that are assets would exceed 15% of its net assets.⁷⁶⁷

We further believe, however, that a fund should not be permitted to exceed the 15% limit on illiquid investments for an extended period of time without board oversight. Therefore, because we believe that if a fund's illiquid investments that are assets exceed the 15% limit it could indicate that the fund is encountering harmful liquidity pressures, the final rule requires, as suggested by commenters,⁷⁶⁸ that a fund promptly report such occurrence to its board and the

⁷⁶⁵ See HSBC Comment Letter.

⁷⁶⁶ See BlackRock Comment Letter; cf. PIMCO Comment Letter (suggesting that, with respect to the proposed three day liquid asset minimum, if a fund breaches the minimum, its manager should be afforded a reasonable period of time to reposition the portfolio).

⁷⁶⁷ We recognize that some index funds currently implement their strategies by using a full replication technique – i.e., by investing in all of the component securities of an index. To the extent an index tracked by an index fund would require a fund using a full replication technique to invest more than 15% of its net assets in illiquid investments that are assets, such fund could not make those investments and would need to consider whether it should continue to seek to track the performance of such index or whether it should use a different investment technique, such as sampling, to track the index.

⁷⁶⁸ See *supra* footnote 757.

Commission.⁷⁶⁹ Specifically, the final rule requires funds that hold more than 15% of their net assets in illiquid investments that are assets to report such an occurrence to their boards of directors within one business day, including an explanation of the extent and causes of the occurrence and how they plan to bring their illiquid investments that are assets to or below 15% of their net assets within a reasonable period of time.⁷⁷⁰ We also anticipate that if a fund exceeds the 15% limit on illiquid investments that are assets at any point during the year, the written report to the board of directors regarding the adequacy and effectiveness of the liquidity risk management program would discuss the breach of the limit and, if the fund is still breaching the 15% limit at the time of the report, the plan to bring the fund's illiquid investments that are assets to or below 15% of its net assets within a reasonable period of time.⁷⁷¹ In addition, if the amount of the fund's illiquid investments that are assets is still above 15% of its net assets 30 days from the occurrence (and at each consecutive 30 day period thereafter), the fund's board of directors, including a majority of directors who are not interested persons of the fund, must assess whether the plan presented to it, as described above, continues to be in the best interest of the fund or in kind ETF.⁷⁷² We believe these requirements appropriately balance our concerns regarding the overall liquidity of the fund's portfolio with the potential adverse effects that the forced sale of illiquid investments could have on a fund and its shareholders. These requirements should not result in funds selling their illiquid investments at fire sale prices or at inopportune times because such a sale would likely not be in the best interests of a fund and its shareholders. However, we

⁷⁶⁹ See *infra* section III.H.4 (discussing board oversight of the illiquid investment limit).

⁷⁷⁰ Rule 22e-4(b)(1)(iv)(A); see also *infra* section III.H.4.

⁷⁷¹ See *infra* section III.H.2 (discussing the written report to the board on the adequacy and effectiveness of the liquidity risk management program); see also rule 22e-4(b)(2)(iii).

⁷⁷² See rule 22e-4(b)(1)(iv)(A) and (B).

believe that board oversight is important when a fund's illiquid investments exceed 15% of its net assets for an extended period of time.

We acknowledge that requiring a board assessment of the appropriateness of the fund's plan to decrease its level of illiquid investments every 30 days a fund holds illiquid assets in excess of 15% of its net assets may impose burdens on boards and funds. Nonetheless, we believe that such a requirement is appropriate in light of the serious consequences that can result when a fund's liquidity becomes impaired or further deteriorates, particularly for extended periods of time.⁷⁷³ We expect that this requirement will appropriately focus boards and funds on resolving liquidity impairments in a reasonable period of time and in the best interests of the fund and its shareholders. In light of the risks attendant in holding larger proportions of illiquid investments, we believe it is important that the board is provided sufficient information and regular updates so that it can make an informed judgment. Accordingly, we believe this periodic reassessment requirement in the rule is appropriate.

Additionally, as discussed in section III.M.2 below, a fund will be required to confidentially notify the Commission when its illiquid investments that are assets exceed 15% of its net assets. As discussed below, reporting of this information will assist Commission staff in its monitoring efforts of liquidity, including monitoring not only the reporting fund but also funds that may have comparable characteristics to the reporting fund and may be similarly affected by market events. The percentage of the fund's holdings invested in illiquid investments that are assets also will be disclosed on Form N-PORT to the public on a quarterly basis, with a 60-day delay, as discussed in section III.C.6 above, which will lead to increased transparency of the fund's profile regarding holdings of illiquid investments at particular points

⁷⁷³ See, e.g., Discussion of liquidity issues associated with the Third Avenue Focused Credit fund at n. 81.

in time.

F. Policies and Procedures Regarding Redemptions in Kind

Many funds reserve the right to redeem their shares in-kind instead of with cash.⁷⁷⁴ Mutual funds that reserve the right to redeem in kind may use such redemptions to manage liquidity risk under exceptional circumstances.⁷⁷⁵ While many funds disclose that they have reserved the right to redeem in kind, most funds often consider redemptions in kind to be a last resort or emergency measure, and thus many do not have specific policies or procedures in place governing such in-kind redemptions.⁷⁷⁶ Like the proposal, the final rule requires a fund that engages in or reserves the right to engage in in-kind redemptions to adopt and implement written policies and procedures regarding in-kind redemptions as part of the management of its liquidity risk.⁷⁷⁷ These policies and procedures generally should address the process for redeeming in kind, as well as the circumstances under which the fund would consider redeeming in kind.

Multiple commenters welcomed efforts by the Commission to facilitate funds' ability to use redemptions in kind and stated that they considered redemptions in kind an important

⁷⁷⁴ See, e.g., Rule 18f-1 and Form N-18F-1 Adopting Release, *supra* footnote 24 (stating that the definition of “redeemable security” in section 2(a)(32) of the Investment Company Act “has traditionally been interpreted as giving the issuer the option of redeeming its securities in cash or in kind.”).

⁷⁷⁵ See Karen Damato, ‘Redemptions in Kind’ Become Effective for Tax Management, Wall Street Journal (Mar. 10, 1999), available at <http://www.wsj.com/articles/SB921028092685519084> (“‘Redemptions in kind’ are typically viewed by fund managers as an emergency measure, a step they could take to meet massive redemptions in the midst of a market meltdown.”). Besides using in-kind redemptions as an emergency measure to manage liquidity risk, funds may also use in-kind redemptions for other reasons. For example, funds may wish to redeem certain investors (particularly, large, institutional investors) in kind, because in-kind redemptions could have a lower tax impact on the fund than selling portfolio securities in order to pay redemptions in cash. This, in turn, could benefit the remaining shareholders in the fund. See, e.g., *id.* (“If a fund has to sell appreciated stocks to pay a redeeming shareholder, it realizes capital gains. Unless the fund has offsetting capital losses, those gains are distributed as taxable income to all remaining fund holders. By contrast, when funds distribute stocks from their portfolios, there is no tax event for the continuing holders.”).

⁷⁷⁶ See Proposing Release, *supra* footnote 9, at section III.C.5

⁷⁷⁷ Rule 22e-4(b)(v). This requirement also applies to In-Kind ETFs that are subject to the tailored regime discussed below. *Id.*

liquidity risk management tool for allocating the cost of selling securities to meet redemptions to redeeming investors.⁷⁷⁸ These commenters also generally agreed that as part of a fund's management of its liquidity risk, a fund should adopt and implement written policies and procedures regarding in-kind redemptions.⁷⁷⁹ Commenters noted that there are often logistical issues associated with paying in-kind redemptions, and that this limits the availability of in-kind redemptions under many circumstances.⁷⁸⁰ Commenters also noted that some shareholders are generally unable or unwilling to receive in-kind redemptions, which may limit its utility.⁷⁸¹ These commenters agreed that requiring funds to implement policies and procedures on in-kind redemptions in advance would promote a focus on addressing any legal or operations issues before the fund's use of redemptions in kind, thus making such redemptions a more practical and effective liquidity management tool.⁷⁸²

Commenters also suggested that the Commission provide guidance on the appropriate use of in-kind redemptions for funds.⁷⁸³ We expect that effective fund policies and procedures on in-kind redemptions would contemplate a variety of issues and circumstances. Well-designed policies and procedures would likely address the particular circumstances in which a fund might employ in-kind redemptions, for example, detailing whether a fund would use in-kind

⁷⁷⁸ BlackRock Comment Letter (noting that redemptions in kind allow costs to be externalized from the fund without the use of mechanisms such as swing pricing).

⁷⁷⁹ See, e.g., BlackRock Comment Letter; Invesco Comment Letter.

⁷⁸⁰ See, e.g., Invesco FSOC Notice Comment Letter, *supra* footnote 248 (noting that while "Invesco has on occasion exercised rights to redeem in kind, in practice such rights are exercised infrequently").

⁷⁸¹ See Peter Fortune, *Mutual Funds, Part I: Reshaping the American Financial System*, NEW ENGLAND ECON. REV. (July/Aug. 1997) ("Fortune") at 47 ("A fund redeeming in kind does so at the risk of its reputation and future business . . ."), available at <http://www.bostonfed.org/economic/neer/neer1997/neer497d.htm>; Invesco Comment Letter.

⁷⁸² ICI Comment Letter I; BlackRock Comment Letter.

⁷⁸³ See, e.g., BlackRock Comment Letter.

redemptions at all times, or only under stress, and what types of events may lead the fund to use them. Such policies and procedures would also likely address whether a fund would use in-kind redemptions for all redemption requests or only for requests over a certain size.⁷⁸⁴

Funds may also wish to consider having policies and procedures that address the ability of investors to receive in-kind redemptions, potentially including different procedures for different shareholder types. For example, the policies and procedures might provide that retail shareholders (who may not be operationally equipped to receive in-kind redemptions) may be provided cash redemptions, but that institutional investors who may be able to receive such securities, would be paid out in-kind under certain circumstances. These procedures may also consider whether holdings through omnibus accounts pose any unique issues that should be addressed. Well-designed policies and procedures would likely also address potential operational issues with providing in-kind redemptions to various kinds of investors, and plan out methods for addressing such operational issues. These might include notifying large shareholders that may be subject to redemptions in kind and setting up securities transfer processes for those shareholders in advance.

Effective policies and procedures would also likely address how the fund would determine which securities it would use in an in-kind redemption (for example would it use illiquid or restricted securities), or whether it plans to redeem securities in kind as a *pro rata* ratio of the fund's securities holdings, or whether it would redeem in a non-*pro rata* manner. For a fund that redeems *pro rata*, policies and procedures might address how the fund plans in-kind redemptions of odd lots or small lots of securities, and if a fund were to do such odd lot

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One commenter suggested that fund sponsors should consider redemptions in kind if withdrawal requests exceed a certain percentage of a fund's total assets. See BlackRock Comment Letter.

transactions, how to process such transactions. They may also consider how they would accomplish in-kind redemptions of illiquid securities or securities that have restrictions on their transferability, and the extent to which these securities would not be redeemed in kind.

If a fund chooses not to redeem in a *pro rata* manner, effective policies and procedures would likely address that securities redeemed are selected and distributed in a manner that is fair and does not disadvantage either the redeeming shareholder or the remaining investors in the fund. We caution that if a fund redeems an investor's interests in a fund by transferring an unrepresentative set of securities to the investor, this may raise questions of shareholder discrimination and unfairness (as well as potentially cherry picking and favoritism), which should be addressed in the fund's policies and procedures. For example, policies and procedures could address how to ensure that any securities that are redeemed in kind in a non-*pro rata* manner are valued properly, to ensure that the securities transferred represent the proportionate share of the fund NAV.⁷⁸⁵ They might also address how the fund would determine that shareholders are treated fairly, and are not redeemed with securities the fund deems undesirable or securities that have significant tax consequences. Relatedly, the policies and procedures may also address how the fund evaluates the tax consequences to the fund and the redeeming shareholder of distributing certain securities, for example, whether distributing certain securities that have significant capital gains or losses built in would have inequitable results.

Because the management and personnel capacity of funds facing heavy redemptions and other liquidity stresses will likely be strained as funds attempt to manage these pressures, the Commission believes that requiring funds to have policies and procedures dictating how fund's

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See section 2(a)(32) (definition of redeemable security). Such a transaction may have significant negative consequences to the redeeming recipient, particularly if the security provided was fair valued improperly, was restricted, or was in other ways impaired.

will implement in-kind redemptions will increase the likelihood that in-kind redemptions will be a feasible risk management tool, and may address any potential fund or shareholder inequities.

Accordingly, we are adopting this requirement largely as proposed.⁷⁸⁶

G. Cross-Trades

Today, under rule 17a-7, funds may make certain affiliated securities transactions between funds and certain affiliates (“cross trades”), provided they meet certain protective conditions.⁷⁸⁷ [bookmark41](#) Rule 17a-7 includes conditions that limit the portfolio assets that may be cross-traded, and, as discussed below, cross-trades involving certain less liquid assets may not be eligible to rely on the rule. As discussed in the Proposing Release, some funds may consider engaging in cross-trades to be a useful liquidity risk management tool. Cross-trading can benefit funds and their shareholders by allowing funds that are mutually interested in a securities transaction that is consistent with the investment strategies of each fund to conduct the transaction without incurring transaction costs and without generating a market impact.⁷⁸⁸ However, cross-trades also have significant potential for abuse. For example, as the Commission has previously stated, “an unscrupulous investment adviser might ‘dump’ undesirable securities on a registered investment company or transfer desirable

⁷⁸⁶ The rule text has been slightly modified to make clear that redemption in kind policies and procedures must address not just how the fund will engage in redemptions in kind, but also when it will do so. Rule 22e-4(b)(1)(v).

⁷⁸⁷ Section 17 of the Act restricts transactions between an “affiliated person of a registered investment company or an affiliated person of such affiliated person” and that investment company—for example, transactions between a fund and another fund managed by the same adviser. A fund must therefore obtain exemptive relief from the Commission before entering into purchase or sale transactions with an affiliated fund, or execute such transactions subject to the provisions of rule 17a-7 under the Investment Company Act (permitting purchase and sale transactions among affiliated funds and other accounts, under certain circumstances).

⁷⁸⁸ As noted above, rule 17a-7 requires that each cross-trade be consistent with the policy of each fund participating in the transaction and that no brokerage commissions, fees or other remuneration be paid in connection with the transaction. Because cross-trades are conducted privately between funds, they are not transparent to market trading reporting systems and thus are unlikely to generate a market impact.

securities from a registered investment company to another more favored advisory client in the complex. Moreover the transaction could be effected at a price which is disadvantageous to the registered investment company.”⁷⁸⁹ Cross-trade transactions also may be inconsistent with the investment objectives, investment strategies, or risk profiles of participating investment companies and other advisory clients.⁷⁹⁰

Accordingly, rule 17a-7 requires that any cross-trades satisfy certain conditions designed to prevent such abuses, including the requirement that market quotations be readily available for each traded security and that if the security is only traded over the counter, the cross-trade be conducted at the average of the highest current independent bid and lowest current independent offer determined on the basis of reasonable inquiry.⁷⁹¹ [bookmark44](#) In requiring market quotations for cross-traded securities, the Commission has stated that “[r]eliance upon such market quotations provides an independent basis for determining that the terms of the transaction are fair and reasonable to each participating investment company or other advisory client and do not involve overreaching.”⁷⁹² Rule 17a-7 also requires that a cross-trade transaction be “consistent with the policy of each registered investment company

⁷⁸⁹ Exemption of Certain Purchase or Sale Transactions Between a Registered Investment Company and Certain Affiliated Persons Thereof, Investment Company Act Release No. 11136 (Apr. 21, 1980) [45 FR 29067 (May 1, 1980)]. *See also* Evergreen Order, *supra* footnote 46 (fund’s adviser failed to seek best execution in trading fund securities and favored one client over another, thereby engaging in transactions that operated as a fraud or deceit upon its client in violation of section 206(2) of the Advisers Act).

⁷⁹⁰ A fund that provided a non-*pro rata* distribution of cash, securities or other property to a shareholder that owns 5% or more of the fund and/or gives any election to the shareholder about which assets to receive may also raise affiliated transaction concerns under section 17(a) and rule 17a-5, as such a transaction would fall outside the exemption provided by rule 17a-5 and thus might be viewed as a sale to or purchase from the fund by an affiliated person.

⁷⁹¹ *See* rule 17a-7(b).

⁷⁹² Exemption of Certain Purchase or Sale Transactions Between a Registered Investment Company and Certain Affiliated Persons Thereof, Investment Company Act Release No. 11676 (Mar. 10, 1981) [45 FR 17011 (Mar. 17, 1981)]. The Commission has historically declined to expand rule 17a-7 to cross-trades for which market quotations were not readily available and where independent current market prices were not available because these conditions increase the potential for abuse through cross-trades. *See id.*

and separate series of a registered investment company participating in the transaction, as recited in its registration statement and reports filed under the Act.”⁷⁹³ [bookmark45](#)

We noted in the Proposing Release that less liquid assets are less likely to satisfy rule 17a-7 than highly liquid investments.⁷⁹⁴ Some commenters expressed concern that this assertion would prohibit funds from, or create a presumption against, cross-trading any assets deemed less liquid,⁷⁹⁵ or directly incorporate liquidity classification decisions into rule 17a-7 eligibility determinations.⁷⁹⁶ One commenter, disagreeing with the assertion that less liquid assets are less likely to satisfy rule 17a-7 than highly liquid assets, stated “a less actively traded security may be less liquid, but nonetheless have readily available market quotations, and a fund may determine that independent bid and offer prices are available in the market. The relative illiquidity of the security itself will not alone be determinative of whether prices are available for Rule 17a-7 purposes.”⁷⁹⁷

We note that less liquid assets, by definition, are less likely to trade in highly active markets that produce readily available market quotations, which may make it more difficult to ensure that the terms of a cross-trade transaction are fair and reasonable to each participating investment company or other advisory client and do not involve overreaching. As one commenter noted, “rule 17a-7 broadly requires the availability of accurate valuation information with respect to any security proposed to be traded from one adviser-directed

⁷⁹³ See rule 17a-7(c).

⁷⁹⁴ See Proposing Release, *supra* footnote 9, at n.396 and accompanying text.

⁷⁹⁵ See ICI Comment Letter I.

⁷⁹⁶ See Comment Letter of Simpson Thacher & Bartlett LLP (Jan. 14, 2016) (“Simpson Thacher Comment Letter”).

⁷⁹⁷ See Fidelity Comment Letter.

account to another. This effectively requires such securities to be relatively liquid.”⁷⁹⁸

Moreover, the absence of highly active markets for less liquid assets may exacerbate the concern discussed above relating to “dumping” undesirable securities, because limited markets for such assets indicates that there are fewer alternate options for disposing of the assets. Similarly, the absence of highly active markets for less liquid assets may exacerbate the concern relating to a transfer of assets that is inconsistent with the investment objective, investment strategies, or risk profile of each participating investment company or other advisory client.

We agree that an assessment of an asset’s liquidity, without more, would not determine whether the asset is eligible for a cross-trade transaction under rule 17a-7. However, as noted above, we believe that any assets used in a cross-trade transaction should be scrutinized to ensure that they satisfy all of rule 17a-7’s requirements. Due to the particular risks associated with cross-trading less liquid assets, it may be prudent for advisers to subject less liquid assets to careful review (and potentially even a heightened review compared to other more liquid assets) before engaging in such transactions.

We note that cross trading also implicates a fund’s adviser’s duty to seek best execution for each fund or other advisory client, as well as its duty of loyalty to each fund or other advisory client.⁷⁹⁹ [bookmark47](#) An adviser should not cause funds or other clients to enter into a cross-trade unless doing so would be in the best interests of each fund or other client

⁷⁹⁸ See id.

⁷⁹⁹ See, e.g., In re Western Asset Management Co., Investment Company Act Release No. 30893 (Jan. 27, 2014) (settled action) (stating that the adviser to funds and other advisory clients engaging in cross-trading “has a fiduciary duty of loyalty to its clients and also must seek to obtain best execution for both its buying and selling clients” and finding that the adviser aided and abetted and caused violations of section 17(a) and violated Advisers Act section 206).

participating in the transaction. Advisers should be particularly sensitive to the possibility of heightened conflicts when one or both of the clients is experiencing stress at the time of consideration of a cross trade.

Under rule 38a-1, a fund's compliance policies and procedures related to rule 17a-7 generally should contemplate how the fund meets the rule's requirements with regard to less liquid assets. For example, as part of these policies and procedures, a fund might consider conducting a review of less liquid assets before cross-trading them to ensure that "market quotations are readily available," that a "current market price" is available, that the transaction is in line with each participating investment company's or other advisory client's investment objective, investment strategies and risk profile, and that the cross-trade satisfies all other requirements set forth in rule 17a-7. Reasonably designed policies and procedures thus would likely specifically address how a fund would determine that such less liquid securities are appropriately used when meeting the requirements of rule 17a-7. The specific review of a less liquid asset would likely vary depending on the characteristics of the market or markets in which the asset transacts, the characteristics of the asset itself, and the nature of the funds potentially involved in the cross trade.

In crafting policies and procedures reasonably designed to address the particular risks of cross-trading less liquid assets, a fund could consider specifying the sources of the readily available market quotations to be used to value the assets and establish specific criteria for determining whether market quotations are current and readily available, and include potential back-up sources if the primary sources are not available. Funds should consider including in their policies and procedures periodic reviews of the continuing appropriateness of those sources of readily available market quotations.

In addition, a fund's policies and procedures might also provide for assessing the quality of quotations provided by dealers. The quality of dealer quotations may vary depending upon, among other things, the extent to which a dealer makes a market in or retains an inventory in the particular security, or in similar securities, such that the dealer maintains an awareness of changes in market factors affecting the value of the security.⁸⁰⁰ "Indications of interest" and "accommodation quotes," may not necessarily reflect the current market values of the securities and thus are not "market quotations" or "market values" for the purposes of rule 17a-7.⁸⁰¹

In addition, reasonably designed policies and procedures likely would also include compliance monitoring to help ensure that the investment objective, investment strategies and risk profile of each participating investment company or other advisory client are scrutinized in conjunction with the characteristics of any cross-traded asset to evaluate whether the asset transfer is not in line with any objective or strategy or inappropriately shifts risk from one investment company or other advisory client to another. Whether a cross-trade is in the best interest of an investment company or other client purchasing an asset may depend, in part, on the relative liquidity of the purchaser's existing portfolio assets and the level of redemptions that may be reasonably anticipated by the purchaser.

⁸⁰⁰ Dealers do not necessarily purport to provide quotations for securities that reflect their current market values. Some dealers may provide only "indications of interest," *i.e.*, non-firm expressions of interest to trade that do not constitute quotations or "accommodation quotes". See, *e.g.*, Regulation NMS, Securities Exchange Act Release No. 49325 (Feb. 26, 2004) [69 FR 11126 (Mar. 9, 2004)], at n.257. Cf. Rules 600(b)(8) and (62) under Regulation NMS [17 CFR 242.600(b)(8) and 242.600(b)(62)] (defining "bid or offer" as "the bid price or the offer price communicated by a member of a national securities exchange or member of a national securities association to any broker or dealer, or to any customer, at which it is willing to buy or sell one or more round lots of an NMS security, as either principal or agent, but shall not include indications of interest," and defining "quotation" as "a bid or an offer").

⁸⁰¹ *Id.* We also note that evaluated prices provided by pricing services are not, by themselves, readily available market quotations. See 2014 Money Market Fund Reform Adopting Release, *supra* footnote 43, at n.895 and accompanying text.

H. Board Approval and Designation of Program Administrative Responsibilities

Directors, and particularly independent directors, play a critical role in overseeing fund operations, although they generally may delegate day-to-day management to a fund's adviser.⁸⁰² As discussed below, we are adopting as proposed the requirement for a fund's board of directors to approve the investment adviser, officer, or officers who are responsible for administering the program and to approve the fund's written liquidity risk management program. However, in a change from the proposal, the board will not be required to specifically approve the fund's highly liquid investment minimum (except in the limited circumstances that a fund below its minimum seeks to change it) or to approve material changes to the program. Instead, similar to rule 38a-1, the board will be required to review, no less than annually, a written report prepared by the investment adviser, officer, or officers designated to administer the liquidity risk management program that describes a review of the program's adequacy and effectiveness, including, if applicable, the operation of the highly liquid investment minimum, and any material changes to the program.⁸⁰³ As discussed in detail below, the final rule retains a role for the board in overseeing the fund's liquidity risk management program, but in response to commenters, eliminates certain of the more specific and detailed approval requirements.

We believe the role of the board under the rule is one of general oversight, and consistent with that obligation we expect that directors will exercise their reasonable business judgment in overseeing the program on behalf of the fund's investors. As discussed in the Proposing

⁸⁰² See Investment Trusts and Investment Companies: Hearings on H.R. 10065 Before a Subcomm. of the House Comm. on Interstate and Foreign Commerce, 76th Cong., 3d Sess. 112 (1940) at 109 (describing the board as an "independent check" on management); *Burks v. Lasker*, 441 U.S. 471, 484 (1979) (citing *Tannenbaum v. Zeller*, 552 F.2d 402, 406 (2d. Cir. 1979)) (describing independent directors as "independent watchdogs").

⁸⁰³ See rule 22e-4(b)(2).

Release, directors may satisfy their obligations with respect to this initial approval by reviewing summaries of the liquidity risk management program prepared by the fund's investment adviser, officer, or officers administering the program, legal counsel, or other persons familiar with the liquidity risk management program.⁸⁰⁴ The summaries should familiarize directors with the salient features of the program and provide them with an understanding of how the liquidity risk management program addresses the required assessment of the fund's liquidity risk.

Many commenters expressed general support for board oversight of the liquidity risk management program, although several objected to certain of the board's specific responsibilities required under the rule, in particular their approval of the three-day highly liquid asset minimum and of material changes to the program.⁸⁰⁵ Given the board of directors' historical oversight role, the Commission continues to believe it is appropriate to require a fund's board to oversee the fund's liquidity risk management program. The rule's requirements are designed to facilitate the board's oversight of the adequacy and effectiveness of the fund's liquidity risk management program.

Several commenters asked that the final rule include an express standard of care (*i.e.*, the business judgment rule) to which the Commission would hold a fund's board accountable in this area.⁸⁰⁶ One commenter requested that the final rule provide fund boards with a safe harbor in approving specific elements of the program and clarification that a board is not required to

⁸⁰⁴ See Proposing Release, *supra* footnote 9, at section III.D.

⁸⁰⁵ See, *e.g.*, ICI Comment Letter I; IDC Comment Letter; SIFMA Comment Letter I.

⁸⁰⁶ Fidelity Comment Letter; FSR Comment Letter; MFDF Comment Letter; T. Rowe Comment Letter. See also NYC Bar Comment Letter (suggesting codifying a good-faith, reasonable, business judgment standard). One commenter also suggested that the proposed requirement of keeping records of the board's determination related to the factors considered when approving the three-day liquid asset minimum is not appropriate in light of the board's historical role. T. Rowe Comment Letter. We note that as discussed below, the board will not specifically approve the highly liquid investment minimum, thereby addressing the commenters' concerns about keeping records of the factors used in the board's determination.

consider all of the enumerated factors (specifically, any non-applicable factors) when setting and adjusting the three-day liquid asset minimum.⁸⁰⁷ We believe that the changes made to the board oversight role from the proposal should largely address the commenters' concerns. In addition, we believe that the board oversight role here is substantially similar to its role and responsibilities in other contexts under the Investment Company Act, and that providing a different standard of care for board action here would not be appropriate.⁸⁰⁸

1. *Designation of Administrative Responsibilities to Fund Investment Adviser, Officer, or Officers*

We are adopting substantially as proposed the requirements that the fund's board of directors approve the designation of the fund's investment adviser, officer, or officers (which could not be solely portfolio managers of the fund) responsible for administering the fund's liquidity risk management program.⁸⁰⁹ We are also adopting, substantially as proposed, the requirement that the administrator of the program provide the board with a written report on the adequacy of the fund's liquidity risk management program, including the highly liquid investment minimum, and the effectiveness of its implementation, at least annually.⁸¹⁰ The Commission continues to believe this approach properly tasks the person(s) who are in a position to manage the fund's liquidity risks on a real-time basis with responsibility for administration of the liquidity risk management program. Designating the fund's investment adviser, officer, or officers responsible for the administration of the fund's liquidity risk management program,

⁸⁰⁷ T. Rowe Comment Letter.

⁸⁰⁸ See, e.g., 2014 Money Market Fund Reform Adopting Release, at text accompanying nn.266-267 (discussing the board's role under the Investment Company Act).

⁸⁰⁹ See rule 22e-4(b)(2)(ii).

⁸¹⁰ See rule 22e-4(b)(2)(iii). We note that a fund's sub-adviser could be designated as the administrator of the program if appropriate.

subject to board approval, is consistent with the way the Commission understands most funds manage liquidity.⁸¹¹

We received little comment on this aspect of the proposal. A few commenters agreed with the proposal that the board's responsibilities should include approval of the program's administrator.⁸¹² We continue to believe that requiring that the board approve the designation of the administrator of the liquidity risk program is an important step in board oversight of the program. We believe that having the board approve the administrator should help enhance board oversight of the program and allow for boards to better understand who is responsible for administering it.

One commenter argued that portfolio managers should administer the program, contending that liquidity risk management requires investment skills and swiftness during stress to manage redemptions.⁸¹³ This commenter believed that if a program administrator were independent from portfolio management, then liquidity assessment might become divorced from the investment process, which the commenter argued would be disadvantageous to the fund and investors. We agree that portfolio management provides valuable input into the liquidity risk management process. However, we are concerned that if only portfolio managers run the program, the program might not be administered with sufficient independence to accomplish the goal of managing the risk of the fund's liquidity. We believe that a fund generally should consider the extent of influence portfolio managers may have on administration of the program,

⁸¹¹ See American Bar Association, Fund Director's Guidebook, Federal Regulation Of Securities Committee, (4th ed. 2015), at 82 ("Determining the liquidity of a security is primarily an investment decision that is delegated to the investment adviser, but directors may establish guidelines and standards for determining liquidity.").

⁸¹² IDC Comment Letter; Voya Comment Letter.

⁸¹³ Invesco Comment Letter.

and seek to provide independent voices and administration of the program as a check on any potential conflicts of interest to the extent appropriate. However, as the proposal noted, although the fund's portfolio managers cannot be solely responsible for administering the program, the administrator of the program might wish to consult with the fund's portfolio manager, traders, risk managers, and others as necessary or appropriate in administering a fund's liquidity risk management program.⁸¹⁴ Portfolio managers may also be a part of any committee or group designated to administer the program, if more than one person is so designated. The Commission understands that some funds currently employ a dedicated risk management officer who consults with the fund's portfolio management team. One commenter noted, and we agree, that portfolio managers should provide day-to-day management of funds, with an additional layer of oversight provided by the risk and compliance framework.⁸¹⁵ After review of the comments received, we continue to believe that requiring the officer or officers responsible for administering the fund's liquidity risk management program not to be solely portfolio managers strikes the appropriate balance between independence and expertise.

The Commission recognizes that, in certain circumstances, a fund's service providers might assist a fund and its investment adviser by providing information relevant to a fund's assessing and managing liquidity risk.⁸¹⁶ We note, however, that the primary parties responsible for a fund's liquidity risk management are the fund itself and any parties to whom the fund has delegated responsibility for administering the fund's liquidity risk management program.

One commenter requested further guidance on what responsibilities the administrator

⁸¹⁴ See Proposing Release, *supra* footnote 9, at section III.D.3.

⁸¹⁵ BlackRock Comment Letter.

⁸¹⁶ See Proposing Release, *supra* footnote 9, at section III.D.3.

could delegate and to what extent the administrator could rely upon third parties.⁸¹⁷ The Proposing Release provided two examples of when a fund's service providers could assist a fund and its investment adviser in monitoring factors relevant to a fund's liquidity risk and managing the fund's liquidity risk: third parties could provide data relevant to assessing fund flows, and a sub-adviser necessarily would be responsible for investing a fund's assets in accordance with the fund's three-day liquid asset minimum and any other liquidity-related portfolio requirements adopted by the fund.⁸¹⁸ As proposed, the final rules require a fund to oversee any liquidity risk monitoring or risk management activities undertaken by the fund's service providers. We encourage the fund to communicate regularly with its service providers as a part of its oversight and to coordinate the liquidity risk management efforts undertaken by various parties.

2. *Oversight of the Liquidity Risk Management Program*

Under the final rule, a fund will be required to obtain initial approval of its written liquidity risk management program from the fund's board of directors, including a majority of its independent directors.⁸¹⁹ Additionally, the fund's board will be required to review a written report from the administrator of the fund's liquidity risk management program, provided no less frequently than annually, that addresses the operation of the program and assesses its adequacy and effectiveness of implementation.⁸²⁰ In a change from the proposal, a fund will not be required to obtain approval of any material changes to the fund's liquidity risk management program from the fund's board of directors, but instead such material changes will be described

⁸¹⁷ Voya Comment Letter.

⁸¹⁸ See Proposing Release, *supra* footnote 9, at section III.D.3.

⁸¹⁹ See rule 22e-4(b)(2)(i).

⁸²⁰ As noted above, more frequent reports to the board may be appropriate in certain circumstances. See *supra* footnote 771.

in the report.⁸²¹

Commenters raised concerns that the proposed rule imposed management responsibilities on the fund's board of directors and suggested that the Commission clarify that the board's role is to provide oversight through approval of policies and procedures, whereas management's role is to devise the specific details of the program.⁸²² Commenters contended that the final rule should mirror rule 38a-1, requiring fund managers to explain material changes to the program (including changes to the three-day liquid asset minimum) in an annual report to the board, not to submit those changes for prior board approval.⁸²³ These commenters felt that a requirement to discuss material changes to the liquidity risk management program in an annual update to the fund's board would strike an appropriate balance between allowing the fund manager the flexibility to make changes to liquidity risk management as market conditions might require, while also keeping the fund's board informed.⁸²⁴

We agree with commenters that requiring funds to obtain approval from fund boards before making material changes to a liquidity risk management program risks the program becoming stale and outdated as market changes occur, and is not consistent with the approach taken under rule 38a-1. Accordingly, the final rule does not require prior approval of material changes to the fund's liquidity risk management program from the fund's board of directors. However, under the final rule, the board is still required to approve the program initially and to provide oversight of it, as well as review a report on the adequacy and effectiveness of the

⁸²¹ See rule 22e-4(b)(2).

⁸²² See, e.g., Cohen & Steers Comment Letter; FSR Comment Letter; HSBC Comment Letter; NYC Bar Comment Letter.

⁸²³ See, e.g., BlackRock Comment Letter; FSR Comment Letter; ICI Comment Letter I; Invesco Comment Letter.

⁸²⁴ See, e.g., BlackRock Comment Letter; Dechert Comment Letter; Voya Comment Letter.

program's implementation, which must include a description of any material changes made to the program during the period. We believe that this oversight role is consistent with the board's historical responsibilities with respect to overseeing fund operations.

3. *Oversight of the Highly Liquid Investment Minimum*

In a change from the proposal, under the final rule, boards will not be required to approve the highly liquid investment minimum, nor approve changes to it, except in the limited circumstances where a fund seeks to change the minimum while the fund is below the pre-established minimum. Commenters argued that because liquidity risk management, including management of three day-liquid assets, is both technical and fact-intensive and often requires day-to-day judgments, fund managers should develop and administer the program, subject to board review.⁸²⁵ Commenters were concerned that the requirement for a fund to obtain board approval for setting and changing the three-day minimum may cause delay that might harm fund shareholders.⁸²⁶ For example, one commenter argued that requiring board approval, which might be difficult to obtain on a timely basis, could cause a fund to stand idle as market conditions changed, missing opportunities as board approval was sought.⁸²⁷

We agree with commenters that requiring boards to approve the highly liquid investment minimum may reduce its utility, as the minimum may need to be revised on a more timely basis so that it can best reflect the liquidity management needs of the fund under current market conditions. In addition, we understand commenters' concerns that requiring mutual fund boards to make day-to-day determinations regarding the minimum amount of cash or liquid assets the

⁸²⁵ See, e.g., CRMC Comment Letter; FSR Comment Letter; State Street Comment Letter; Dodge & Cox Comment Letter.

⁸²⁶ *Id.*

⁸²⁷ Dechert Comment Letter.

fund should hold may lead to a more detailed managerial role for the board.

However, in the limited circumstances where the program administrator seeks to change the fund's highly liquid investment minimum while the fund is below the pre-established minimum, the final rules require the board to approve such a change. In the absence of such a requirement, the administrator could simply change the minimum if the fund dropped below it, avoiding the accountability of the board approval requirements as well as reducing the minimum's utility as a liquidity risk management tool. The final rule also requires the board to receive a report whenever the fund falls below its highly liquid investment minimum at its next regularly scheduled meeting and a report of such a shortfall if the fund is below its highly liquid investment minimum for more than 7 consecutive calendar days, within one business day thereafter. The Commission believes these requirements properly balance the ability of funds to move quickly in response to shifting environments with the boards' oversight of the liquidity risk management program.

4. Oversight of Illiquid Investment Limit

In a change from the proposal, the final rule will also require that a fund board be informed within one business day if the fund's holdings of illiquid investments exceed 15% of its net assets. In the proposal, we requested comment as to whether additional aspects of a fund's liquidity management program should be reported to a fund's board. For the reasons discussed in the section on Form N-LIQUID, if a fund's holdings of illiquid investments exceed 15% for any reason (for example, if a fund experiences net redemptions leading to increased holdings of illiquid investments) it may raise significant concerns regarding the fund's management of its liquidity and ability to continue to meet its redemption obligations. Accordingly, we believe that such an event should be reported to the board immediately, as it may have significant impacts on

the ability of the fund to meet its redemption obligations, and may compromise its liquidity risk management.

As discussed in the section on Form N-LIQUID below, a number of commenters also expressed support for the addition of an early warning notification provision, under which funds would be required to notify the Commission (or take other action) when illiquid investments held at the end of a business day exceed 15% of net assets and continue to exceed 15% of net assets three business days after the threshold was first exceeded.⁸²⁸ As discussed in the section on Form N-LIQUID, we are adopting a requirement that a fund report to the Commission within one business day if the fund's holdings of illiquid investments exceed 15% percent of its net assets. One commenter suggested that such a requirement would impose greater discipline on the oversight of fund holdings of illiquid assets, and that a fund would likely consult with the fund board in developing how to proceed in response.⁸²⁹ We agree, and believe that if a fund were to file Form N-LIQUID because the fund's holdings of illiquid investments exceeded 15% of its net assets, a fund board should be informed, and should be informed quickly, so that the board can provide oversight as the fund determines how to address the level of illiquidity in the fund's portfolio. Accordingly, as a complement to this new N-LIQUID requirement, the final rules require that if a fund's holdings of illiquid investments exceed 15% of its net assets, the fund board be informed of that fact within one business day after the occurrence, with an explanation of the extent and causes of the occurrence and how the fund plans to bring its illiquid investments that are assets to or below 15% of its net assets within a reasonable period of time.

⁸²⁸ See, e.g., ICI Comment Letter III; SIFMA Comment Letter III (noting that this early warning notification could respond to concerns raised by the Third Avenue Fund liquidation); see also Third Avenue Temporary Order, *supra* footnote 12.

⁸²⁹ See ICI Comment Letter III.

I. Recordkeeping Requirements

Under the final rules, and as we proposed, each fund will be required to maintain a written copy of the policies and procedures adopted as part of its liquidity risk management program for five years, in an easily accessible place.⁸³⁰ Additionally, each fund will be required to maintain copies of any materials provided to its board in connection with the board's initial approval of the fund's liquidity risk management program, and copies of written reports provided to the board on the adequacy of the fund's liquidity risk management program, including the fund's highly liquid investment minimum, and the effectiveness of its implementation for at least five years after the end of the fiscal year in which the documents were provided to the board, the first two years in an easily accessible place.⁸³¹ In a change from the proposal, funds would also need to keep records of any materials provided to the board related to the fund dropping below its highly liquid investment minimum. As with the proposal, the final rules also require each fund to keep a written record of how its highly liquid investment minimum, and any adjustments thereto, were determined, including the fund's assessment and periodic review of its liquidity risk for a period of not less than five years, the first two years in an easily accessible place, following the determination of, and each change to, the fund's highly liquid investment minimum.⁸³²

One commenter found the recordkeeping requirements consistent with similar recordkeeping requirements that funds are currently required to maintain.⁸³³ The recordkeeping

⁸³⁰ See rule 22e-4(b)(3)(i). These policies and procedures would include any shortfall policies and procedures adopted by a fund. See *id.*

⁸³¹ See rule 22e-4(b)(3)(ii).

⁸³² See rule 22e-4(b)(3)(iii).

⁸³³ CFA Comment Letter.

requirement is designed to provide our examination staff with a basis to evaluate a fund's compliance with the requirements of rule 22e-4. We also anticipate that these records would assist our staff in identifying weaknesses in a fund's liquidity risk management. The five-year retention period is also consistent with the period provided in rule 38a-1(d) under the Act. We believe consistency in these retention periods is appropriate because funds currently have compliance program-related recordkeeping procedures in place incorporating a five-year retention period, which we believe lessen the compliance burden to funds, compared to choosing a different retention period, such as the six-year recordkeeping retention period under rule 31a-2 of the Act.

The Commission continues to believe that the rule appropriately balances recordkeeping-related burdens on funds and our examination staff's ability to evaluate a fund's liquidity risk management program in light of the requirements of rule 22e-4. We are therefore adopting this aspect of the rule substantially as proposed.

J. ETFs

We are adopting certain tailored liquidity risk management program requirements for ETFs.⁸³⁴ In assessing, managing, and periodically reviewing its liquidity risk, an ETF will be required to consider certain additional factors, as applicable, that take into account its unique operation, as discussed further below.⁸³⁵ Like all funds, each ETF also will be required to limit its investments in illiquid investments to no more than 15% of its net assets and obtain certain

⁸³⁴ References to ETFs in this section are to both in-kind and other open-end ETFs, but not UIT ETFs (which are not subject to the liquidity risk management program requirements), except where specifically indicated otherwise. *See infra* section III.K for a discussion of limited liquidity review requirements for principal underwriters and depositors of UITs.

⁸³⁵ *See* rule 22e-4(b)(1)(i).

board approvals regarding the program. Certain ETFs that qualify as “In-Kind ETFs,”⁸³⁶ (generally ETFs that redeem shares in kind except to a *de minimis* extent and that publish their holdings daily) however, will not be required to classify their portfolio investments or comply with the highly liquid investment minimum requirement.⁸³⁷ We believe these adjusted program requirements recognize and appropriately require management of the unique liquidity risks found in ETFs, and in particular In-Kind ETFs.

A number of commenters on the proposal highlighted how ETFs differ from mutual funds, and stated in particular that In-Kind ETFs do not present the same type of liquidity risks as other funds.⁸³⁸ These commenters suggested that the Commission: (i) exempt either ETFs or In-Kind ETFs entirely from proposed rule 22e-4;⁸³⁹ (ii) exempt either ETFs or In-Kind ETFs from certain requirements of proposed rule 22e-4 (notably the portfolio liquidity classification and three-day liquid asset requirements);⁸⁴⁰ or (iii) develop a more tailored liquidity risk

⁸³⁶ References to “In-Kind ETFs” include both ETFs and ETMFs that meet the requirements in rule 22e-4(a)(9)) (defining an “In-Kind ETF”). See *infra* footnote 851 and accompanying text (discussing a requirement that ETFs report their status as an “In-Kind ETF,” when applicable, on Form N-CEN).

⁸³⁷ ETFs that redeem in cash, or that do not qualify otherwise as “In-Kind ETFs” (as defined in rule 22e-4(a)(9)) will be subject to the full set of liquidity risk management program elements, including the classification and highly liquid investment minimum requirements. See rule 22e-4(b)(1)(i)-(iii). Throughout the discussion of liquidity risk management programs in this Release, references to “funds” include ETFs that redeem in cash, except where specifically indicated otherwise.

⁸³⁸ See, e.g., ICI Comment Letter; BlackRock Comment Letter; Invesco Comment Letter; SIFMA Comment Letter I.

⁸³⁹ See, e.g., Invesco Comment Letter (suggesting an exemption for all ETFs); FSR Comment Letter (suggesting an exemption for In-Kind ETFs); SIFMA Comment Letter I (suggesting an exemption for In-Kind ETFs).

⁸⁴⁰ See, e.g., State Street Comment Letter (suggesting an exemption for In-Kind ETFs from the portfolio liquidity classification and three-day liquid asset requirements); Dechert Comment Letter (suggesting an exemption for all ETFs from the three-day liquid asset requirements); ICI Comment Letter I (suggesting an exemption for In-Kind ETFs from the three-day liquid asset requirements); BlackRock Comment Letter (stating that the days-to-cash framework in the portfolio liquidity classification requirements is irrelevant for ETFs and suggesting an exemption for at least In-Kind ETFs from the three-day liquid asset requirements).

management program applicable to ETFs.⁸⁴¹

As noted above, we believe that ETFs, like mutual funds, face liquidity risks.⁸⁴² But we agree that In-Kind ETFs have different liquidity risks than funds (including ETFs) that redeem in cash. This is particularly the case because the redeeming shareholder (*i.e.*, authorized participant or its customer), rather than the ETF, typically will bear the direct costs associated with its liquidity needs, given that if that authorized participant (or its customer) wants cash, it must sell the in-kind assets and bear the costs of doing so. Therefore, after further analysis, including carefully considering the comments received, we are adopting tailored liquidity risk management program requirements for ETFs as discussed further below.

We decline to exempt all ETFs from the rule entirely, because we believe ETFs that redeem more than a *de minimis* amount in cash can have substantially similar liquidity risks as mutual funds, and we believe that all ETFs have certain unique additional risks discussed below. In addition, while we agree that the classification and highly liquid investment minimum components of the liquidity risk management program we are adopting for other funds are not necessary for In-Kind ETFs, we believe that In-Kind ETFs must maintain sufficient liquidity and assess liquidity-related risks that could affect their shareholders. In this regard, the liquidity of an ETF's portfolio positions is a factor that may contribute to the bid-ask spread, the effective functioning of the ETF's arbitrage mechanism and the ETF's shares trading at a price that is at or close to NAV.⁸⁴³ For example, if an ETF holds illiquid or less liquid investments, this will be

⁸⁴¹ See BlackRock Comment Letter; FSR Comment Letter.

⁸⁴² We note, as discussed previously, that ETFs will be subject to the requirement to implement an overall liquidity risk management program, including the requirement that the fund determine whether its investment strategy is appropriate for an open-end fund.

⁸⁴³ By this we mean that, and we generally expect that, each day and over time an ETF's shares will trade at or close to the ETF's intraday value. See 2015 ETP Request for Comment, *supra* footnote 29 ("When

reflected in the redemption basket transferred to a redeeming authorized participant (or its customer), which might result in a liquidity cost to the authorized participant (or its customer or other market participants). This increased cost could alter the authorized participant's decisions regarding exactly when or whether to create or redeem the ETF's creation units, possibly resulting in the ETF trading at increased spreads and/or a price that deviates significantly from its NAV and ultimately adversely impacting the ETF's investors.

Over the years, the Commission and staff have explored the structural and operational differences between ETFs (including those that redeem in kind) and other open-end funds (that redeem in cash), solicited public comment, including on issues related to the potential effects of illiquidity on the operation of ETFs and evaluated the trading of ETFs in times of market stress.⁸⁴⁴ In 2015, the Commission solicited public comment on topics related to the listing and trading of exchange-traded investment products ("ETPs") on national securities exchanges and sales of these products by broker-dealers.⁸⁴⁵ Of relevance here, the Commission sought comment on all aspects of the arbitrage mechanism for ETPs (including ETFs), including what characteristics of an ETP would facilitate or hinder the alignment of secondary market share

providing exemptive or no-action relief under the Exchange Act, the Commission and its staff have analyzed and relied upon the representations from ETP issuers regarding the continuing existence of effective and efficient arbitrage to help ensure that the secondary market prices of ETP Securities do not vary substantially from the value of their underlying portfolio or reference assets."); *infra* footnote 857. Because an ETF does not determine its NAV in real time throughout the trading day, in assessing whether this expectation is met, one looks to the difference between the ETF shares' closing market price and the ETF's end-of-day net asset value (*i.e.*, its "premium" or "discount"). See 2015 ETP Request for Comment, *supra* footnote 29. With regard to ETMFs, as noted in the Proposing Release, ETMF market makers would not engage in the same kind of arbitrage as ETF market makers because all trading prices of ETMF shares are linked to NAV. See Proposing Release, *supra* footnote 9, at n.458.

⁸⁴⁴ See, *e.g.*, ETF Proposing Release, *supra* footnote 27; Staff of the Office of Analytics and Research, Division of Trading and Markets, Research Note: Equity Market Volatility on August 24, 2015 (Dec. 2015) ("August 24 Staff Report"), available at https://www.sec.gov/marketstructure/research/equity_market_volatility.pdf.

⁸⁴⁵ See 2015 ETP Request for Comment, *supra* footnote 29 at n.10. The 2015 ETP Request for Comment did not address ETMFs' listing and trading given that, at the time, no ETMFs were listed or traded on an exchange.

prices with the value of the underlying portfolio reference assets and how arbitrage mechanisms work in the case of ETPs with less-liquid underlying or reference assets. The questions posed in this Release, as well as the comments received, demonstrate the importance of assessing liquidity risks and liquidity needs for all ETFs, including In-Kind ETFs. We considered the comments received on the 2015 ETP Request for Comment in formulating the proposed rule and the final rule we are adopting today.

1. *Definitions*

Under the final rule, all ETFs must consider certain additional liquidity risk assessment factors, if applicable, but only In-Kind ETFs will be excluded from the classification and highly liquid investment minimum requirements.⁸⁴⁶ We are defining an exchange-traded fund or “ETF” as “an open-end management investment company (or series or class thereof), the shares of which are listed and traded on a national securities exchange, and that has formed and operates under an exemptive order under the Act granted by the Commission or in reliance on an exemptive rule adopted by the Commission.”⁸⁴⁷ We are defining an “In-Kind ETF” to mean an ETF that meets redemptions through in-kind transfers of securities, positions, and assets other than a *de minimis* amount of cash and that publishes its portfolio holdings daily.⁸⁴⁸ The

⁸⁴⁶ We note that an in-kind ETF may not be able to avail itself of the tailored liquidity risk management program where the in-kind ETF operates as a class of a fund that also has mutual fund classes. In such a case, for example, the liquidity classification requirement would apply to the entire portfolio, thus applying to both in-kind ETFs and other funds (*e.g.*, mutual funds). UITs, including ETFs structured as UITs, will not be subject to the majority of the liquidity risk management program requirements. *See supra* section III.A.2.d and *infra* section III.K (discussing rule 22e-4(c), that requires, on or before the date of initial deposit of portfolio securities into a registered UIT (including ETF UITs), the principal underwriter or depositor to determine that the portion of the illiquid investments that the UIT holds or will hold at the date of deposit that are assets is consistent with the redeemable nature of the securities it issues and maintain a record of that determination for the life of the UIT and for five years thereafter).

⁸⁴⁷ *See* rule 22e-4(a)(4). We note that this definition is substantially the same as the definition of ETF that we had proposed as amendments to rule 22c-1. We also note that this definition is substantially the same as the definition in Form N-1A.

⁸⁴⁸ *See* rule 22e-4(a)(9). Cash means cash held in U.S. dollars, and would not include, for example, cash

definition of “In-Kind ETF” is intended to distinguish this type of ETF, which, as described throughout this Release, has a unique structure and raises different liquidity risks than other open-end funds (that in most cases redeem shares in cash). As discussed below, we believe that this definition of an In-Kind ETF facilitates this distinction by limiting an ETF’s redemption basket to in-kind securities and other assets, and no more than a *de minimis* amount of cash. In addition, the definition requires that an In-Kind ETF publish the ETF’s holdings daily.⁸⁴⁹ This daily publishing of ETF holdings (or “daily transparency”) is a condition of many of our ETF orders, and we understand that even for ETFs not subject to that condition, most provide this daily transparency as a matter of course.⁸⁵⁰ We believe that requiring this daily transparency will permit the sophisticated authorized participants that directly interact with the ETF to effectively evaluate the liquidity of the ETF’s holdings. We also note that we are requiring an ETF to report publicly to the Commission on Form N-CEN its designation as an In-Kind ETF as defined in the final rule so that there is clarity on which ETFs meet this definition and are thus subject to the tailored liquidity risk management program.⁸⁵¹

Consistent with our exemptive orders, we recognize that there may be circumstances

equivalents or foreign currency.

⁸⁴⁹ Today, such daily publishing of ETF holdings involves posting on the ETF’s website on each day that the national securities exchange on which the fund’s shares are listed is open for business, before commencement of trading of fund shares on the exchange, the identities and quantities of the securities, assets or other positions held by the fund, or its respective master fund, that will form the basis for the fund’s calculation of net asset value at the end of the business day.

⁸⁵⁰ See, e.g., Foreside ETF Trust, *et al.*, Investment Company Act Release No. 32284 (Sep. 26, 2016) [81 FR 68079 (Oct. 3, 2016)] (notice of application). We note that ETMFs are not required to provide such daily transparency under their orders, and thus would need to choose to provide such daily transparency if they wished to take advantage if this provision.

⁸⁵¹ See Item E.5 of Form N-CEN (“Is the Fund an ‘In-Kind Exchange-Traded Fund’ as defined in rule 22e-4 under the Act?”). In addition, ETFs (including In-Kind ETFs) will be required to report on Form N-CEN the average percentage value of creation units purchased and redeemed both with in-kind securities and assets and with cash, during the reporting period. See Investment Company Reporting Modernization Adopting Release, *supra* footnote 120.

under which an In-Kind ETF may use cash to meet redemptions (in addition to securities and other non-cash assets). For example, today an ETF that typically redeems in-kind may use cash to: (i) make up any difference between the NAV attributable to a creation unit and the aggregate market value of the creation basket exchanged for the creation unit (generally referred to as the “balancing amount” in an ETF’s exemptive order); (ii) correspond to uninvested cash in the fund’s portfolio (which, to the extent that this amount of cash equals the fund’s cash position in the portfolio, would be an “in-kind” redemption); or (iii) substitute for a portfolio position or asset that is not eligible to be transferred in kind (*e.g.*, a derivative instrument that, pursuant to contract, is not transferrable).⁸⁵² By their nature, “balancing amounts” are small amounts and thus would be *de minimis*. Accordingly, there are a number of reasons, including those described above, why an In-Kind ETF may find it prudent or necessary to use a *de minimis* amount of cash to meet redemptions. However, if an In-Kind ETF were to use more than a *de minimis* amount of cash (as determined in accordance with its written policies and procedures) to meet redemptions (for any of the reasons discussed above or otherwise), it would not qualify as an In-Kind ETF and would need to comply with the liquidity risk management program requirements applicable to other ETFs.⁸⁵³ By way of example, an ETF that normally redeems in-kind, but delivers all cash to a single authorized participant that elects to receive cash, would not be an ETF that uses a *de minimis* amount of cash. However, depending on the circumstances, an ETF

⁸⁵² We note that depending on the size of the position being substituted for, such a transaction may not always be *de minimis*, and thus the ETF may no longer be eligible to qualify for this provision.

⁸⁵³ In-Kind ETFs are subject to rule 22e-4, including the obligation to establish written policies and procedures for a liquidity risk management program. As part of these written policies and procedures, we would expect that an In-Kind ETF would determine the amount of cash and the types of transactions that it will treat as *de minimis*. If for any reason, an In-Kind ETF was not able to meet redemptions with more than a *de minimis* amount of cash consistent with those policies and procedures, such a fund would no longer qualify as an In-Kind ETF and would thus no longer be eligible to rely on this provision. See rule 22e-4(b)(1)(ii).

that delivers cash only on one occasion may be able to conclude that it qualifies as an In-Kind ETF in later years if such circumstances are not repeated.

An In-Kind ETF generally should describe in its written policies and procedures for its liquidity risk management program,⁸⁵⁴ to the extent applicable, how the fund analyzes the ability of the ETF to redeem in-kind in all market conditions such that it is unlikely to suddenly fail to continue to qualify for this exception to the classification and highly liquid investment minimum requirements, the circumstances in which the In-Kind ETF may use a *de minimis* amount of cash to meet a redemption, and what amount of cash would qualify as such. As part of its policies and procedures, an In-Kind ETF generally should also describe how the ETF will manage and/or approve any portion of a redemption that is paid in cash and document the ETF's determination that such a cash amount is *de minimis*. In making these determinations, an In-Kind ETF may consider, if applicable: (i) the amount (both in dollars and as a percentage of the entire redemption basket) and frequency with which cash is used to meet redemptions; and (ii) the circumstances and rationale for using cash to meet redemptions.

As discussed above, in-kind redemptions mitigate certain liquidity risks, but only to the extent that the fund can use in-kind redemptions. This factor is particularly important for an In-Kind ETF because such a fund may only include in its redemption basket a *de minimis* amount of cash if it wants to qualify for the exclusion from the classification and highly liquid investment minimum requirements. If, for example, market conditions change and the fund can no longer meet redemptions without more than a *de minimis* amount of cash, the fund would no longer qualify as an In-Kind ETF. As a result, the ETF would be required to comply with additional

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Rule 22e-4 requires that an In-Kind ETF adopt and implement a written liquidity risk management program reasonably designed to assess and manage the fund's liquidity risk. See rule 22e-4(b).

requirements under its liquidity risk management program (including liquidity portfolio classifications and highly liquid investment minimum).

2. *Tailored Program Elements for ETFs*

By adopting certain tailored liquidity risk management program requirements for ETFs, we recognize, consistent with comments received, that both ETFs that redeem in cash and In-Kind ETFs present unique liquidity risks as compared to other funds. Some of these unique risks were not specifically addressed in the generally applicable liquidity risk management program as proposed, while still other aspects of the general program were less applicable to the actual operation of In-Kind ETFs, particularly those that offer daily transparency of holdings. Our final rule is designed to address both issues. Accordingly, an ETF will be required to adopt and implement a tailored liquidity risk management program that has the unique elements discussed below, in addition to the elements discussed elsewhere in this Release.

Liquidity Risk Assessment

An ETF, like other open-end funds, will be required to assess and manage the fund's "liquidity risk"—defined as the risk that a fund could not meet requests to redeem shares issued by the fund without significant dilution of remaining investors' interests in the fund.⁸⁵⁵ As discussed above, we believe that this definition, modified from the proposal as informed by commenter input, is appropriate for all open-end funds, whether the fund redeems in cash or in kind and whether the fund is a mutual fund or an ETF.⁸⁵⁶

Illiquidity in an ETF's portfolio or its basket assets can adversely impact investors by

⁸⁵⁵ See rule 22e-4(a)(11) (defining liquidity risk); rule 22e-4(b) (requiring each fund and in-kind ETF to adopt and implement a written liquidity risk management program).

⁸⁵⁶ See *supra* section III.B.1 for a discussion of the definition of liquidity risk, including comments received and modifications made from the proposal.

imposing costs on market participants that could then potentially be reflected in a widening of the bid-ask spread of the ETF shares. This widening could result in shareholders transacting in an ETF's shares at market prices that do not maintain a "close tie" to the NAV per share of the ETF. As we have previously stated, a close tie between ETF share market prices and the ETF's NAV per share is important because section 22(d) and rule 22c-1 under the Act are designed to require that all fund shareholders be treated equitably.⁸⁵⁷ In addition, declining liquidity in an ETF's portfolio also could affect a market maker's ability or willingness to make a market in the product because arbitrage opportunities would be more difficult to evaluate.⁸⁵⁸ This, in turn, could affect the liquidity of the ETF shares, making it difficult for market participants to price, trade and hedge.

Under the final rule, ETFs will be required to assess, manage, and periodically review the fund's liquidity risk and needs, taking into account, as applicable, the liquidity risk factors for all funds (as modified from the proposal) discussed previously.⁸⁵⁹ ETFs also must consider the following additional factors, as applicable, that are specific to the structure and operation of ETFs:

⁸⁵⁷ See generally H.R. REP. NO. 2639, 76th Cong., 3d Sess., 8 (1940). See also Investment Trusts and Investment Companies: Report of the Securities and Exchange Commission, H.R. Doc. No. 279, 76th Cong., 1st Sess., pt. 3, at 860-874 (1939); Spruce ETF Trust, *et al.*, Investment Company Act Release No. 31301 (Oct. 21, 2014) [79 FR 63964 (Oct. 27, 2014)] (notice of application) (to the extent that investors would have to exit at a price substantially below the NAV of the ETF, this would be "contrary to the foundational principle underlying section 22(d) and rule 22c-1 under the Act that all shareholders be treated equitably when buying and selling their fund shares"); Precidian ETFs Trust, *et al.*, Investment Company Act Release No. 31300 (Oct. 21, 2014) [79 FR 63971 (Oct. 27, 2014)] (notice of application) ("A close tie between market price and NAV per share of the ETF is the foundation for why the prices at which retail investors buy and sell ETF shares are similar to the prices at which Authorized Participants are able to buy and redeem shares directly from the ETF at NAV. This close tie between prices paid by retail investors and Authorized Participants is important because section 22(d) and rule 22c-1 under the Act are designed to require that all fund shareholders be treated equitably when buying and selling their fund shares.").

⁸⁵⁸ See *supra* footnote 843 and accompanying text.

⁸⁵⁹ See *supra* section III.B.2 (discussing the factors as proposed and how the factors have been amended in the final rule to address commenter concerns). We recognize that not all of these factors may be applicable to all ETFs (and that some mutual funds would not need to consider certain factors relevant only to ETFs).

- The relationship between the ETF's portfolio liquidity and the way in which, and the prices and spreads at which, ETF shares trade, including the efficiency of the arbitrage function and the level of active participation by market participants (including authorized participants);⁸⁶⁰ and
- The effect of the composition of baskets on the overall liquidity of the ETF's portfolio.

We considered, in establishing these factors, comments received on the Proposing Release and the 2015 ETP Request for Comment, as well as the unique structure and operation of ETFs. We discuss these factors in more detail below. As we noted with regard to other open-end funds, the list of liquidity risk assessment factors for ETFs is not meant to be exhaustive. Rather, an ETF generally should incorporate other considerations in assessing its liquidity risk that it considers appropriate.

ETF Trading - Arbitrage Function and Level of Activity of Market Participants

As discussed above, the ETF structure permits only authorized participants to purchase or redeem shares from an ETF and to transact in the ETF's shares at the NAV per share. The combination of the creation and redemption process with secondary market trading in ETF shares provides arbitrage opportunities that, if effective, keep the market price of the ETF's shares at or close to the NAV per share of the ETF.⁸⁶¹ If an ETF has a significant amount of illiquid securities in its portfolio, market participants may find it more difficult to evaluate

⁸⁶⁰ We note that this factor will not be applicable to ETMFs to the same extent it applies to ETFs. ETMF market makers will not engage in the same kind of arbitrage as ETF market makers and will assume no intraday market risk with their positions in ETMF shares as all trading prices are linked to NAV. See ETMF Notice, *supra* at note 31 at n.21 and accompanying text.

⁸⁶¹ We recognize that an ETF is not as likely as a mutual fund to sell or in-kind transfer its portfolio holdings in order to meet redemptions because an authorized participant generally will not seek to create or redeem a basket with the ETF until there is a sufficient deviation between the ETF shares' market price and the ETF's NAV. As discussed previously, ETMF market makers would not engage in the same kind of arbitrage as ETF market makers because all trading prices of ETMF shares are linked to NAV. See *supra* footnote 836.

opportunities and ultimately participate in the arbitrage process (because of challenges in pricing, trading, and hedging their exposure to the ETF). If the arbitrage function fails to operate efficiently, investors could buy and sell the ETF shares at prices that are not at or close to the NAV per share of the ETF, which may raise concerns relating to section 22(d) of and rule 22c-1 under the Act regarding whether all fund shareholders (authorized participants and retail investors) are being treated equitably.⁸⁶² We discussed in the Proposing Release how the effective functioning of this arbitrage mechanism has been pivotal to the operation of ETFs (and to the Commission’s approval of exemptions that allow their operation) and how the liquidity of the ETF’s portfolio positions is a factor that contributes to the effective functioning of this arbitrage mechanism.⁸⁶³

Commenters to the 2015 ETP Request for Comment also highlighted the importance of portfolio liquidity on the efficiency of the ETF arbitrage mechanism. During an extraordinary period of market volatility on August 24, 2015 (“the August 24th Market Events”), for example, many ETFs traded at prices materially different from the NAV of the funds’ underlying portfolio assets.⁸⁶⁴ One commenter on the 2015 ETP Request for Comment, in observing the August 24th Market Events, noted that there are many reasons an ETF may trade at a substantial difference from the NAV of its underlying constituent stocks, including a lack of liquidity in the ETF constituents and a lack of liquidity in the ETF shares themselves.⁸⁶⁵ Another commenter suggested that, where the market for an underlying asset is illiquid, no amount of arbitrage will

⁸⁶² See *supra* footnote 857.

⁸⁶³ See Proposing Release, *supra* footnote 9, at nn.23-30 and accompanying text.

⁸⁶⁴ August 24 Staff Report, *supra* footnote 844, at 5 (discussing large ETFs that traded at “substantial discounts” to the ETFs’ NAVs).

⁸⁶⁵ See Comment Letter of Modern Markets Initiative on 2015 ETP Request for Comment (Sept. 14, 2015), available at <https://www.sec.gov/comments/s7-11-15/s71115-39.pdf>.

be sufficient to equalize market discrepancies between underlying assets and the fund's price, especially during times of market stress.⁸⁶⁶ In addition, the level of active participation by market participants, including market makers and authorized participants, in the trading of ETF shares is important to the way in which, and the prices and spreads at which, shares trade. As one commenter on the 2015 ETP Request for Comment noted, the more authorized participants that are active in the market, the more opportunities there are to trade and provide liquidity.⁸⁶⁷ For these reasons, we are requiring that an ETF consider the relationship between the liquidity of its portfolio and the arbitrage function in assessing its liquidity risk (where applicable).

Basket Composition

In-Kind ETFs create and redeem using baskets of securities and other assets. These baskets may be highly correlated to the ETF's overall portfolio. As we noted in the Proposing Release, the composition of the basket can affect the liquidity of the ETF's portfolio.⁸⁶⁸ For example, an ETF whose basket does not reflect a *pro rata* share of the fund's portfolio may alter the liquidity profile of the ETF's portfolio and may adversely affect the fund's future ability to meet cash redemptions or mitigate shareholder dilution.⁸⁶⁹ We recognize that certain market incentives exist to mitigate the likelihood of significant or frequent divergence between an ETF's basket and the fund's portfolio. For example, if an ETF's basket is not correlated with the fund's portfolio, the ETF likely will develop a higher tracking error. Nonetheless, such divergence may

⁸⁶⁶ See Comment Letter of Occupy the SEC on 2015 ETP Request for Comment (Aug. 21, 2015), *available at* <https://www.sec.gov/comments/s7-11-15/s71115-32.pdf>.

⁸⁶⁷ See Comment Letter of Flow Traders Group on 2015 ETP Request for Comment (Aug. 17, 2015), *available at* <https://www.sec.gov/comments/s7-11-15/s71115-25.pdf>.

⁸⁶⁸ See Proposing Release, *supra* footnote 9, at nn.23-24, 156-157 and accompanying text.

⁸⁶⁹ Under limited circumstances, an index ETF's redemption basket also may differ from the portfolio deposit made by the authorized participant.

occur, with potentially adverse consequences to the remaining shareholders in the fund.

Accordingly, we are requiring an ETF to consider the effect of its basket composition on the fund's overall portfolio liquidity (even if an ETF's creation and redemption baskets reflect a *pro rata* share of the ETF's portfolio).⁸⁷⁰

A few commenters also suggested that increasing ETF basket flexibility and eliminating the two percent limitation on redemption fees for ETFs would help enhance ETF liquidity and the orderly and efficient operation of the arbitrage function.⁸⁷¹ We are not addressing these issues here because they are beyond the scope of this rulemaking.

Portfolio Liquidity Classification

Under the final rule, an open-end fund (other than an In-Kind ETF) will be required to classify each of the fund's portfolio investments (generally by asset class) into one of four categories: highly liquid investments; moderately liquid investments; less liquid investments; and illiquid investments. A number of commenters noted, as the Commission recognized in the Proposing Release and as we reiterate above, that an open-end fund (including an open-end ETF) that redeems in cash has a different nature of liquidity risk than an ETF that redeems through in-kind transfers of securities, positions, and other assets.⁸⁷²

We note, for example, that when a mutual fund experiences daily net redemptions, the

⁸⁷⁰ One commenter on the 2015 ETP Request for Comment, discussing the potential effects of basket composition on an ETF's overall liquidity, noted that an ETF whose basket reflects a *pro rata* share of the ETF's portfolio will have a larger number of securities in the basket, with the size of each individual position potentially being smaller. This commenter suggested that, as a result: (i) the smaller lots can be more difficult for an authorized participant to trade efficiently, thereby increasing the bid/ask spreads of the ETF; and (ii) the *pro rata* basket is more likely to include less liquid or even illiquid securities that an ETF not subject to the *pro rata* requirement can exclude. See Comment Letter of Charles Schwab & Co. on the 2015 ETP Request for Comment (Aug. 17, 2015), available at <https://www.sec.gov/comments/s7-11-15/s71115-28.pdf>.

⁸⁷¹ See, e.g., BlackRock Comment Letter; ICI Comment Letter I; Fidelity Comment Letter.

⁸⁷² See, e.g., BlackRock Comment Letter; Proposing Release, *supra* footnote 9.

fund will likely be required to sell its portfolio holdings in order to generate cash to meet redemptions. To the extent that a fund must sell a less liquid security in order to generate the cash proceeds required, there is enhanced liquidity risk—that is, risk that a fund cannot meet redemptions without significant dilution of remaining investors. Therefore, we believe that it is appropriate for such a fund to assess its liquidity risk by analyzing the amount of time it will take, in current market conditions, to convert its portfolio assets (without the conversion (or in some cases, sale or disposition) significantly changing the market value of the investments).

As discussed above, an In-Kind ETF's liquidity risk is different from the liquidity risk of a fund that generally meets redemptions in cash. Rather than liquidity risk affecting investors directly in their ability to receive cash redemption proceeds, illiquidity in an ETF's portfolio or its basket assets can adversely impact investors by contributing to a widening of the bid-ask spread of the ETF shares. This widening could result in shareholders transacting in an ETF's shares at market prices that do not maintain a "close tie" to the NAV per share of the ETF. The declining liquidity in an ETF's portfolio also could affect the arbitrage function related to the ETF, as discussed above.

Despite our concern about the specific liquidity-related risks in ETFs described above, we view the liquidity classification information for In-Kind ETFs as less necessary for the Commission, investors, and other potential users of this information because, unlike for mutual funds, the daily identity and weightings of ETF portfolio holdings are well known to authorized participants and other ETF liquidity providers, and would be required to be disclosed daily under our final rules to qualify for the exemption from the classification requirement.⁸⁷³ Authorized

⁸⁷³ See rule 22e-4(a)(9). See also, Precidian ETFs Trust, *et al.*, Investment Company Act Release No. 31300 (Oct. 21, 2014) [79 FR 63971 (Oct. 27, 2014)] (notice of application) ("The Commission therefore has granted such exemptive relief to date only to those actively managed ETFs that have provided daily

participants are the only shareholders that are permitted to transact with the ETF at NAV, and these sophisticated broker-dealers are more likely to be able to readily discern the ETF's liquidity profile from this daily portfolio information.

We continue to believe that it is important that an In-Kind ETF maintain sufficient liquidity in its portfolio. Accordingly, the final rule requires that an In-Kind ETF, in assessing liquidity risk, take into account certain factors that are more tailored to the way in which such funds operate and the resulting liquidity risks. For example, those factors include considering the relationship between portfolio liquidity and the arbitrage function, as well as the effect of the composition of in-kind baskets on the overall liquidity of the fund's portfolio. However, given the more limited utility of this classification information for the reasons described above, and considering the burdens of tracking and reporting it to us, we do not believe that it is appropriate to require an In-Kind ETF to classify its portfolio investments into liquidity categories based on a "days-to-cash" framework and report that information to the Commission.⁸⁷⁴

transparency of their portfolio holdings."). The identity and weightings of the constituents of affiliated indices are required by exemptive application condition to be made publicly available on a daily basis. See, e.g., Columbia ETF Trust I, et. al., Investment Company Act Release No. 32134 (May 31, 2016) (order) (related application with conditions *available at*: <https://www.sec.gov/Archives/edgar/data/1233991/000119312516578039/d194333d40appa.htm>). The identity and weightings of the constituents of non-affiliated indexes are not required to be made publicly available on a daily basis. However, because: (1) these index compositions are generally broadly available to liquidity providers either publicly, by subscription or by license; and (2) index-based ETFs publish their purchase and redemption baskets daily, and those baskets generally are tracking baskets that represent either a *pro rata* replication of the index or a sampling of the index, authorized participants and other ETF liquidity providers should nonetheless be able to determine the liquidity profile of a non-affiliated, index-based ETF on a daily basis. Unlike ETFs, ETMF are only required to provide the same disclosure about the identity and weightings of their portfolio holdings as mutual funds.

⁸⁷⁴

In the Proposing Release, we proposed to apply the portfolio liquidity classification requirement to open-end ETFs (in addition to other open-end funds), in part, because, ETFs permit authorized participants to redeem in cash (even if these funds typically redeem in kind). See Proposing Release, *supra* footnote 9, at n. 129 and accompanying text. Accordingly, we determined that it was appropriate to require that all ETFs classify their portfolio liquidity by assessing the fund's ability to convert portfolio positions into cash. The final rule, however, establishes a more tailored regulatory regime for In-Kind ETFs, that, by definition, do not meet redemptions through more than a *de minimis* amount of cash. Thus, under the final rule, we do not believe it is necessary to require that In-Kind ETFs be subject to the portfolio liquidity classification

Highly Liquid Investment Minimum

Under the final rule, an open-end fund (other than an In-Kind ETF) will be required to determine a percentage of the fund’s net assets that it will invest in assets that are highly liquid investments. The fund will determine its highly liquid investment minimum using the first category in the liquidity classification requirement (*i.e.*, cash and assets convertible into cash within three business days). The fund also will be required to take certain actions when the fund’s highly liquid investments fall below its minimum.⁸⁷⁵

In determining to adopt a highly liquid investment minimum for certain open-end funds, we considered comments received on proposed rule 22e-4, which would have required a “three-day liquid asset minimum.”⁸⁷⁶ Multiple commenters suggested that the concept of a three-day liquid asset minimum does not take into account the unique structural aspects of ETFs.⁸⁷⁷ One commenter suggested that the concept of “convertible into cash within three business days” has little relevance to an ETF that does not liquidate securities to meet cash redemptions.⁸⁷⁸

Consistent with the comments received, we are not requiring that an In-Kind ETF adopt a highly liquid investment minimum. First, an open-end fund will be required to establish its highly liquid investment minimum using its “highly liquid investment” portfolio classification. As discussed earlier, we have determined that it is not necessary to require that an In-Kind ETF classify its portfolio liquidity (*e.g.*, into “highly liquid investment,” or “moderately liquid investment”). The portfolio liquidity classifications incorporate a “convertible to cash” concept

requirement (which is based on a “days-to-cash” or “days-to-sell” framework).

⁸⁷⁵ See *supra* section III.D; rule 22e-4(b)(1)(iii).

⁸⁷⁶ See *supra* section III.D.

⁸⁷⁷ See, *e.g.*, Dechert Comment Letter; ICI Comment Letter I; BlackRock Comment Letter; SIFMA Comment Letter I.

⁸⁷⁸ See BlackRock Comment Letter.

that is generally not relevant for an In-Kind ETF (except in managing cash holdings to no greater than a *de minimis* amount of cash). Because the highly liquid investment minimum incorporates the same “convertible to cash” concept as the portfolio liquidity classifications (which, for the reasons discussed above, we are not requiring for In-Kind ETFs), we do not believe it is appropriate to require that an In-Kind ETF establish a highly liquid investment minimum.

Second, the highly liquid investment minimum, as discussed above, is intended to increase the likelihood that an open-end fund meets redemption requests without significant dilution of remaining investors. Open-end funds that redeem in cash and In-Kind ETFs operate differently, and therefore evaluate liquidity risk differently. We believe, for example, that it is necessary for an open-end fund that meets redemptions in cash (including an ETF) to manage its liquidity risk by establishing a minimum amount of highly liquid investments that, as defined in the final rule, are quickly convertible to cash (within 3 business days). In this way, the highly liquid investment minimum increases the likelihood that the fund will be able to meet redemption requests in cash without significant dilution of remaining investors. Conversely, we believe, for example, that it is more appropriate for an In-Kind ETF that meets redemptions through in-kind transfers of securities, positions, and other assets (and no more than a *de minimis* amount of cash) to, among other things, assess its liquidity risk through consideration of the factors we have discussed above (*e.g.*, assessing the relationship between portfolio liquidity and the arbitrage function). For these reasons, we are excluding In-Kind ETFs from the highly liquid investment minimum requirement in rule 22e-4.

We discussed above the requirement that funds (including ETFs) other than In-Kind

ETFs establish a highly liquid investment minimum.⁸⁷⁹ One commenter noted that the three-day liquid asset minimum might increase tracking error, or force an ETF to either violate the terms of its exemptive order,⁸⁸⁰ or refuse in-kind purchase requests from authorized participants, thus interfering with the arbitrage mechanism that keeps ETF market prices close to their underlying NAV.⁸⁸¹ An ETF that does not qualify as an In-Kind ETF necessarily meets redemptions through more than a *de minimis* amount of cash. For the reasons discussed above, we believe that it is appropriate to require a fund that meets redemptions, at least partially in cash, to comply with the liquidity classification and highly liquid investment minimum requirements.⁸⁸² With regard to tracking error, an ETF with an index-based strategy, like other open-end funds, needs to balance its implementation of its investment strategy with the need for appropriate liquidity risk management given its obligation to meet redemptions without significant dilution. We recognize that this balancing may result in tracking error, and such a fund may wish to address and manage this risk through appropriately designed policies and procedures. This concern, along with the concerns regarding potentially violating an exemptive order, or refusing an in-kind purchase request from an authorized participant, are also mitigated by the additional flexibility provided for in the final rule. Under the final rule (as compared with the proposal), a fund that breaches its highly liquid investment minimum will be subject to certain board reporting requirements, but will not be barred from purchasing non-conforming assets (as would

⁸⁷⁹ See *supra* section III.D.

⁸⁸⁰ See ICI Comment Letter I (noting that if an ETF was prohibited from accepting a less liquid asset, the ETF may violate a requirement that that all creation baskets correspond *pro rata* to the ETF's portfolio positions).

⁸⁸¹ *Id.*

⁸⁸² An ETF that does not qualify as an In-Kind ETF would not be required to determine and periodically review a highly liquid investment minimum if it holds primarily highly liquid investments. See *supra* section III.D.

have been required as proposed).⁸⁸³ Under the final rule, therefore, a fund will have flexibility to address potentially adverse situations, including tracking error, that may arise as a result of complying with the highly liquid investment minimum.

K. Limitation on Unit Investment Trusts' Investments in Illiquid Investments

As noted above, the proposed scope of rule 22e-4 did not include UITs, although we requested comment on whether UITs should be included within its scope, and whether we should include specific limitations on UIT's holdings of illiquid assets at inception.⁸⁸⁴ As adopted today, UITs remain excluded from the rule's liquidity risk management program requirements. However, as suggested by some commenters, we are now requiring a limited liquidity review for UITs. Under the final rules, the UIT's principal underwriter or depositor must determine, on or before the initial deposit of portfolio securities into the UIT, that the portion of the illiquid investments that the UIT holds or will hold at the date of deposit that are assets is consistent with the redeemable nature of the securities it issues.⁸⁸⁵

As discussed in detail in the Proposing Release, most UITs serve as separate account vehicles used to fund variable annuity and variable life insurance contracts,⁸⁸⁶ and these UITs essentially function as pass-through vehicles, investing principally in securities of one or more open-end investment companies that would be subject to rule 22e-4.⁸⁸⁷ Also, UITs are not

⁸⁸³ See *supra* section III.D.

⁸⁸⁴ See *supra* section III.A.2.d; Proposing Release, *supra* footnote 9 at section III.A.3 and comment requests following n 156 ("alternatively, should we require UITs to meet certain minimum liquidity requirements at the time of deposit of the securities...").

⁸⁸⁵ See rule 22e-4(c). The rule also requires UITs to maintain a record of that determination for the life of the UIT and for five years thereafter. See also Rule 144A Release *supra* footnote 37 at n.61 (discussing liquidity requirements for UITs prior to the adoption of rule 22e-4).

⁸⁸⁶ See Proposing Release, *supra* footnote 9, at n.139 and accompanying text. We currently estimate that approximately 92.9% of UITs serve as separate account vehicles (based on data as of December 31, 2015).

⁸⁸⁷ See *id.*, at nn.139-140 and accompanying text.

actively managed, and thus certain provisions of rule 22e-4 that require a fund's board to approve and oversee the fund's liquidity risk management program and the fund's adviser, officer, or officers to administer it are inapposite to the management structure of a UIT.⁸⁸⁸

Several commenters argued (in the context of ETFs organized as UITs) that UITs may be subject to liquidity risk comparable to other funds.⁸⁸⁹ As discussed previously, in recognition of the different unmanaged organizational structure of UITs, we continue to believe that including UITs within the scope of rule 22e-4's liquidity risk management program requirements (or even the tailored program requirements for ETFs that redeem in kind) would not be feasible. However, we recognize that UITs may in some circumstances be subject to liquidity risk (particularly where the UIT is not a pass-through vehicle and the sponsor does not maintain an active secondary market for UIT shares) as investor redemption requests may lead to dissipation of UIT assets, forcing a UIT to sell securities that it holds to meet redemptions.

Accordingly, today we are adopting a limited liquidity review requirement for UITs to require that a UIT's principal underwriter or depositor determine upon initial deposit of a registered UIT that the level of illiquid investments it will hold is consistent with the redeemable nature of the securities it issues.⁸⁹⁰ Though commenters focused their discussion on UITs that are ETFs, we believe it is appropriate for the principal underwriter or depositor of any registered

⁸⁸⁸ See *id.*, at nn.141-143 and accompanying text.

⁸⁸⁹ See Anonymous Comment Letter I; BlackRock Comment Letter. One of these commenters also observed that, while there are few ETFs that are UITs, some of the largest ETFs in the world (by volume/value traded) are UIT ETFs, and thus any liquidity risks faced by these UIT ETFs could lead to significant adverse market consequences. The commenter also expressed concern that excluding UIT ETFs from the scope of rule 22e-4 may prompt more ETF sponsors to structure ETFs as UITs rather than open-end funds to avoid being subject to the liquidity risk management program requirement. See Anonymous Comment Letter I. We recognize the risks of excluding UIT's from 22e-4, and thus are adopting the liquidity review requirement discussed in this section, as a tailored approach that fits the unique unmanaged structure of UITs, including ETFs that are structured as UITs. (ETMFs are not structured as UITs because, as they are structured today, they are actively managed and thus cannot operate as UITs.)

⁸⁹⁰ See *supra* footnote 885 and accompanying text.

UIT to conduct the initial liquidity assessment described above on or before the date of the initial deposit of securities into the UIT. The securities that the UIT is expected to hold should be examined so that they are consistent with the ability of a UIT to issue redeemable securities, much as an open-end fund will be required to evaluate whether its investment strategy and the securities it holds is appropriate for an open-end fund under the final liquidity risk management program.⁸⁹¹ Though UITs are not actively managed and do not have a board of directors, corporate officers, or an investment adviser to render advice during the life of the trust, making active liquidity risk management inapposite to the management structure of a UIT, we believe that this requirement of a tailored, one-time, initial liquidity risk management requirement for UITs is in line with the unmanaged structure of a UIT and its liquidity risk.⁸⁹²

We expect that this initial review requirement would in many respects be similar to the process for determining whether a fund's holding of illiquid investments is consistent with rule 22e-4's 15% limitation on illiquid investments, taking into account the unique structure and purpose of UITs. If a UIT were to hold or planned to hold more than 15% of its investments in illiquid investments at the time of initial deposit, such a level of illiquid investments is unlikely to be consistent with the nature of the redeemable securities it issues. Thus, if a UIT planned to hold significant amounts of illiquid securities (in excess of 15%), its principal underwriter or depositor would be unlikely to be able to make the determination that its investment's liquidity is consistent with its issuance of redeemable securities.

⁸⁹¹ As noted above, all UITs are subject to the requirements of section 22(e) and therefore must meet redemptions within seven days. *See also* section 4(2).

⁸⁹² With regard to UITs structured as ETFs in particular, we agree with commenters' concerns that UIT ETFs' liquidity risks may be comparable to those faced by other ETFs and that the relatively large size of certain UIT ETFs could lead to significant market consequences if these UIT ETFs were to encounter liquidity issues. However, because UIT ETFs are unmanaged and must fully replicate their underlying indices, we believe that a one-time determination regarding liquidity concerns at the commencement of the offering of a registered UIT is the appropriate manner to mitigate such concerns.

Due to the unmanaged structure of UITs and the fixed nature of their portfolios, it would be inconsistent with their structure and portfolios to require UITs to re-evaluate the securities they hold based on their liquidity characteristics and change their investments accordingly over time. Therefore, the requirement only applies at the time of the UIT's creation. Although this is a one-time determination at the time of the UIT's initial deposit, it should take into account the planned structure of the UIT's holdings. In particular, if the UIT tracks an index, the determination should consider the index design and whether the index design is likely to lead to the UIT holding an amount of illiquid assets that is inconsistent with the redeemable nature of the securities it issues.

As discussed above, because of the unmanaged nature of an UIT, we recognize that depending on its particular circumstances, after initial deposit, an UIT might potentially hold a higher level of illiquid investments due to redemptions or changes in the liquidity of the investments it holds. Nonetheless, we expect that the requirement for the depositor or principal underwriter to determine that the liquidity of the investments the UIT holds is consistent with the nature of the redeemable securities it issues at the time of initial deposit should help enhance UIT liquidity.

L. Disclosure and Reporting Requirements Regarding Liquidity Risk and Liquidity Risk Management

Receiving relevant information about the operations of a fund and its principal investment risks is important to investors in choosing the appropriate fund for their risk tolerances. Investors in open-end funds generally expect funds to pay redemption proceeds promptly following their redemption requests based, in part, on representations made by funds in their disclosure documents. Currently, funds are not expressly required to disclose how they manage the liquidity of their investments, and limited information is available regarding fund

liquidity and whether the liquidity of a fund's portfolio securities corresponds with its anticipated liquidity needs.

We are adopting, substantially as proposed with some modifications in response to comment, amendments to Form N-1A that will require a fund to further describe its procedures for redeeming the fund's shares including the number of days following receipt of shareholder redemption requests in which the fund typically expects to pay redemption proceeds to redeeming shareholders and the methods the fund typically uses to meet redemption requests, including whether those methods are used regularly or only in stressed market conditions.⁸⁹³ We also are adopting an amendment to General Instruction A of Form N-1A to conform the definition of "exchange-traded fund" to the definition of ETF adopted today in connection with rule 22e-4 and the adoption of Form N-CEN in the Investment Company Reporting Modernization Adopting Release.⁸⁹⁴

In addition, we are adopting new Form N-LIQUID to incorporate information that would have previously been reported on Form N-PORT under the proposal concerning a fund's investments in illiquid investments, but with some modifications in response to comments. Under this new reporting form, a fund is required to notify the Commission when more than 15% of the fund's net assets are, or become, illiquid investments that are assets as defined in rule 22e-4 and report information about the investments affected.⁸⁹⁵ A fund also is required to report on Form N-LIQUID if the fund's illiquid investments that are assets previously exceeded 15% of net assets and the fund determines that its illiquid investments that are assets have changed to be

⁸⁹³ See Items 11(c)(7) and (c)(8) of Form N-1A.

⁸⁹⁴ See *infra* footnote 906.

⁸⁹⁵ See Part A and Part B of Form N-LIQUID.

less than or equal to 15% of net assets.⁸⁹⁶ In addition, under the new form, a fund is required to notify the Commission if the fund's holdings in highly liquid investments that are assets fall below the fund's highly liquid investment minimum for more than 7 consecutive calendar days.⁸⁹⁷ Information reported on Form N-LIQUID will be non-public.

We are adopting, as proposed, the requirement that a fund report on Form N-CEN information regarding the use of lines of credit, interfund lending, and interfund borrowing.⁸⁹⁸ In addition, we are adopting a new requirement that a fund report on Form N-CEN whether the fund is an "In-Kind Exchange-Traded Fund" as defined in rule 22e-4.⁸⁹⁹

Many commenters expressed general support for enhanced disclosures regarding fund liquidity risk management practices.⁹⁰⁰ Some commenters noted that understanding the liquidity dynamics of an investment strategy employed by a fund would be beneficial to investors⁹⁰¹ and that enhanced information could assist the Commission in its role as the primary regulator of investment companies and help investors make more informed investing decisions by providing more transparency into fund investment practices.⁹⁰² Other commenters expressed concerns with

⁸⁹⁶ See Part C of Form N-LIQUID.

⁸⁹⁷ See Part D of Form N-LIQUID.

⁸⁹⁸ See Item C.20 of Form N-CEN. In the Proposing Release, we also proposed to add to Form N-CEN a requirement for funds to report whether the fund required that an authorized participant post collateral to the fund or any of its designated service providers in connection with the purchase or redemption of fund shares during the reporting period. See Proposing Release, *supra* footnote 9, at section III.G.3.a. We are adopting this requirement in the Investment Company Reporting Modernization Adopting Release. See Investment Company Reporting Modernization Adopting Release, *supra* footnote 120.

⁸⁹⁹ Item E.5 of Form N-CEN.

⁹⁰⁰ See, e.g., BlackRock Comment Letter; J.P. Morgan Comment Letter; LPL Comment Letter (supporting increased disclosure about liquidity); SIFMA Comment Letter I (expressing general support for the proposed amendments to Form N-1A and proposed Form N-CEN).

⁹⁰¹ See BlackRock Comment Letter.

⁹⁰² See Charles Schwab Comment Letter.

specific disclosure and reporting requirements outlined in the proposal, which are discussed in detail below.

1. *Amendments to Form N-1A*

Form N-1A is used by open-end funds, including money market funds and ETFs, to register under the Investment Company Act and to register offerings of their securities under the Securities Act. We are adopting, substantially as proposed, amendments to Form N-1A that will require a fund to further describe its procedures for redeeming the fund's shares including the number of days following receipt of shareholder redemption requests in which the fund typically expects to pay redemption proceeds to redeeming shareholders.⁹⁰³ A fund also will be required to describe the methods the fund typically expects to use to meet redemption requests in stressed and non-stressed market conditions.⁹⁰⁴ Funds will not be required, however, to file as exhibits to their registration statements credit agreements as we proposed. We note that these amendments will apply to all open-end funds, including money market funds and ETFs.⁹⁰⁵

In addition, we are adopting an amendment to General Instruction A of Form N-1A to conform the definition of "exchange-traded fund," which currently defines an ETF to mean, in part, a fund or class, "the shares of which are *traded* on a national securities exchange" to the definition of ETF adopted today in connection with rule 22e-4 and the adoption of Form N-PORT and Form N-CEN in the Investment Company Reporting Modernization Adopting Release, which both define an ETF, in part, to mean a fund or class, "the shares of which are

⁹⁰³ See Item 11(c)(7) of Form N-1A.

⁹⁰⁴ See Item 11(c)(8) of Form N-1A.

⁹⁰⁵ See *supra* footnote 4; see also *infra* section V.H.; and Proposing Release, *supra* footnote 9, at section V.G.

listed and traded on a national securities exchange.”⁹⁰⁶

Many commenters generally supported enhancing prospectus disclosure requirements,⁹⁰⁷ noting, for example, that enhanced disclosures will improve shareholder and market participant knowledge regarding fund redemption procedures and liquidity risk management.⁹⁰⁸ Several commenters expressed concerns with the proposed requirements to disclose the number of days or the methods in which a fund will pay redemption proceeds⁹⁰⁹ and include lines of credit agreements as exhibits to the fund registration statement.⁹¹⁰ We discuss the comments received in response to the proposal, as well as the amendments to Form N-1A and modifications to the proposal, in more detail below.

⁹⁰⁶ See General Instructions A of Form N-1A (emphasis added) and General Instruction E of Form N-CEN. See also Investment Company Reporting Modernization Adopting Release, *supra* footnote 120. For purposes of reporting on proposed Form N-CEN, we proposed to define (i) “exchange-traded fund” as an open-end management investment company (or series or class thereof) or UIT, the shares of which are listed and traded on a national securities exchange at market prices, and that has formed and operates under an exemptive order under the Investment Company Act granted by the Commission or in reliance on an exemptive rule under the Act adopted by the Commission and (ii) “exchange-traded managed fund” as an open-end management investment company (or series or class thereof) or UIT, the shares of which are listed and traded on a national securities exchange at NAV-based prices, and that has formed and operates under an exemptive order under the Investment Company Act granted by the Commission or in reliance on an exemptive rule under the Act adopted by the Commission. See Investment Company Reporting Modernization, Investment Company Act Release No. 31610 (May 20, 2015) [80 FR 33590 (June 12, 2015)] (“Investment Company Reporting Modernization Proposing Release”), at n.446 and accompanying text. In the Investment Company Reporting Modernization Proposing Release, we requested comment on whether the definitions of the type of funds listed in proposed Form N-CEN were appropriate and if any different definitions should be used. We did not receive any comments on the proposed definitions of ETF and ETMF in proposed Form N-CEN, and are adopting the definitions of ETF and ETMF, as proposed. See Investment Company Reporting Modernization Adopting Release, *supra* footnote 120.

⁹⁰⁷ See, e.g., CFA Comment Letter; LPL Comment Letter; Charles Schwab Comment Letter; Vanguard Comment Letter.

⁹⁰⁸ See J.P. Morgan Comment Letter.

⁹⁰⁹ See, e.g., Fidelity Comment Letter; Federated Comment Letter; NYC Bar Comment Letter; Vanguard Comment Letter.

⁹¹⁰ See, e.g., Fidelity Comment Letter; Invesco Comment Letter; T. Rowe Comment Letter; Voya Comment Letter.

a. Timing of the Redemption of Fund Shares

Form N-1A requires funds to describe their procedures for redeeming fund shares.⁹¹¹

Disclosure regarding other important redemption information, such as the timing of payment of redemption proceeds to fund shareholders, varies across funds as today there are no specific requirements for this disclosure under the form. Some funds disclose that they will redeem shares at a price based on the next calculation of net asset value after the order is placed but may delay payment for up to seven days (consistent with section 22(e) of the Act), and others provide no specific time periods for the payment. Some funds disclose differences in the timing of payment of redemption proceeds based on the distribution channel or payment method through which the fund shares are redeemed, while others do not.

We proposed amendments to Item 11 of Form N-1A that would require a fund to disclose the number of days in which the fund would pay redemption proceeds to redeeming shareholders.⁹¹² Under the proposal, if the number of days in which the fund would pay redemption proceeds differed by distribution channel, the fund also would be required to disclose the number of days for each distribution channel.⁹¹³ We also proposed amendments to Item 11 that would require a fund to disclose the methods that the fund uses to meet redemption

⁹¹¹ See Item 11(c) of Form N-1A, which requires a fund to describe procedures for redeeming fund shares, including (1) any restrictions on redemptions; (2) any redemption charges; (3) if the fund has reserved the right to redeem in kind; (4) any procedure that a shareholder can use to sell fund shares to the fund or its underwriter through a broker-dealer (noting any charges that may be imposed for such service); (5) the circumstances under which the fund may redeem shares automatically without action by the shareholder in accounts below a certain number or value of shares; (6) the circumstances under which the fund may delay honoring a request for redemption for a certain time after a shareholder's investment; and (7) any restrictions on, or costs associated with, transferring shares held in street name accounts.

⁹¹² See proposed Item 11(c)(7) of Form N-1A; see also Proposing Release, *supra* footnote 9, section III.G.1.

⁹¹³ *Id.*

requests.⁹¹⁴ Under the proposal, funds would have been required to disclose whether they use the methods regularly to meet redemptions or only in stressed market conditions.

Some commenters expressed general support for these new disclosure requirements under the proposal, stating that this information will improve shareholder and market participant knowledge regarding fund redemption procedures and liquidity risk management⁹¹⁵ and provide meaningful information about the general time taken to meet redemptions and the fund's approaches to liquidity risk management.⁹¹⁶

Some commenters also expressed concerns with the proposed requirement that funds disclose the number of days in which a fund will pay redemption proceeds for each distribution channel, stating that the disclosure could present undue complexity to the prospectus and may lead to shareholder confusion.⁹¹⁷ In addition, commenters argued that a fund does not always have a direct contractual relationship with the ultimate beneficial owners of its shares, as there are often multiple intermediaries between the mutual fund and its shareholder, and that a fund is not in the best position to disclose to its shareholders a precise timeframe in which an intermediary will transmit the proceeds of a shareholder's redemption.⁹¹⁸

We understand that in most cases, the distribution channel through which a shareholder transacts in fund shares is unlikely to have a material effect on the timing of the payment of redemption proceeds, but instead that the choice of *method* of payment of redemption proceeds

⁹¹⁴ See proposed Item 11(c)(8) of Form N-1A.

⁹¹⁵ See J.P. Morgan Comment Letter.

⁹¹⁶ See ICI Comment Letter I.

⁹¹⁷ See, e.g., Fidelity Comment Letter. See also e.g., Federated Comment Letter (stating that distribution channel level disclosure is unnecessary and could present undue complexity in prospectus if there are minor deviations).

⁹¹⁸ See Fidelity Comment Letter.

will have the most significant effect on when an investor receives proceeds. For example, we understand that the industry's central fund transaction processing utility (the NSCC), typically debits or credits the cash accounts of users of the utility (such as funds or their transfer agents on one side of the transaction, and intermediaries on behalf of beneficial owners, on the other side of the transaction) regarding net purchase or redemption activities in shares of a fund on T+1 (and to a lesser extent with respect to certain funds on T+3). Such intermediary users of the utility would in turn update their account records, including the beneficial owner's activity, on that date regardless of the type of book entry securities, account structure, or intermediary that the beneficial owner holds through. However, if the beneficial owner wishes to receive remittance of redemption proceeds via check (for example, instead of reinvesting them in another investment), it may take a certain number of days for the intermediary (or fund, as applicable) to process and mail the check to the customer. Accordingly, in a change from the proposal, the final form amendments do not require disclosure on timing of redemption proceeds based on distribution channel, but instead only require a fund to disclose typical expected payout times based on the payment method chosen by the investor (*e.g.*, check, wire, automated clearing house).⁹¹⁹

Thus, under the final amendments, if the number of days a fund expects to pay redemption proceeds differs by method of payment (*e.g.*, check, wire, automated clearing house), then the fund is required to disclose the typical number of days *or estimated range of days* that the fund expects it will take to pay out redemption proceeds for each method used.⁹²⁰ This requirement focuses on disclosing when the fund expects to *make the payment*, not when the

⁹¹⁹ See Item 11(c)(7) of Form N-1A.

⁹²⁰ See *id.* (emphasis added).

shareholder should expect to *receive* the proceeds, because receipt of proceeds is unlikely to be in the fund's control (for example, a fund cannot predict how long a mailed check will take to arrive). We believe narrowing the disclosure requirement to the effects of payment methods rather than the effects of all types of distribution channels addresses comments. We also believe that this modification will increase the quality of information provided to fund shareholders about the timing of their redemption proceeds and, at the same time, reduce the likelihood that disclosures regarding such timing will be overly granular and complex for investors and overly burdensome for registrants.⁹²¹

Other commenters expressed concerns about specific aspects of the proposed disclosure amendments. For example, some commenters stated that requiring funds to disclose the number of days in which the fund will pay redemption proceeds to redeeming shareholders would pressure funds to disclose shorter redemption payment periods, thereby limiting funds from exercising discretion in stressed markets.⁹²² Other commenters opposed a requirement to disclose the number of days or methods used to pay redemption proceeds,⁹²³ arguing, for example, that the disclosure requirement would inappropriately limit the flexibility of a fund to meet redemptions to timing and methods previously disclosed in its prospectus⁹²⁴ or would cause generic disclosures because of the variety of methods available to funds to meet redemptions.⁹²⁵ One commenter recommended that the Commission narrow the scope of the amendments to only

⁹²¹ See Proposing Release, *supra* footnote 9, section III.G.1.a.

⁹²² See FSR Comment Letter; NYC Bar Comment Letter.

⁹²³ See, e.g., Fidelity Comment Letter; Federated Comment Letter; Invesco Comment Letter; Vanguard Comment Letter.

⁹²⁴ See, e.g., Invesco Comment Letter; NYC Bar Comment Letter; Vanguard Comment Letter.

⁹²⁵ See Federated Comment Letter.

the “typical” number of days, methods, and funding sources used for meeting redemption requests.⁹²⁶

In consideration of these comments, and in a modification to the proposal, we are adopting amendments to Item 11 of Form N-1A to require a fund to disclose the number of days following receipt of shareholder redemption requests in which the fund *typically expects* to pay redemption proceeds to redeeming shareholders,⁹²⁷ rather than the number of days in which the fund will pay redemption proceeds as proposed. Funds may wish to consider also disclosing whether payment of redemption proceeds may take longer than the number of days that the fund typically expects and may take up to seven days as provided in the Investment Company Act.

We appreciate commenters’ concerns, and believe that this adjustment to the language in Form N-1A will give funds flexibility to provide disclosures about redemption procedures that do not inappropriately limit a fund’s ability to meet redemptions to the exact timing previously disclosed in its prospectus. We continue to believe that requiring this disclosure will inform the public about a critical aspect of a shareholder’s relationship with a fund – when the shareholder can expect redemption proceeds. Funds generally should disclose timing that reflects their actual operational procedures for meeting redemption rather than generic disclosures about fund redemptions, regardless of what other funds in the industry may disclose. We continue to believe that it is in the public interest to inform investors on the timing of when fund shareholders should expect redemption proceeds. We believe that this disclosure requirement will also enhance consistency in fund disclosures regarding the timing in which a fund will pay

⁹²⁶ See ICI Comment Letter I.

⁹²⁷ See Item 11(c)(7) of Form N-1A (emphasis added).

redemption proceeds, thereby improving the information provided to shareholders and the ability of investors to compare redemption procedures across funds.

b. Methods Used to Meet Shareholder Redemption Obligations

As noted above, some commenters opposed a requirement to disclose the methods used (and number of days) to pay redemption proceeds, arguing, for example, that the disclosure requirement would inappropriately limit the flexibility of a fund to meet redemptions to timing and methods previously disclosed in its prospectus or would cause generic disclosures because of the variety of methods available to funds to meet redemptions.⁹²⁸ Some commenters generally opposed requirements for funds to disclose the methods used to meet redemption requests, stating, for example, that it does not serve a purpose for investors to know precisely how the fund meets their redemption requests – so long as they receive their redemption proceeds within the period prescribed by regulation.⁹²⁹ As noted above, one commenter suggested that we narrow the scope of the disclosure requirement to only the “typical” methods funds use for meeting redemption requests.⁹³⁰

In light of these comments, in a modification to the proposal, we are adopting amendments to Item 11 of Form N-1A to require a fund to disclose the methods that the fund *typically expects* to use to meet redemption requests, and whether those methods are used regularly, or only in stressed market conditions.⁹³¹ We believe requiring that the description of the procedures for redeeming fund shares include a description of the methods a fund typically

⁹²⁸ See, e.g., Federated Comment Letter; Invesco Comment Letter; NYC Bar Comment Letter; Vanguard Comment Letter.

⁹²⁹ See Invesco Comment Letter.

⁹³⁰ See ICI Comment Letter I; see also footnote 926 and accompanying text.

⁹³¹ See Item 11(c)(8) of Form N-1A (emphasis added).

expects to use to meet redemption requests will improve disclosure about another critical aspect of a shareholder's relationship with a fund – how a shareholder can expect to receive redemption proceeds. We appreciate the concerns expressed by commenters and believe that the modified language in the form provides some needed flexibility for funds while at the same time providing investors with improved information concerning redemption procedures. Furthermore, this disclosure requirement will increase consistency in fund disclosure documents regarding fund redemption practices and improve the comparability of such information across funds. Absent this amendment, disclosures concerning the methods funds use to pay redemption proceeds will continue to vary across funds.

We believe that requiring specific disclosure on the methods a fund uses to pay redemption proceeds could improve investor knowledge on how a fund manages liquidity and its redemption obligations to shareholders. At the foundation of the prospectus disclosure framework is the provision to all investors of user-friendly information that is key to an investment decision.⁹³² Additionally, given the increase in open-end funds pursuing alternative and fixed income strategies with varied liquidity risks,⁹³³ the sources of liquidity and methods used to meet shareholder redemptions are key information that investors need.

Methods to meet redemption obligations may include, for example, sales of portfolio assets, holdings of cash or cash equivalents, the use of lines of credit and/or interfund lending, and in-kind redemptions.⁹³⁴ Funds may also use redemption fees to help mitigate dilution and address transaction costs associated with shareholder activity. We also believe that requiring this

⁹³² See Enhanced Disclosure and New Prospectus Delivery Option for Registered Open-End Management Investment Companies, Investment Company Act Release No. 28584 (Jan. 13, 2009) [74 FR 4546 (Jan. 26, 2009)] (“N-1A Release”), at section I.

⁹³³ See *supra* section II.C.1.

⁹³⁴ See *supra* footnote 686 and accompanying text.

disclosure could encourage funds to consider their operations and ensure that the methods they may use to meet shareholder redemption obligations in normal and reasonably foreseeable stressed markets are viable.

As noted above, Form N-1A requires funds to disclose whether they reserve the right to redeem their shares in kind instead of in cash and to describe the procedures for such redemptions.⁹³⁵ As proposed, we are amending Form N-1A to incorporate this disclosure requirement into Item 11(c)(8) discussed above. We understand that the use of in-kind redemptions (outside of the ETF context) historically has been rare and that many funds reserve the right to redeem in kind only as a tool to manage liquidity risk under emergency circumstances or to manage the redemption activity of a fund's large institutional investors.⁹³⁶ We also are aware that there are often logistical issues associated with redemptions in kind and that these issues can limit the availability of in-kind redemptions as a practical matter. A fund should consider whether adding relevant detail to its disclosure regarding in-kind redemptions, including, for example, whether redemptions in kind will be pro-rata slices of the fund's portfolio or individual securities or a representative basket of securities, or revising its disclosure if the fund would be practically limited in its ability to redeem its shares in kind, would provide more accurate information to investors.

One commenter expressed concerns that the proposed additional disclosure requirements in Form N-1A runs against the Commission's goal of clear and concise, user-friendly

⁹³⁵ See Item 11(c)(3) of Form N-1A.

⁹³⁶ See *supra* section III.J. We note that funds also have the ability to redeem in kind, subject to the limitations under rule 18f-1 under the Act for funds that have made an election under the rule. An 18f-1 election commits a fund to pay in cash all requests for redemption by any shareholder of record, limited in amount with respect to each shareholder during any 90-day period to the lesser of \$250,000 or 1% of the fund's net asset value at the beginning of the period.

disclosures.⁹³⁷ We believe that the amendments adopted today in this Release, including specific modifications in response to commenters, respond appropriately to this commenter's concern and are designed to provide disclosures to investors with key information in a clear, concise, and understandable manner. We believe that investors in an open-end fund should have information on how the fund expects to meet redemptions and in what time period they expect to pay redemption proceeds.

c. Credit Agreements Exhibit

We also proposed to amend Item 28 of Form N-1A to require a fund to file as an exhibit to its registration statement any agreements related to lines of credit for the benefit of the fund to increase Commission, investor, and market participant knowledge concerning the arrangements funds have made in order to strengthen their ability to meet shareholder redemption requests and manage liquidity risk and the terms of those arrangements.⁹³⁸ In light of concerns expressed by commenters, we are not adopting amendments to Form N-1A to require the filing of credit agreements as exhibits to a fund's registration agreement.

Many commenters objected to the credit agreements exhibit requirement,⁹³⁹ with some arguing, for example, that credit agreements are often extremely lengthy documents that are not user-friendly,⁹⁴⁰ the disclosure of which would be unnecessary in light of the lines of credit reporting requirements in Form N-CEN as well as information concerning lines of credit

⁹³⁷ See Federated Comment Letter.

⁹³⁸ See Proposing Release, *supra* footnote 9, at section III.G.1 (where we also proposed to include an instruction related to credit agreements noting that the specific fees paid in connection with the credit agreements need not be disclosed in the exhibit filed with the Commission to preserve the confidentiality of this information).

⁹³⁹ See, e.g., Fidelity Comment Letter; CRMC Comment Letter; Oppenheimer Comment Letter; Voya Comment Letter.

⁹⁴⁰ See CRMC Comment Letter; T. Rowe Comment Letter.

disclosed in a fund's statement of additional information and financial statements.⁹⁴¹ Other commenters expressed concern that public disclosure of line of credit agreements in a fund's registration statement could ultimately harm fund shareholders, noting that public disclosure could (1) disrupt and weaken a fund's ability to negotiate credit terms;⁹⁴² (2) make public proprietary and competitive information (*e.g.*, certain representations and warranties) that lenders and funds may wish to keep confidential and are not easily redacted;⁹⁴³ and (3) ultimately discourage lending banks from granting lending terms to funds out of a concern that terms granted would become standard in other lending agreements.⁹⁴⁴

Rather than include line of credit agreements as exhibits, other commenters suggested including a narrative discussion of lines of credit information, similar to the data required to be disclosed in Form N-CEN, in a fund's statement of additional information.⁹⁴⁵ Some commenters did not oppose requiring the filing of line of credit agreements as an exhibit to a fund's registration statement if, in addition to redacting fees as proposed, certain other portions of the agreement were permitted to be redacted.⁹⁴⁶

We find the concerns expressed by commenters persuasive and have determined to not adopt this amendment to Form N-1A. We acknowledge that credit agreements can be lengthy, complex documents that may be of limited value to retail investors and that the information provided in the proposed exhibits could be, in part, duplicative of information provided in a

⁹⁴¹ See, *e.g.*, Oppenheimer Comment Letter; T. Rowe Comment Letter; Voya Comment Letter.

⁹⁴² See Oppenheimer Comment Letter; Fidelity Comment Letter.

⁹⁴³ See CRMC Comment Letter; Invesco Comment Letter; Oppenheimer Comment Letter; Voya Comment Letter.

⁹⁴⁴ See Fidelity Comment Letter.

⁹⁴⁵ See ICI Comment Letter I; CRMC Comment Letter.

⁹⁴⁶ See FSR Comment Letter (requesting redaction of the identity of the counterparty); Federated Comment Letter (requesting redaction of the rate payable by the fund on any drawdowns).

fund's statement of additional information and financial statements. We believe that requiring funds to report the use of lines of credit in response to reporting requirements in Form N-CEN is an appropriate means to increase Commission, investor, and market participant knowledge concerning the arrangements funds have made in order to strengthen their ability to meet shareholder redemption requests and manage liquidity risk and the terms of those arrangements.

d. Additional Disclosure Requirements

Some commenters recommended that the Commission require additional disclosures in a fund's registration statement about a fund's specific liquidity risk management policies and procedures⁹⁴⁷ and the market impact costs associated with redemption activity.⁹⁴⁸ For example, one commenter recommended requiring a fund to disclose a narrative of its liquidity risk management program in its statement of additional information as well as a statement in the fund prospectus about the liquidity risk appetite of each fund.⁹⁴⁹ Another commenter expressed support for the Commission requiring funds to include a discussion of their liquidity risk management policies and procedures, similar to what is currently required on Form N-1A for policies and procedures regarding proxy voting (Items 17 and 27) and valuation procedures (Item 23), among others.⁹⁵⁰ In addition, one commenter recommended that we consider requiring a fund to also disclose the level of "position concentration" that is appropriate for the fund in terms of portfolio liquidity in light of the fund's investment strategy and investor profile.⁹⁵¹ While another commenter recommended that, at a minimum, funds be required to provide disclosures

⁹⁴⁷ See, e.g., Invesco Comment Letter; J.P. Morgan Comment Letter.

⁹⁴⁸ See BlackRock Comment Letter.

⁹⁴⁹ See Invesco Comment Letter.

⁹⁵⁰ See J.P. Morgan Comment Letter.

⁹⁵¹ See BlackRock Comment Letter.

noting the possibility of suspending redemptions and how the fund will handle redemption requests in that situation.⁹⁵²

We support commenters' goals of providing useful information about a fund's liquidity risk management practices to investors but also remain committed to encouraging statutory prospectuses that are simple, clear, and useful to investors⁹⁵³ and registration statements that provide useful information, rather than boilerplate legal representations. In the interest of balancing these two goals, we are adopting the proposed amendments to Form N-1A substantially as proposed without including these specific additional disclosure requirements suggested by commenters in the text of the form. We note, however, that nothing in Form N-1A prohibits disclosures about the features of a fund's liquidity risk management program where relevant to understanding disclosures under existing reporting requirements.

2. *New Form N-LIQUID*

We are also adopting a new requirement that open-end investment companies, including In-Kind ETFs to the extent applicable⁹⁵⁴ but not including money market funds (*i.e.*, registrants), file on a non-public basis a current report to the Commission on new Form N-LIQUID when certain significant events related to a fund's liquidity occur.⁹⁵⁵ This requirement will be implemented through our adoption of new rule 30b1-10, which requires funds to file a report on new Form N-LIQUID in certain circumstances. The content of this report is similar to the

⁹⁵² See CFA Comment Letter.

⁹⁵³ See N-1A Release, *supra* footnote 932.

⁹⁵⁴ As discussed below, some of the events required to be reported on Form N-LIQUID are in connection with the breach of a fund's highly liquid investment minimum. See Part D of Form N-LIQUID. Because In-Kind ETFs are not subject to the highly liquid investment minimum requirement under rule 22e-4(b)(1)(iii), they would not be subject to this Part D reporting requirement on Form N-LIQUID.

⁹⁵⁵ See rule 30b1-10.

information that we proposed to be reported on Form N-PORT under the proposal concerning a fund's investments in illiquid assets, but with some modifications in response to comments. A report on Form N-LIQUID is required to be filed, as applicable, within one business day of the occurrence of one or more of the events specified in the form.⁹⁵⁶ Form N-LIQUID will be non-public. For the same reasons discussed previously regarding our determination to keep information regarding a fund's highly liquid investment minimum and specific position level disclosure of illiquid investments non-public, we find that it is neither necessary nor appropriate in the public interest or for the protection of investors to make the information filed on Form N-LIQUID publicly available.⁹⁵⁷

First, a registrant is required to file Form N-LIQUID within one business day when more than 15% of its net assets are, or become, illiquid investments that are assets as defined in rule 22e-4.⁹⁵⁸ If this occurs, the registrant will be required to report on Form N-LIQUID general information about the registrant as well as (1) the date(s) of the event, (2) the current percentage of the registrant's net assets that are illiquid investments that are assets, and (3) identification information about the illiquid investments.⁹⁵⁹

Second, if a registrant whose illiquid investments that are assets previously exceeded 15% of net assets determines that its holdings in illiquid investments that are assets have changed

⁹⁵⁶ Form N-LIQUID will also require a fund to report the following general information: (1) the date of the report; (2) the registrant's central index key ("CIK") number; (3) the EDGAR series identifier; (4) the Securities Act file number; and (v) the name, email address, and telephone number of the person authorized to receive information and respond to questions about the filing. *See* Part A of Form N-LIQUID.

⁹⁵⁷ *See supra* footnote 615 and accompanying text and footnote 743 and accompanying text. Section 45(a) of the Investment Company Act requires information in reports filed with the Commission pursuant to the Investment Company Act to be made available to the public, unless we find that public disclosure is neither necessary nor appropriate in the public interest or for the protection of investors.

⁹⁵⁸ *See* Part A and Part B of Form N-LIQUID.

⁹⁵⁹ *See* Items A.1 - A.5 and Items B.1 - B.3 of Form N-LIQUID.

to be less than or equal to 15% of the registrant's net assets, then the registrant also is required to report within one business day (1) the date(s) on which its illiquid investments that are assets fell to or below 15% of net assets and (2) the current percentage of the registrant's net assets that are illiquid investments that are assets.⁹⁶⁰

Lastly, a registrant also is required to notify the Commission on Form N-LIQUID within one business day if its holdings in highly liquid investments that are assets fall to or below the registrant's highly liquid investment minimum for more than 7 consecutive calendar days.⁹⁶¹ If this occurs, a fund is required to report the date(s) on which the fund's holdings in liquid investments that are assets fell below the fund's highly liquid investment minimum.⁹⁶²

As discussed above, we are modifying the 15% standard asset-reporting requirement originally proposed by incorporating this information into the fourth "illiquid investment" classification category reported on Form N-PORT.⁹⁶³ Under the proposal, Form N-PORT would have required a fund to report, for each portfolio asset, whether the asset is a 15% standard asset in order to allow our staff and other interested parties to track the extent that funds are holding 15% standard assets and to discern the nature of those holdings and assist these groups in tracking the fund's exposure to liquidity risk.⁹⁶⁴

Some commenters recommended that the Commission require more detailed reporting data from funds that hold a larger percentage of securities that are less liquid or illiquid and that funds should notify the Commission more promptly than the Form N-PORT filing deadline when

⁹⁶⁰ See Item C.1 and Item C.2 of Form N-LIQUID.

⁹⁶¹ See Part D of Form N-LIQUID.

⁹⁶² See Item D.1 of Form N-LIQUID.

⁹⁶³ See Item C.7 Form N-PORT; *see also supra* section III.C.6.

⁹⁶⁴ See Proposing Release, *supra* footnote 9, at section II.G.2.b.

a fund's illiquid assets exceed 15% of net assets, or if the fund otherwise encounters indications of increased liquidity risk.⁹⁶⁵ Other commenters expressed support for the addition of an early warning notification provision, under which funds would be required to notify the Commission when illiquid assets held at the end of a business day exceed 15% of net assets and continue to exceed 15% of net assets three business days after the threshold was first exceeded.⁹⁶⁶ Another commenter expressed the belief that the sheer scale of Americans' reliance on open-end funds as an investment instrument and the potential for systemic contagion that arises when funds confront liquidity challenges must inform any consideration of the Commission's proposal.⁹⁶⁷ In the commenter's view, the reporting requirements under the proposal with underlying factor-based analysis was largely discretionary and lacked mandatory requirements, and thereby failed to adequately account for the potential systemic threat to the nation's financial stability posed by liquidity risk.⁹⁶⁸

We appreciate the concerns and suggestions raised by commenters and agree that the Commission should be notified promptly when a fund encounters indications of increased liquidity risk and believe that new Form N-LIQUID addresses some concerns expressed by commenters that certain liquidity events that could affect the liquidity of a particular fund and/or indicate potential liquidity risks across the fund industry require particular attention by Commission staff. Pursuant to Part B of Form N-LIQUID, registrants will now be required to

⁹⁶⁵ See, e.g., Charles Schwab Comment Letter (noting that this proposed approach could be similar to the Commission's 2015 Derivatives Proposing Release, which has proposed to enhance requirements for funds whose aggregate exposure to derivatives exceeds 50% of its net assets); see also, e.g., SIFMA Comment Letter III.

⁹⁶⁶ See, e.g., SIFMA Comment Letter III (noting that this early warning notification could respond to concerns raised by the Third Avenue Fund liquidation); see also Third Avenue Temporary Order, *supra* footnote 12.

⁹⁶⁷ See Better Markets Comment Letter.

⁹⁶⁸ See *id.*

report to the Commission within one business day of when their percentage of illiquid investments that are assets exceeds (and subsequently falls to or below) 15% of their net assets.⁹⁶⁹ Providing this information more promptly than monthly reporting on Form N-PORT, as proposed, will be the “early warning notification” that some commenters recommended⁹⁷⁰ and will inform the Commission of potential liquidity stress events at the earliest possible juncture. Similarly, requiring a registrant to report when its holdings in highly liquid investments that are assets fall below the registrant’s highly liquid investment minimum will add to this early warning system and ensure the Commission is made aware of such breaches promptly, rather than later in reports filed on Form N-PORT.⁹⁷¹ We believe that the information reported on Form N-LIQUID will assist Commission staff in its monitoring efforts of liquidity, including monitoring of not only the reporting fund but also funds that may have comparable characteristics to the reporting fund and could be similarly affected by market events.

Form N-LIQUID also includes general filing and reporting instructions, as well as definitions of specific terms referenced in the form.⁹⁷² These instructions and definitions are intended to provide clarity to funds and to assist them in filing reports on Form N-LIQUID.

3. *Amendments to Form N-CEN*

We proposed several reporting items under Part C of Form N-CEN to allow the Commission and other users to track certain liquidity risk management practices that we expect funds to use on a less frequent basis than the day-to-day portfolio construction techniques

⁹⁶⁹ See Part B and Part C of Form N-LIQUID; *see also* General Instruction A of Form N-LIQUID.

⁹⁷⁰ See SIFMA Comment Letter III.

⁹⁷¹ See Part D of Form N-LIQUID.

⁹⁷² See General Instructions A (Rule as to Use of Form N-LIQUID), B (Application of General Rules and Regulations), C (Information to Be Included in Report Filed on Form N-LIQUID), D (Filing of Form N-LIQUID), E (Paperwork Reduction Act Information), and F (Definitions) of Form N-LIQUID.

captured by Form N-PORT.⁹⁷³ We are adopting these reporting requirements substantially as proposed. Where we have received comments on specific reporting requirements, we discuss them in more detail below.

a. Lines of Credit, Interfund Lending, and Interfund Borrowing

We are adopting, largely as proposed, but with a modification in response to comment, the requirement in Form N-CEN that a management company report information regarding the use of lines of credit, interfund lending, and interfund borrowing.⁹⁷⁴ Several commenters expressed general support for these reporting requirements on Form N-CEN.⁹⁷⁵ In a modification to the proposal, if a fund reports that it has access to a line of credit, for each line of credit the fund will be required to report whether the line of credit is a committed or *uncommitted* line of credit.⁹⁷⁶ The fund will be required to report information concerning the size of the line of credit in U.S. dollars, the name of the institution(s) with which the fund has the line of credit, and whether the line of credit is for that fund alone or is shared among multiple funds.⁹⁷⁷ If the line of credit is shared among multiple funds, the fund is required to disclose the names and SEC File numbers of the other funds (including any series) that may use the line of credit.⁹⁷⁸ If the fund responds affirmatively to having available a line of credit, the fund is required to disclose

⁹⁷³ See Proposing Release, *supra* footnote 9, at section III.G.3.

⁹⁷⁴ See Item C.20 of Form N-CEN. We have modified the numbering convention for items within Form N-CEN from the proposal to be consistent with Form N-CEN as adopted in the Investment Company Reporting Modernization Adopting Release and to clarify that responses regarding lines of credit, interfund lending, and interfund borrowing should apply to each line of credit or loan, as applicable.

⁹⁷⁵ See, e.g., CFA Comment Letter; Federated Comment Letter; Vanguard Comment Letter.

⁹⁷⁶ See Item C.20.a.i of Form N-CEN (emphasis added).

⁹⁷⁷ See Item C.20.a.ii-iv. of Form N-CEN.

⁹⁷⁸ See Item C.20.a.iv.1 of Form N-CEN. Under Form N-CEN, “SEC File number” means the number assigned to an entity by the Commission when that entity registered with the Commission in the capacity in which it is named in Form N-CEN. See General Instruction E to Form N-CEN.

whether it drew on the line of credit during the reporting period.⁹⁷⁹ If the fund drew on that line of credit during the reporting period, the fund is required to disclose the average dollar amount outstanding when the line of credit was in use and the number of days that line of credit was in use.⁹⁸⁰

The Proposing Release included a request for comment on whether funds should be required to report information on uncommitted lines of credit on Form N-CEN.⁹⁸¹ In general, a committed line of credit represents a bank's obligation, in exchange for a fee, to make a loan to a fund subject to specified conditions. For uncommitted or standby lines of credit, however, a bank indicates a willingness, but no obligation, to lend to a fund.⁹⁸² As one commenter noted, funds may have certain tools like lines of credit from banks for temporary liquidity management purposes "when more typical means (*e.g.*, use of new or existing cash or sales of portfolio holdings) are unavailable or otherwise sub-optimal."⁹⁸³ One commenter suggested that funds report the availability of uncommitted lines of credit in addition to committed lines of credit in Form N-CEN.⁹⁸⁴

In consideration of these comments, we are including in Form N-CEN a requirement for funds to report the availability and use of committed and uncommitted lines of credit.⁹⁸⁵ We believe that this information will allow our staff and other potential users to assess what sources of external liquidity are available to funds and to what extent funds rely on dedicated external

⁹⁷⁹ See Item C.20.a.v of Form N-CEN.

⁹⁸⁰ See Item C.20.a.vi. and vii of Form N-CEN.

⁹⁸¹ See Proposing Release, *supra* footnote 9, at section III.G.3.c.

⁹⁸² See Fortune, *supra* footnote 781 at 47.

⁹⁸³ ICI Comment Letter I.

⁹⁸⁴ See Federated Comment Letter.

⁹⁸⁵ See Item C.20.a.(i) of Form N-CEN.

sources of liquidity, rather than relying on the liquidity of fund portfolio investments alone, for liquidity risk management. In addition, we believe that if funds make substantial use of uncommitted lines of credit, the reporting of that reliance could flag potential vulnerabilities in a fund or the fund industry, particularly in the event of a market crisis when uncommitted lines of credit might become unavailable. Furthermore, having funds report information on lines of credit will also allow monitoring of whether lines of credit are concentrated in particular financial institutions.

We are adopting, as proposed, the requirement that a fund report whether it engaged in interfund lending or interfund borrowing during the reporting period, and, if so, the average amount of the interfund loan when the loan was outstanding and the number of days that the interfund loan was outstanding.⁹⁸⁶ This information will provide some transparency regarding the extent to which funds use interfund lending or interfund borrowing. We understand that one reason that funds have sought exemptive relief to engage in interfund lending and borrowing is to meet redemption obligations if necessary.⁹⁸⁷

b. Additional Information Concerning ETFs

In a modification to the proposal, we are requiring that each ETF that complies with rule 22e-4 as an “In-Kind ETF” under the rule, identify itself accordingly in reports on Form N-CEN.⁹⁸⁸ As discussed above, we are adopting certain tailored liquidity risk management program requirements for ETFs, and certain ETFs that qualify as In-Kind ETFs will not be required to classify their portfolio investments or comply with the highly liquid investment

⁹⁸⁶ See Items C.20.b and c of Form N-CEN.

⁹⁸⁷ For example, we understand that funds may engage in interfund lending and borrowing to pay out redemption proceeds same-day or T+1 while the fund awaits proceeds from sales of non-traded securities.

⁹⁸⁸ See Item E.5 of Form N-CEN; *see also supra* section III.J regarding the definition and treatment of “In-Kind ETFs” under rule 22e-4.

minimum requirement of rule 22e-4.⁹⁸⁹ We believe that the In-Kind ETF information reported on Form N-CEN will be helpful in understanding the volume of ETFs that identify as In-Kind ETFs and thus are not required to classify their portfolio investments or comply with the highly liquid investment minimum requirement of rule 22e-4.⁹⁹⁰

4. *Safe Harbors*

Some commenters suggested that the Commission should include a safe harbor and/or protection from liability as part of the final rule for proposed liquidity-related disclosures.⁹⁹¹ One commenter recommended that the Commission provide a safe harbor for “forward-looking statements” given the speculative nature of the proposed disclosures.⁹⁹² Another commenter recommended that the Commission implement measures to shield from liability funds that in good faith make forward-looking assessments of liquidity at either the asset or portfolio level that subsequently turn out to materially differ from actual liquidity.⁹⁹³ One commenter further suggested that the Commission should include a provision stating that funds and their affiliates will not face liability for errors in classification or otherwise in implementing their liquidity risk management programs, and related reports and (if applicable) disclosures, unless (i) the error is material and (ii) the fund or affiliate acted knowingly or recklessly. Commenters argued that any safe harbor provision should also make clear that funds and managers would not face liability for violation of rule 22e-4 based on second-guessing, either by the Commission or by fund shareholders, of the design of the liquidity risk management program.⁹⁹⁴ One commenter expressed concern that, even if a safe harbor provision were established that protected funds and

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Id.

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ETFs that redeem in cash, or that do not qualify otherwise as “In-Kind ETFs” (as defined in rule 22e-4(a)(9)) will be subject to the full set of liquidity risk management program elements, including the classification and highly liquid investment minimum requirements. *See* rule 22e-4(b)(1)(i)-(iii).

directors from Commission enforcement actions, funds and directors could still be subject to private litigation.⁹⁹⁵ We decline to provide such a safe harbor.

M. Effective and Compliance Dates

We are adopting the following effective and compliance dates, as set forth below.

1. Liquidity Risk Management Program

The compliance date for our liquidity risk management program requirement is December 1, 2018 for larger entities, and June 1, 2019 for smaller entities. Thus all registered open-end management investment companies, including open-end ETFs, that are not smaller entities, will be required to adopt and implement a written liquidity risk management program, approved by a fund's board of directors on December 1, 2018, while smaller entities will be required to do so six months later, on June 1, 2019.⁹⁹⁶

In the Proposing Release, the Commission stated that it expected to provide a tiered set of compliance dates based on asset size.⁹⁹⁷ The Commission expected that 18 months after the

⁹⁹¹ See, e.g., ICI Comment Letter I; LSTA Comment Letter; SIFMA Comment Letter II; T. Rowe Comment Letter.

⁹⁹² See FSR Comment Letter.

⁹⁹³ See ICI Comment Letter I (noting that the Commission has precedent for using its authority to shield from potential liability certain forward-looking information that registrants are required to provide (*see, e.g.*, rule 175 under the Securities Act; rule 3b-6 under the Exchange Act; Item 303(c) of Reg. S-K; and Disclosure in Management's Discussion and Analysis about Off-Balance Sheet Arrangements and Aggregate Contractual Obligations, Securities Act Release No. 33-8182 (Feb. 5, 2003) (regarding MD&A disclosures)).

⁹⁹⁴ See SIFMA Comment Letter II.

⁹⁹⁵ See Federated Comment Letter.

⁹⁹⁶ The compliance date in the section applies to rule 22e-4, rule 30b1-10, and Form N-LIQUID.

⁹⁹⁷ See Proposing Release, *supra* footnote 9, at section III.H. Specifically, for larger entities – namely, funds that together with other investment companies in the same “group of related investment companies” have net assets of \$1 billion or more as of the end of the most recent fiscal year – the Commission proposed a compliance date of 18 months after the effective date to comply with the Proposed Rule. For smaller entities (*i.e.*, funds that together with other investment companies in the same “group of related investment companies” have net assets of less than \$1 billion as of the end of the most recent fiscal year), the proposal provided for an extra 12 months (or 30 months after the effective date) to comply with proposed rule 22e-4.

effective date would provide an adequate period of time for larger entities to prepare internal processes, policies, and procedures and implement liquidity risk management programs that would meet the requirements of the rule.⁹⁹⁸ We believed that smaller entities would benefit from having an additional 12 months to establish and implement a written liquidity risk management program.⁹⁹⁹

Most of the commenters who discussed the proposed liquidity risk management program compliance date(s) opposed tiered compliance and requested at least 30 months to comply. Some argued larger funds would need at least 30 months to comply because of their size: more funds and a greater number and variety of investments to classify would require more time.¹⁰⁰⁰ Others cited operational limitations: a need of adequate time for 1) all funds to properly prepare processes, policies and procedures; 2) managers to adjust operations and develop reporting capabilities; and 3) mutual fund boards to review, approve, and implement the program.¹⁰⁰¹ The only commenter that supported tiered compliance requested lengthier compliance dates for both larger and smaller entities.¹⁰⁰²

After evaluating the comments received, we believe that larger entities would benefit from an additional period of time to come into compliance with the rules over the 18 months that was proposed. Therefore, we are providing an additional 6 months for these entities, for a total of 24 months (*i.e.*, December 1, 2018) to come into compliance. We continue to believe that smaller entities may face additional or different challenges in coming into compliance with the

⁹⁹⁸ *Id.*

⁹⁹⁹ *Id.*

¹⁰⁰⁰ *See, e.g.*, Fidelity Comment Letter; FSR Comment Letter; ICI Comment Letter I; Invesco Comment Letter.

¹⁰⁰¹ *See, e.g.*, BlackRock Comment Letter; CRMC Comment Letter; T. Rowe Comment Letter; Vanguard Comment Letter.

¹⁰⁰² *See* Dechert Comment Letter.

rules quickly, and are therefore providing an extended compliance period of a total of 30 months (*i.e.*, June 1, 2019) for such smaller entities.

2. *Amendments to Form N-1A, Form N-PORT, and Form N-CEN*

In the Proposing Release, the Commission expected to require all initial registration statements on Form N-1A, and all post-effective amendments that are annual updates to effective registration statements on Form N-1A, filed six months or more after the effective date, to comply with the proposed amendments to Form N-1A.¹⁰⁰³ Few commenters discussed the Form N-1A amendments. One commenter agreed that 6 months was sufficient to comply with the amendments;¹⁰⁰⁴ another commenter requested 30 months to comply.¹⁰⁰⁵ Because we do not expect that funds will require significant amounts of time to prepare these additional disclosures,¹⁰⁰⁶ we are adopting a compliance date for our amendments to Form N-1A of June 1, 2017. This will provide a six month compliance period for these amendments, as proposed.

Similar to the tiered compliance dates for the liquidity classification requirements (discussed above), we are providing a tiered set of compliance dates based on asset size for the additions to Form N-PORT and Form N-CEN.¹⁰⁰⁷ In the Proposing Release, for larger entities, we expected that 18 months would provide an adequate period of time for funds, intermediaries, and other service providers to conduct the requisite operational changes to their systems and to establish internal processes to prepare, validate, and file reports containing the additional information requested by the proposed amendments to Form N-PORT. Further, we believed that

¹⁰⁰³ See Proposing Release, *supra* footnote 9, at section III.H.

¹⁰⁰⁴ See ICI Comment Letter I.

¹⁰⁰⁵ See Vanguard Comment Letter.

¹⁰⁰⁶ See Proposing Release, *supra* footnote 9, at section III.H.

¹⁰⁰⁷ *Id.*

smaller entities would benefit from extra time to comply and from the lessons learned by larger investment companies during the adoption period for Form N-PORT. For Form N-CEN, we proposed a compliance date of 18 months after the effective date to comply with the new reporting requirements.¹⁰⁰⁸ We expected that 18 months would provide an adequate period of time for funds, intermediaries, and other service providers to conduct the requisite operational changes to their systems and to establish internal processes to prepare, validate, and file reports containing the additional information requested by the proposed amendments to Form N-CEN. Multiple commenters, restating their concerns about operational limitations, requested 30 months for all entities to comply with the Form N-PORT and Form N-CEN amendments.¹⁰⁰⁹

As discussed above, we are persuaded that larger entities would benefit from extra time to comply and are therefore providing a compliance date of December 1, 2018 for larger entities to come into compliance with the additional liquidity-related reporting requirements of Form N-PORT and Form N-CEN. This will result in larger funds filing their first reports with additional liquidity-related information on Form N-PORT, reflecting data as of December 31, no later than January 31. For smaller entities, the compliance date will be June 1, 2019. This will provide smaller entities an additional six months to comply with the new liquidity-related reporting requirements.

IV. ECONOMIC ANALYSIS

A. Introduction and Primary Goals of Regulation

1. Introduction

As discussed above, the Commission is adopting regulatory changes to require a liquidity

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Id.

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See Cohen & Steers Comment Letter; Fidelity Comment Letter; ICI Comment Letter I; Vanguard Comment Letter.

risk management program, and to require new disclosures regarding liquidity risk and liquidity risk management (collectively, the “final liquidity regulations”). Because of the significant diversity in liquidity risk management practices that we have observed in the fund industry, there exists the need for enhanced comprehensive baseline regulations instead of only guidance for fund liquidity risk management. In summary, and as discussed in greater detail in section III above, the final liquidity regulations include the following:

- o New rule 22e-4 will require that each fund establish a written liquidity risk management program. A fund’s liquidity risk management program broadly requires a fund to assess, manage and review the fund’s liquidity risk; to classify the liquidity of each of the fund’s portfolio investments; to determine a highly liquid investment minimum (except for funds that hold primarily highly liquid investments); and to limit illiquid investments to 15% of fund investments. The final rule also provides for a tailored program for all ETFs, but offers some exemptions for In-Kind ETFs. Finally, the rule requires for board oversight of the liquidity risk management program.
- o Amendments to Form N-1A and additional elements of new Form N-PORT and Form N-CEN will require enhanced fund disclosure and reporting regarding position liquidity and shareholder redemption practices. New Form N-LIQUID will require more prompt, non-public notification to the Commission when a fund’s holdings of assets that are illiquid investments exceed 15% of net assets, or when a fund’s holdings of highly liquid investments that are assets fall below the fund’s highly liquid investment minimum for more than 7 consecutive calendar days.

The Commission is sensitive to the economic effects of the final liquidity regulations, including the benefits and costs as well as the effects on efficiency, competition, and capital

formation. The economic effects are discussed below in the context of the primary goals of the final liquidity regulations.

2. *Primary Goals*

The primary goals of the final liquidity regulations are to promote investor protection by reducing the risk that funds will be unable to meet their redemption obligations, elevate the overall quality of liquidity risk management across the fund industry, increase transparency of funds' liquidity risks and risk management practices, and mitigate potential dilution of non-transacting shareholders' interests. Funds are not currently subject to requirements under the federal securities laws or Commission rules that specifically require them to maintain a minimum level of portfolio liquidity (with the exception of money market funds), and follow Commission guidelines (not rules) that generally limit their investment in illiquid assets.¹⁰¹⁰ Additionally, a fund today is only subject to limited disclosure requirements concerning the fund's liquidity risk and risk management.¹⁰¹¹ As discussed in the Proposing Release, staff outreach has shown that funds today engage in a variety of different practices—ranging from comprehensive and rigorous to minimal and basic—for assessing the liquidity of their portfolios, managing liquidity risk, and disclosing information about their liquidity risk, redemption practices, and liquidity risk management practices to investors.¹⁰¹² We believe that the enhanced requirements for funds' assessment, management, and disclosure of liquidity risk and enhanced limits on illiquid investment holdings could decrease the chance that funds would be unable to meet their redemption obligations and mitigate potential dilution of non-redeeming shareholders'

¹⁰¹⁰ See *supra* section II.D; *infra* section IV.B.1.a.

¹⁰¹¹ See *supra* section II.D; *infra* section IV.B.1.c.

¹⁰¹² See *supra* section II.D; *infra* sections IV.B.1.a, IV.B.1.c.

interests.

The final liquidity regulations are also intended to lessen the possibility of early redemption incentives (and investor dilution) created by insufficient liquidity risk management, as well as the possibility that investors' share value will be diluted by costs incurred by a fund as a result of other investors' purchase or redemption activity. When a fund experiences significant redemption requests, it may sell portfolio securities or borrow funds in order to obtain sufficient cash to meet redemptions.¹⁰¹³ However, sales of a fund's portfolio investments conducted in order to meet shareholder redemptions could result in significant adverse consequences to non-redeeming shareholders when a fund fails to adequately manage liquidity. For example, if a fund sells portfolio investments under unfavorable circumstances, this could create dilution for non-redeeming shareholders.¹⁰¹⁴ Funds also may borrow from a bank or use interfund lending facilities to meet redemption requests, but there are costs (such as interest rates) associated with such borrowings. Both selling of portfolio investments and borrowing to meet redemption requests could cause funds to incur costs that would be borne mainly by non-redeeming shareholders.¹⁰¹⁵ These factors could result in dilution of the value of non-redeeming shareholders' interests in a fund,¹⁰¹⁶ which could create incentives for early redemptions in times of liquidity stress, and result in further dilution of non-redeeming shareholders' interests.¹⁰¹⁷ There also is a potential for adverse effects on the markets when open-end funds fail to adequately manage liquidity. For example, the sale of less liquid portfolio investments at

¹⁰¹³ See *supra* section II.B.2; *infra* sections IV.C.1, IV.C.2.

¹⁰¹⁴ See *supra* footnotes 79-80 and accompanying text.

¹⁰¹⁵ See *supra* footnote 259 and accompanying text.

¹⁰¹⁶ See *supra* footnotes 79-80 and accompanying text; *infra* sections IV.C.1, IV.C.2.

¹⁰¹⁷ See *supra* footnote 85 and accompanying text; *infra* sections IV.C.1, IV.C.2.

discounted or even fire sale prices when a fund is facing redemption pressures can produce significant negative price pressure on those investments and correlated investments, which can impact other investors holding these investments and may transmit stress to other funds or portions of the markets.¹⁰¹⁸ For reasons discussed in detail below, we believe that the liquidity risk management program requirement, including the enhanced restrictions on holdings of assets that are illiquid investments, should mitigate the risk of potential shareholder dilution and decrease the incentive for early redemption in times of liquidity stress.

Finally, the final liquidity regulations are meant to address recent industry developments that have underscored the significance of funds' liquidity risk management practices. In recent years, there has been significant growth in the assets managed by funds with strategies that focus on holding relatively less liquid investments, such as fixed income funds (including emerging market debt funds), open-end funds with alternative strategies, and emerging market equity funds.¹⁰¹⁹ There also has been considerable growth in assets managed by funds that exhibit characteristics that could give rise to increased liquidity risk, such as relatively high investor flow volatility.¹⁰²⁰ Additionally, as discussed in detail above, standard fund redemption and securities settlement periods have tended to become significantly shorter over the last several decades, which has caused funds to satisfy redemption requests within relatively short time periods (*e.g.*, within T+3, T+2, and next-day periods).¹⁰²¹ But while fund redemption periods have become shorter, certain funds, for example, certain bank loan funds and emerging market

¹⁰¹⁸ See *supra* footnote 89 and accompanying text.

¹⁰¹⁹ See *supra* section II.C.1; *infra* section IV.B.3; see also DERA Study, *supra* footnote 95, at 6-9. Relevant statistics from the DERA Study were updated through 2015 using the CRSP US Mutual Fund Database.

¹⁰²⁰ See *infra* section IV.B.3.

¹⁰²¹ See *supra* footnotes 102 and 103 and accompanying text.

debt funds, have increased their holdings of portfolio securities with relatively long settlement periods, which could result in a liquidity mismatch between when a fund plans or is required to pay redeeming shareholders, and when any asset sales that the fund has executed in order to pay redemptions will settle.¹⁰²² Collectively, these industry trends have emphasized the importance of effective liquidity risk management among funds and enhanced disclosure regarding liquidity risk and risk management.

B. Economic Baseline

The final liquidity regulations will affect all funds and their investors, investment advisers and other service providers, all issuers of the portfolio securities in which funds invest, and other market participants potentially affected by fund and investor behavior. The economic baseline of the final liquidity regulations includes funds' current practices regarding liquidity risk management and liquidity risk disclosure, as well as the economic attributes of funds that affect their portfolio liquidity and liquidity risk. These economic attributes include industry-wide trends regarding funds' liquidity and liquidity risk management, as well as industry developments highlighting the importance of robust liquidity risk management by funds.

1. Funds' Current Practices Regarding Liquidity Risk Management and Liquidity Risk Disclosure

a. Funds' Current Liquidity Risk Management Requirements and Practices

Under section 22(e) of the Investment Company Act, a registered investment company is required to make payment to shareholders for redeemable securities tendered for redemption within seven days of their tender.¹⁰²³ In addition to the seven-day redemption requirement in

¹⁰²² See *supra* footnotes 104, 105, 377, and 378 and accompanying text.

¹⁰²³ See section 22(e) of the Act. Section 22(e) of the Act provides, in part, that no registered investment company shall suspend the right of redemption or postpone the date of payment upon redemption of any redeemable security in accordance with its terms for more than seven days after tender of the security

section 22(e), registered investment companies that are sold through broker-dealers are required as a practical matter to meet redemption requests within three business days because broker-dealers are subject to rule 15c6-1 under the Exchange Act, which establishes a three-day (T+3) settlement period for purchases and sales of securities (other than certain types of securities exempted by the rule) effected by a broker or a dealer, unless a different settlement period is expressly agreed to by the parties at the time of the transaction. Furthermore, rule 22c-1 under the Act, the “forward pricing” rule, requires funds, their principal underwriters, and dealers to sell and redeem fund shares at a price based on the current NAV next computed after receipt of an order to purchase or redeem fund shares, even though cash proceeds from purchases may be invested or fund investments may be sold in subsequent days in order to satisfy purchase requests or meet redemption obligations.

With the exception of money market funds subject to rule 2a-7 under the Act, the Commission has not promulgated rules requiring open-end funds to hold a minimum level of liquid investments.¹⁰²⁴ The Commission historically has taken the position that open-end funds should maintain a high degree of portfolio liquidity to ensure that their portfolio securities and other assets can be sold and the proceeds used to satisfy redemptions in a timely manner in order to comply with section 22(e) and their other obligations.¹⁰²⁵ The Commission also has stated that open-end funds have a “general responsibility to maintain a level of portfolio liquidity that is appropriate under the circumstances,” and to engage in ongoing portfolio liquidity monitoring to determine whether an adequate level of portfolio liquidity is being maintained in light of the

absent specified unusual circumstances.

¹⁰²⁴ See *supra* footnotes 61–62 and accompanying text.

¹⁰²⁵ See Restricted Securities Release, *supra* footnote 37.

fund's redemption obligations.¹⁰²⁶ Open-end funds are also required by rule 38a-1 under the Act to adopt and implement written compliance policies and procedures reasonably designed to prevent violations of the federal securities laws, including policies and procedures that provide for the oversight of compliance by certain of the fund's service providers, and such policies and procedures should be appropriately tailored to reflect each fund's particular compliance risks; the rule also requires board approval and review of the service providers' compliance policies and procedures.¹⁰²⁷ An open-end fund that holds a significant portion of its assets in securities with long settlement periods or with infrequent trading, or an open-end fund that represents it will pay redemptions in fewer than seven days, for instance, may be subject to relatively greater liquidity risks than other open-end funds.

Additionally, long-standing Commission guidelines generally limit an open-end fund's aggregate investment in "illiquid assets" to no more than 15% of the fund's net assets (the "15% guideline").¹⁰²⁸ Under the 15% guideline, a portfolio security or other asset is considered illiquid if it cannot be sold or disposed of in the ordinary course of business within seven days at approximately the value at which the fund has valued the investment.¹⁰²⁹ The 15% guideline has generally limited funds' exposure to particular types of securities that cannot be sold within seven days and that the Commission and staff have indicated may be illiquid, depending on the facts and circumstances. Depositors of UITs are currently required to consider which of their restricted securities are illiquid.¹⁰³⁰

¹⁰²⁶ See *supra* footnote 64 and accompanying text.

¹⁰²⁷ See Rule 38a-1 Adopting Release, *supra* footnote 65.

¹⁰²⁸ See *supra* footnote 38 and accompanying text.

¹⁰²⁹ See *supra* footnote 39 and accompanying text.

¹⁰³⁰ See Rule 144A Release *supra* footnote 37 at n.61 (discussing liquidity requirements for UITs prior to the

As noted in the Proposing Release, staff outreach has shown that funds currently employ a diversity of practices with respect to assessing portfolio investments' liquidity, as well as managing liquidity risk. Section II.D.3 above provides an overview of these practices, which include, among others: assessing the ability to sell particular investments within various time periods, taking into account relevant market, trading, and other factors; monitoring initial liquidity determinations for portfolio investments (and modifying these determinations, as appropriate); holding certain amounts of the fund's portfolio in highly liquid investments or cash equivalents; establishing committed back-up lines of credit or interfund lending facilities; and conducting stress testing relating to the extent the fund has liquid investments to cover possible levels of redemptions.¹⁰³¹ Some commenters indicated that they view in-kind redemptions as an important liquidity risk management tool.¹⁰³² Another commenter noted that ETFs are often used to help manage liquidity risk because they can allow funds to maintain market exposure while ensuring sufficient liquidity.¹⁰³³ As noted in the Proposing Release, the staff has observed that some of the funds with relatively more thorough liquidity risk management practices have appeared to be able to meet periods of high redemptions without significantly altering the risk profile of the fund or materially affecting the fund's performance, and thus with few dilutive impacts. It therefore appears that these funds have generally aligned their portfolio liquidity with

adoption of rule 22e-4).

¹⁰³¹ See also, e.g., Nuveen FSOC Notice Comment Letter, *supra* footnote 85 (discussing stress tests of a fund's ability to meet redemptions over certain periods); BlackRock FSOC Notice Comment Letter, *supra* footnote 85 (discussing several overarching principles that provide the foundation for a prudent market liquidity risk management framework for collective investment vehicles, including an independent risk management function, compliance checks to ensure portfolio holdings do not exceed regulatory limits, a risk management function that is independent from portfolio management, and measuring levels of liquid assets into "tiers of liquidity"); Invesco FSOC Notice Comment Letter, *supra* footnote 248, at 11 (discussing liquidity analysis).

¹⁰³² See BlackRock Comment Letter; Invesco Comment Letter.

¹⁰³³ See BlackRock Comment Letter.

their liquidity needs, and that their liquidity risk management permits them to efficiently meet redemption requests. Other funds, however, employ portfolio investment liquidity assessment and liquidity risk management practices that are substantially less rigorous.¹⁰³⁴ As discussed above in section II.D.3, some funds do not take different market conditions into account when evaluating portfolio investment liquidity, and do not conduct ongoing liquidity monitoring. Likewise, some funds do not have independent oversight of their liquidity risk management outside of the portfolio management process. As a result, funds' procedures for assessing the liquidity of their portfolio securities, as well as the comprehensiveness and independence of their liquidity risk management, vary significantly.

A fund may meet redemption requests in a variety of ways, including by using cash, borrowing under a line of credit, or by selling portfolio investments. The fund's portfolio liquidity as well as its value will be affected by the choice of which investments are sold. Subsequent portfolio transactions after redemptions are met will also affect portfolio liquidity and value. For example, a fund facing a large redemption request might lessen the impact on portfolio value of selling investments by selling the most liquid portion of the portfolio or using some of its cash or a line of credit.¹⁰³⁵ That choice benefits non-redeeming investors by minimizing transaction costs and the loss in fund value due to the price impact of selling, but it also could increase the liquidity risk of the fund portfolio and the fund may incur transaction costs if it subsequently engages in portfolio transactions such as rebalancing towards its previous

¹⁰³⁴ See *infra* section IV.C.1.b, where the potential consequences of less rigorous liquidity risk management are discussed in the context of risk management program benefits.

¹⁰³⁵ We note that in some instances, selling only the most liquid investments to meet a large redemption could be inconsistent with the fund's investment mandate. For example, if a fund's investment mandate required it to hold a certain percentage of its portfolio in equities, the fund might not be able to sell a large portion of its equity holdings to meet redemption requests and still hold the required percentage of its portfolio in equities.

portfolio allocation.¹⁰³⁶ If the fund instead were to sell a “strip” of the portfolio (*i.e.*, a cross-section or representative selection of the fund’s portfolio investments), the immediate impact on fund value may be greater, but the liquidity of the fund portfolio would be unchanged as a result of the sale. Funds also could choose to meet redemptions by selling a range of investments in between their most liquid, on one end of the spectrum, and a perfect *pro rata* strip of investments, on the other end of the spectrum.¹⁰³⁷ All of the above ways by which a fund may meet redemptions potentially occur in conjunction with other strategic portfolio management decisions, such as opportunistically paring back or eliminating holdings in a particular investment or sector while meeting redemptions.

Staff analysis of the impact of large redemptions on U.S. equity fund portfolio liquidity is consistent with the hypothesis that the average U.S. equity fund does not sell a strip of its portfolio investments to meet large redemptions, but instead appears—based on changes in funds’ portfolio liquidity following net outflows—to disproportionately sell the more liquid portion of its portfolio for this purpose.¹⁰³⁸ Similarly, staff analysis shows that after a U.S. municipal bond fund encounters net outflows, the typical U.S. municipal bond fund will experience an increase in its holdings of municipal bonds (and a decrease in its holdings of cash

¹⁰³⁶ See, *e.g.*, *supra* footnote 71 (discussing recent circumstances in which, during a year of heavy redemptions that caused a high yield bond fund’s assets to shrink 33% in this period, the fund’s holdings of lower quality bonds grew to 47% of assets, from 35% before the redemptions).

¹⁰³⁷ See, *e.g.*, Hao Jiang, Dan Li, and Ashley Wang, *Dynamic Liquidity Management by Corporate Bond Mutual Funds* (May 6, 2016) (unpublished working paper), available at http://papers.ssrn.com/sol3/papers.cfm?abstract_id=2776829. The study presents preliminary evidence consistent with the notion that corporate bond funds tend to sell proportional “strips” of their portfolios during periods of high market volatility and disproportionately sell more liquid assets during periods of lower market volatility.

¹⁰³⁸ DERA Study, *supra* footnote 95, at 43–46. The DERA Study analyzes U.S. equity mutual fund liquidity management trends using the Amihud liquidity measure. See Proposing Release, *supra* footnote 9, at n.621. We respond to comments on this result and other aspects of the DERA study in section IV.C.1.f.

and cash equivalents), potentially decreasing the fund's overall portfolio liquidity.¹⁰³⁹

b. Funds' Current Liquidity Risk Disclosure Requirements and Practices

Items 4 and 9 of Form N-1A require a fund to disclose the principal risks of investing in the fund.¹⁰⁴⁰ A fund currently must disclose the risks to which the fund's portfolio as a whole is expected to be subject and the circumstances reasonably likely to adversely affect the fund's NAV, yield, or total return.¹⁰⁴¹ Some funds currently disclose that liquidity risk is a principal risk of investing in the fund, but often do so in a generic way.

Item 11 of Form N-1A requires a fund to describe its procedure for redeeming fund shares, including restrictions on redemptions, any redemption charges, and whether the fund has reserved the right to redeem in kind.¹⁰⁴² Disclosure regarding other redemption information, such as the timing of payment of redemption proceeds to fund shareholders, varies across funds as there are currently no specific requirements for this disclosure. Some funds disclose that they will redeem shares within a specific number of days after receiving a redemption request, other funds disclose that they will honor such requests within seven days (as required by section 22(e) of the Act), and others provide no specific time periods. Additionally, some funds disclose differences in the timing of payment of redemption proceeds based on the payment method by which the fund shares are redeemed, while others do not.

Funds are not currently required to disclose information about the liquidity of their portfolio investments. However, some funds voluntarily disclose in their registration statements any specific limitations applicable to the fund's investment in 15% guideline assets, as well as

¹⁰³⁹ DERA Study, *supra* footnote 95, at 47-49.

¹⁰⁴⁰ Item 4(b)(1)(i) and Item 9(c) of Form N-1A.

¹⁰⁴¹ *Id.*

¹⁰⁴² Item 11(c) of Form N-1A.

types of assets considered by the fund to be subject to the 15% guideline.

Form N-1A does not currently require funds to disclose information about liquidity risk management practices such as the establishment (or use) of committed back-up lines of credit. A fund is, however, required to disclose information regarding the amount and terms of unused lines of credit for short-term financing, as well as information regarding related party transactions in its financial statements or notes thereto.¹⁰⁴³

2. *Fund Industry Developments Regarding Funds' Liquidity Risk Management*

a. Overview

Below we discuss the size and growth of the U.S. fund industry generally, as well as the growth of various investment strategies within the industry. We show that the fund industry has grown significantly in the past two decades, and during this period, funds with international strategies, fixed income funds, and funds with alternative strategies have grown particularly quickly. We also determine the types of funds that demonstrate notably volatile and unpredictable flows. Because volatility and predictability in a fund's flows can affect the extent to which the fund is able to meet expected and reasonably foreseeable redemption requests without diluting the interests of fund shareholders, assessing trends regarding these factors can provide information about sectors of the fund industry that could be particularly susceptible to liquidity risk.

While we believe that these trends are relevant from the perspective of addressing potential liquidity risk in the fund industry (and in funds' underlying portfolio investments), we emphasize that liquidity risk is not confined to certain types of funds or investment strategies. Although we recognize that certain fund characteristics could make a fund relatively more prone

¹⁰⁴³ See 210.5-02.19(b) and 210.4-08(k) of Regulation S-X.

to liquidity risk, we believe that all types of funds entail liquidity risk to some extent.¹⁰⁴⁴ Thus, while in this section we discuss certain types of funds and strategies that are generally considered to exhibit increased liquidity risk, we are not asserting that *only* these types of funds and strategies involve liquidity risk, or that a fund of the type and with the strategy discussed below necessarily demonstrates greater liquidity risk than a fund that does not have these same characteristics.

b. Size and Growth of the U.S. Fund Industry and Various Investment Strategies Within the Industry

Open-end funds and ETFs manage a significant and growing amount of assets in U.S. financial markets. As of the end of 2015, there were 10,633 open-end funds (excluding money market funds, but including ETFs), as compared to 5,279 at the end of 1996.¹⁰⁴⁵ The assets of these funds were approximately \$15.0 trillion in 2015, having grown from about \$2.63 trillion in 1996.¹⁰⁴⁶ Within these figures, the number of ETFs and ETFs' assets have increased notably in the past decade. There were 1,594 ETFs in 2015, as opposed to a mere 119 in 2003, and ETFs' assets have increased from \$151 billion in 2003 to \$2.1 trillion in 2015.¹⁰⁴⁷

U.S. equity funds represent the greatest percentage of U.S. open-end fund industry assets.¹⁰⁴⁸ Open-end U.S. equity funds, excluding ETFs, money market funds and variable annuities, held 44.7% of U.S. fund industry assets as of the end of 2015. The investment strategies with the next-highest percentages of U.S. fund industry assets are foreign equity funds

¹⁰⁴⁴ See *supra* section III.A.2.

¹⁰⁴⁵ See 2016 ICI Fact Book, *supra* footnote 11, at 22, 176, 183. Specifically, as of the end of 2015, there were 9,039 open-end mutual funds (including funds that invest in other funds) and 1,594 ETFs. There were approximately 50 ETFs that invest in other ETFs, which are not included in our figures.

¹⁰⁴⁶ See 2016 ICI Fact Book, *supra* footnote 11, at 174, 182.

¹⁰⁴⁷ See 2016 ICI Fact Book, *supra* footnote 11, at 182, 183.

¹⁰⁴⁸ DERA Study, *supra* footnote 95, at Table 1.

(16.7%), general bond funds (13.2%), and mixed strategy funds (12.3%).¹⁰⁴⁹ Funds with alternative strategies¹⁰⁵⁰ only represent a small percentage of the U.S. fund industry assets, but as discussed below, the number of alternative strategy funds and the assets of this sector have grown considerably in recent years.¹⁰⁵¹

While the overall growth rate of funds' assets has been generally high (about 7.2% per year, between the years 2000 and 2015¹⁰⁵²), it has varied significantly by investment strategy.¹⁰⁵³ U.S. equity funds' assets grew substantially in terms of dollars from the end of 2000 to 2015,¹⁰⁵⁴ but this sector's assets as a percentage of total U.S. fund industry assets decreased from about 65% to about 45% during that same period.¹⁰⁵⁵ Like U.S. equity funds, the assets of U.S. corporate bond funds, government bond funds, and municipal bond funds also increased in terms of dollars from 2000 to 2015, but each of these sectors' assets as a percentage of the fund industry decreased during this period.¹⁰⁵⁶ On the other hand, the assets of foreign equity funds,

¹⁰⁴⁹ *Id.* The figure for general bond funds does not include assets attributable to foreign bond funds (1.9%), U.S. corporate bond funds (0.8%), U.S. government bond funds (1.4%), and U.S. municipal bond funds (4.7%). The figure for mixed strategy funds includes assets of, among others, target date funds, convertible securities funds, and flexible portfolio funds.

¹⁰⁵⁰ Alternative funds are funds that seek total returns through the use of alternative investment strategies, including but not limited to equity market neutral, long/short equity, global macro, event driven, credit focus strategies.

¹⁰⁵¹ DERA Study, *supra* footnote 95, at 7-8.

¹⁰⁵² DERA Study, *supra* footnote 95, at Table 2.

¹⁰⁵³ The figures in this paragraph and the following paragraph, discussing the variance in growth rate of funds' assets by investment strategy, exclude ETF assets.

¹⁰⁵⁴ U.S. equity funds held about \$5.6 trillion as the end of 2015, compared to about \$2.9 trillion at the end of 2000. DERA Study, *supra* footnote 95, at Table 2.

¹⁰⁵⁵ DERA Study, *supra* footnote 95, at Table 2.

¹⁰⁵⁶ *Id.* U.S. corporate bond funds held about \$95 billion at the end of 2015, as opposed to \$66 billion in 2000; these funds' assets as a percentage of the U.S. fund industry decreased from 1.5% in 2000 to 0.8% in 2015. U.S. government bond funds held about \$174 billion at the end of 2015, as opposed to \$91 billion in 2000; these funds' assets as a percentage of the U.S. fund industry decreased from 2.1% in 2000 to 1.4% in 2015. U.S. municipal bond funds held about \$592 billion at the end of 2015, as opposed to \$278 billion in 2000; these funds' assets as a percentage of the U.S. fund industry decreased from 6.3% in 2000 to 4.7% in 2015.

general bond funds, and foreign bond funds increased steadily and substantially as a percentage of the fund industry over the same period.¹⁰⁵⁷ For example, foreign equity funds increased steadily from 10.6% of total industry assets in 2000 to 16.7% in 2015. And within these three investment strategies, certain investment subclasses (emerging market debt and emerging market equity) have grown particularly quickly from 2000 to 2015.¹⁰⁵⁸ The overall growth rate of funds' assets between the years 2000 and 2015 was greater for index funds (12.3%) than actively managed funds (4.9%).¹⁰⁵⁹

The assets of funds with alternative strategies¹⁰⁶⁰ also have grown rapidly in recent years. From 2005 to 2015, the assets of alternative strategy funds grew from \$366 million to \$310 billion, and from the end of 2011 to the end of 2013, the assets of alternative strategy funds grew by an average rate of almost 80% each year. However, as discussed above, funds with alternative strategies remain a relatively small portion of the U.S. fund industry as a percentage of total assets.¹⁰⁶¹

¹⁰⁵⁷ *Id.* Foreign equity funds held about \$2.1 trillion in 2015, as opposed to \$465 billion in 2000. U.S. general bond funds held about \$1.7 trillion at the end of 2015, as opposed to \$240 billion in 2000; these funds' assets as a percentage of the U.S. fund industry increased from 5.4% in 2000 to 13.2% in 2015. Foreign bond funds held about \$244 billion at the end of 2015, as opposed to \$19 billion in 2000; these funds' assets as a percentage of the U.S. fund industry increased from 0.4% in 2000 to 1.9% in 2015.

¹⁰⁵⁸ DERA Study, *supra* footnote 95, at 9. Emerging market debt and emerging market equity funds held about \$289 billion at the end of 2015, as opposed to \$20 billion in 2000. The assets of emerging market debt funds and emerging market equity funds grew by an average of 18.1% and 19.8%, respectively, each year from 2000 through 2015.

These investment subclasses represent a small portion of the U.S. mutual fund industry (the combined assets of these investment subclasses as a percentage of the U.S. fund industry was 2.3% at the end of 2015).

¹⁰⁵⁹ See 2016 ICI Fact Book, *supra* footnote 11, at 174, 218.

¹⁰⁶⁰ See *supra* footnote 95 for a discussion of the primary investment strategies practiced by "alternative strategy" funds.

¹⁰⁶¹ See *supra* footnote 1051 and accompanying text.

c. Significance of Fund Industry Developments

The industry developments discussed above are notable for several reasons. The growth of funds generally over the past few decades demonstrates that investors have increasingly come to rely on investments in funds to meet their financial needs.¹⁰⁶² These trends also demonstrate growth in particular types of funds that may entail increased liquidity risk. In particular, there has been significant growth in high-yield bond funds, emerging market debt funds, and funds with alternative strategies. Commissioners and Commission staff have previously spoken about the need to focus on potential liquidity risks relating to fixed income assets and fixed income funds,¹⁰⁶³ and within this sector, funds that invest in high-yield bonds could be subject to greater liquidity risk as they invest in lower-rated bonds that tend to be less liquid than investment grade fixed income securities.¹⁰⁶⁴ Emerging market debt funds may invest in relatively illiquid securities with lengthy settlement periods.¹⁰⁶⁵ Likewise, funds with alternative strategies may hold portfolio investments that are relatively illiquid.¹⁰⁶⁶ Moreover, Commission staff

¹⁰⁶² See *supra* footnote 21 and accompanying text.

¹⁰⁶³ See *supra* footnote 93 and accompanying text.

¹⁰⁶⁴ The Commission and Commission staff have cautioned that high yield securities may be considered to be illiquid, depending on the facts and circumstances. See Interval Fund Proposing Release, *supra* footnote 41; see also SEC Investor Bulletin, What Are High-Yield Corporate Bonds?, SEC Pub. No. 150 (June 2013), available at http://www.sec.gov/investor/alerts/ib_high-yield.pdf (noting that high-yield bonds may be subject to more liquidity risk than, for example, investment-grade bonds). But see Who Owns the Assets?, *supra* footnote 378 (discussing the liquidity characteristics of high-yield bond funds in depth, and noting that these funds have weathered multiple market environments, and are generally managed with multiple sources of liquidity).

¹⁰⁶⁵ See, e.g., *supra* footnote 377 and accompanying text (discussing the settlement cycles associated with transactions in certain foreign securities); see also Reuters, *Fitch: Close Look at EM Corporate Bond Trading Reveals Liquidity Risks* (Apr. 16, 2015), available at <http://www.reuters.com/article/2015/04/16/idUSFit91829620150416>. But see Who Owns the Assets?, *supra* footnote 378 (discussing the liquidity characteristics of emerging market debt funds in depth, and noting that these funds tend to hold a portion of their assets in developed market government bonds (providing further liquidity), generally establish limits on less liquid issuers, and generally maintain allocations to cash for liquidity and rebalancing purposes).

¹⁰⁶⁶ See *supra* footnotes 99-100 and accompanying text.

economists have found that both foreign bond funds (including emerging market debt funds) and alternative strategy funds have historically experienced relatively more volatile and unpredictable flows than the average mutual fund,¹⁰⁶⁷ which could increase these funds' liquidity risks by making it more likely that a fund may need to sell portfolio investments in a manner that creates a market impact in order to pay redeeming shareholders.

One commenter has argued that flow volatility, which staff economists have used as a measure of liquidity risk, does not necessarily translate into liquidity risk.¹⁰⁶⁸ In this commenter's view, for example, a fund with volatile but predictable flows may have less liquidity risk than a fund with less volatile but less predictable flows. Likewise, a U.S. equity fund could have much greater flow volatility than a foreign bond mutual fund without having greater liquidity risk because the equity fund's assets are more liquid. However, differences in average flow volatility between fund categories persist after accounting for predictability, and the analysis suggests that changes in flow volatility may influence the management of fund liquidity.¹⁰⁶⁹ Flow volatility is not the sole determinant of liquidity risk for a fund, but it is an important determinant, which makes it useful in helping understand differences in potential liquidity risk within and between fund categories.

The same commenter has also suggested that the same approach of measuring liquidity risk does not consider the usage of derivatives in managing volatile flows, noting that they are often more liquid than their underlying assets.¹⁰⁷⁰ We acknowledge that derivatives could play a role in managing fund flows. As is the case for corporate bond holding data, data on fund

¹⁰⁶⁷ DERA Study, *supra* footnote 95, at 16-24.

¹⁰⁶⁸ ICI Comment Letter II.

¹⁰⁶⁹ DERA Study, *supra* footnote 95, at 23-24, 37.

¹⁰⁷⁰ ICI Comment Letter II.

holdings of derivatives is limited so our analysis of holdings level data was necessarily limited to U.S. equity funds.

C. Benefits and Costs, and Effects on Efficiency, Competition, and Capital Formation

Taking into account the goals of the final liquidity regulations and the economic baseline, as discussed above, this section discusses the benefits and costs of the final liquidity regulations, as well as the potential effects of the final liquidity regulations on efficiency, competition, and capital formation. This section also discusses reasonable alternatives to rule 22e-4 and the disclosure and reporting requirements regarding funds' liquidity risk and liquidity risk management.

1. Rule 22e-4

a. Summary of Rule 22e-4's Requirements

Rule 22e-4 will require each fund to establish a written liquidity risk management program. The rule specifies that a fund's liquidity risk management program shall include the following required program elements: (i) assessment, management, and periodic review of the fund's liquidity risk; (ii) classification of the liquidity of each of the fund's portfolio investments based on asset class, so long as the fund or its adviser does not have information about any market, trading, or investment-specific considerations that are reasonably expected to significantly affect the liquidity characteristics of an investment that would suggest a different classification for that investment;¹⁰⁷¹ (iii) determining and periodically reviewing a highly liquid investment minimum and adopting and implementing policies and procedures for responding to a shortfall of the fund's assets that are highly liquid investments below its highly liquid investment

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Rule 22e-4 (b)(1)(ii)

minimum; (iv) prohibiting the fund’s acquisition of “illiquid investments” (that is, any investment that the fund reasonably expects cannot be sold or disposed of in current market conditions in seven calendar days or less without the sale or disposition significantly changing the market value of the investment) if, following the acquisition, the fund would hold more than 15% of its net assets in assets that are illiquid investments; (v) requiring a fund whose illiquid investments that are assets exceed 15% of its net assets to conduct certain board reporting; and (vi) for funds that engage in, or reserve the right to engage in, redemptions in kind, establishing policies and procedures regarding how and when it will engage in such redemptions in kind.¹⁰⁷²

A fund’s board, including a majority of the fund’s independent directors, will be required to provide general oversight of the fund’s liquidity risk management program, but the board would not have to approve the fund’s highly liquid investment minimum.¹⁰⁷³ The fund will be required to designate the fund’s adviser or officer(s) responsible for administering the program, and such designation is required to be approved by the fund’s board of directors.¹⁰⁷⁴ The fund’s board will also be required to review, at least annually, a written report prepared by the fund’s investment adviser or officer(s) administering the liquidity risk management program reviewing the adequacy and effectiveness of the implementation of the fund’s liquidity risk management program, including the fund’s highly liquid investment minimum, and the effectiveness of its implementation.¹⁰⁷⁵

Rule 22e-4 also includes certain recordkeeping requirements. A fund will be required to keep a written copy of its liquidity risk management policies and procedures, as well as copies of

¹⁰⁷² Proposed rule 22e-4(b)(2)(iv).

¹⁰⁷³ Proposed rule 22e-4(b)(3)(i).

¹⁰⁷⁴ Proposed rule 22e-4(b)(3)(iii).

¹⁰⁷⁵ Rule 22e-4(b)(3)(ii).

any materials provided to the fund’s board in connection with the approval of the initial liquidity risk management program and annual board reporting requirement.¹⁰⁷⁶ A fund will also be required to keep a written record of how its highly liquid investment minimum, and any adjustments thereto, were determined.¹⁰⁷⁷

In addition, two types of funds are subject to tailored requirements by the final rule. First, funds that primarily hold highly liquid assets do not have to establish a highly liquid investment minimum as part of their liquidity risk management programs.¹⁰⁷⁸ Second, ETFs are required to assess and manage liquidity risk with respect to certain additional factors tailored to the specific risks of ETFs.¹⁰⁷⁹ However, an ETF that meets the final rule’s definition of an “In-Kind ETF” is not required to establish a highly liquid investment minimum or to classify its individual portfolio holdings.¹⁰⁸⁰

In addition to the special treatment of In-Kind ETFs and primarily highly liquid funds, the final rules differ from the proposed version in several ways that may have economic consequences: (1) it integrates the definition of illiquid investments subject to the 15% illiquid investment limit as a part of the portfolio classification process, requiring the consideration of market, trading, and investment-specific factors and market depth in determining whether an investment is illiquid, as well as the periodic review of this assessment at least monthly; (2) it reduces the number of categories used to classify portfolio investment liquidity from six to four and requires fewer long-term liquidity projections; (3) it simplifies portfolio position

¹⁰⁷⁶ Rule 22e-4(c)(1) and (2).

¹⁰⁷⁷ Rule 22e-4(c)(3).

¹⁰⁷⁸ Rule 22e-4(b)(1)(iii)(A).

¹⁰⁷⁹ Rule 22e-4(b)(1)(iii)(D)-(E).

¹⁰⁸⁰ See *infra* footnote 846 and accompanying text for the definition of “In-Kind ETF.”

classification by allowing them to be based on asset classes, with customized exceptions for individual positions where necessary;¹⁰⁸¹ (4) it does not prohibit the acquisition of less liquid investments if a fund goes below its highly liquid investment minimum, but instead requires that a fund report to its board if it goes below its highly liquid investment minimum, and, if the shortfall lasts more than 7 consecutive calendar days, also requires reporting to the Commission; (5) it requires that a fund's board approve and annually review a report concerning its liquidity risk management program, but generally does not require the board to approve the highly liquid investment minimum (except in some circumstances) or material changes to these programs; (6) it requires that a fund assess its liquidity risk with respect to several factors, where applicable, in both stressed and normal market conditions, whether its strategy is appropriate for an open-ended fund, and whether its strategy involves a concentrated portfolio or large positions in particular issuers;¹⁰⁸² (7) it requires that principal underwriters or depositors of UITs to determine, on or before the date of the initial deposit of portfolio securities into a UIT, that the portion of the illiquid investments that the UIT holds or will hold at the date of deposit that are assets is consistent with the redeemable nature of the securities that it issues; and (8) requires that In-Kind ETFs offer daily transparency by posting on the ETF's website on each day that the national securities exchange on which the fund's shares are listed is open for business, before commencement of trading of fund shares on the exchange, the identities and quantities of the securities, assets or other positions held by the fund, or its respective master fund, that will form the basis for the fund's calculation of net asset value at the end of the business day.

¹⁰⁸¹ See *supra* footnote 408 and accompanying text.

¹⁰⁸² Rule 22e-4(b)(1)(iii)(A)-(C).

b. Benefits

Rule 22e-4, as adopted, should produce the same broad benefits for current and potential fund investors as discussed in the proposal. Where appropriate, we discuss below any changes in these benefits due to differences between the proposed and final rules. Specifically, the liquidity risk management program requirements are likely to improve investor protection by decreasing the chance that some funds may be unable to meet their redemption obligations, would meet such obligations by diluting the fund's shares, or would meet such obligations through methods that would have other adverse impacts on non-redeeming investors (*e.g.*, increased risk exposure and decreased liquidity). To the extent that some funds do not currently meet the liquidity risk management standards required by the rule—either by meeting the rule's minimum baseline requirements for fund assessment and management of liquidity risk or via alternative liquidity risk management approaches—investor protection will be enhanced by imposing these minimum requirements on funds.

We believe that the liquidity risk management program requirement should promote improved alignment of the liquidity of the fund's portfolio with the fund's expected (and reasonably foreseeable) levels of redemptions. As discussed above, rule 22e-4 will require each fund to classify the liquidity of its portfolio investments in assessing its liquidity risk, and to determine a highly liquid investment minimum to increase the likelihood that the fund will hold adequate liquid investments to meet redemption requests without significant dilution. Each fund will have flexibility to determine the particular investments that it holds in connection with its highly liquid investment minimum. Assets eligible for inclusion in a fund's highly liquid investment minimum could include a broad variety of securities, as well as cash and cash equivalents. While one fund may conclude that it is appropriate to hold a significant portion of

its assets that are highly liquid investments in cash and cash equivalents, another could decide it is appropriate to hold assets that are convertible to cash within longer periods (but not exceeding three business days) as the majority of its highly liquid investments. The highly liquid investment minimum requirement should allow funds to continue to meet a wide variety of investors' investment needs by obliging funds to maintain appropriate liquidity in their portfolios. The proposed rule would have required funds to set a firm three-day liquid asset minimum, prohibiting the acquisition of relatively less liquid assets until a fund was back above its minimum, instead of allowing them to operate below the minimum with board notification, so the final rule should mitigate any unfavorable market effects related to the systematic purchase or sale of investments once a strict minimum was exceeded. In extreme cases—for example, if investments that the fund sought to purchase were trading at fire sale prices due to a market event—a fund could go below its minimum to trade opportunistically. However, that might cause the fund to operate below its highly liquid investment minimum for more than 7 consecutive calendar days, requiring reporting to the fund's board and the Commission within one business day, so funds may be hesitant to take advantage of attractive market prices when they are close to their minimum under the final rule. The ability to deviate from the minimum for up to 7 consecutive calendar days with required reporting at the next regular board meeting, or for longer periods provided the fund reports to the board and the Commission, could also reduce the likelihood that funds set artificially low minimums, which would be less protective of investors than a minimum with some flexibility built in such as the one we are adopting. The limitation on the acquisition of assets that are illiquid investments to no more than 15% of net assets, along with the corresponding enhancements to how investment illiquidity is assessed, complements the highly liquid investment minimum requirement by increasing the likelihood

that a fund's portfolio is not overly concentrated in investments whose liquidity is limited. Furthermore, the additional board reporting requirements triggered when a fund's illiquid investments that are assets exceed 15% of net assets decreases the likelihood that a fund's portfolio is overly concentrated in investments classified as illiquid for an extended period of time without board oversight.

We believe that the rule also will decrease the probability that a fund will need to meet redemption requests through activities that can materially affect the fund's NAV or risk profile or dilute the interests of fund shareholders. For example, when a fund is insufficiently liquid or does not effectively manage liquidity and is faced with significant redemptions, or both, it may be forced to sell portfolio investments under unfavorable circumstances, which could create significant negative price pressure on those investments.¹⁰⁸³ This, in turn, could disadvantage non-redeeming shareholders by decreasing the value of those shareholders' interests in the fund.¹⁰⁸⁴ Even if a fund were to sell the most liquid portion of its portfolio to meet redemption requests, which would minimize the loss in fund value due to the price impact of selling, these asset sales could decrease the liquidity of the fund portfolio, potentially creating increased liquidity risk for non-redeeming shareholders. As discussed above, staff analysis is consistent with the hypothesis that U.S. equity funds may disproportionately sell more liquid assets, especially when facing significant outflows, as opposed to selling a *pro rata* "strip" of the fund's portfolio assets, which minimizes price impact on a fund in the short term, but ultimately decreases the liquidity of the fund's portfolio.¹⁰⁸⁵ Short-term borrowings by a fund to meet

¹⁰⁸³ See Coval & Stafford, *supra* footnote 86 (discussing how mutual fund fire sales impact asset prices).

¹⁰⁸⁴ While the impact of fire sales on asset prices may be short lived in some instances, Coval and Stafford show that the impact of fire sales can often take many months to dissipate. *Id.*

¹⁰⁸⁵ See *supra* footnote 1038 and accompanying text.

redemption requests could also disadvantage non-redeeming shareholders by leveraging the fund, which requires the fund to pay interest on the borrowed funds (although, in some instances, the costs of borrowing may be less than the costs of selling assets to meet redemptions) and magnifies any gains or losses to non-redeeming shareholders. Moreover, the costs of borrowing (that is, the costs associated with maintaining a committed line of credit, as well as interest expenses associated with drawing on a credit line) could be passed on to fund shareholders in the form of fund operating expenses, which adversely affect a fund's NAV. To the extent that the program requirement results in liquidity risk assessment and management that enhance funds' ability to meet redemption obligations, it will be less likely that a fund takes actions to pay redemptions that cause dilution or have other adverse impacts on non-redeeming shareholders.

The potential negative consequences of asset sales undertaken to pay fund redemptions could create early redemption incentives in times of liquidity stress, or a "first-mover advantage."¹⁰⁸⁶ For example, academic studies have suggested that an incentive exists for market participants to front-run trades conducted by a fund in response to significant changes in fund flows.¹⁰⁸⁷ This suggests that sophisticated fund investors could anticipate that significant fund outflows could lead a fund to conduct trades that would disadvantage non-redeeming shareholders, which could create an incentive to redeem ahead of such trades. If investors' redemptions are motivated by a first-mover advantage, this could lead to increasing levels of redemptions, and as the level of outflows from a fund increases, the incentive to redeem also

¹⁰⁸⁶ See *supra* footnote 85 and accompanying text (discussing the possibility of a first-mover advantage with respect to the timing of shareholder redemption from funds, but also arguments that such a first-mover advantage does not exist in funds, as well as arguments that even if incentives to redeem ahead of other shareholders do exist, this does not necessarily imply that investors will in fact redeem *en masse* in times of market stress).

¹⁰⁸⁷ See Coval & Stafford, *supra* footnote 86; Dyakov & Verbeek, *supra* footnote 86.

increases. Any negative effects on non-redeeming shareholders thus could be magnified by a first-mover advantage to the extent that this dynamic produces growing redemptions and decreasing portfolio liquidity. The first-mover advantage is more commonly discussed with respect to money market funds, especially institutional prime money market funds that operated under a fixed NAV prior to the 2014 reform (that will become effective October 14, 2016), but the incentives that have been argued to create the first-mover advantage among those funds could in theory exist (in possibly weaker form) among other open-end funds. We agree with commenters that the empirical support for the existence of a first-mover advantage is not conclusive and that the mutual fund industry has been able to successfully navigate periods of historical market stress.¹⁰⁸⁸ While we understand that fund investors may not have historically been motivated to redeem on account of a perceived (or actual) first-mover advantage during previous periods of stress, we cannot predict how investors may behave in the future. To the extent that economic incentives exist to redeem fund shares prematurely, such redemptions could lead to investor dilution as discussed above, and the possibility of protecting against this potential dilution could be one benefit of rule 22e-4.

The program requirement aims to promote a minimum baseline for liquidity risk management in the fund industry. This should promote investor protection by elevating the overall quality of liquidity risk management across the fund industry, reducing the likelihood that funds will meet redemption obligations only through activities that could significantly dilute

¹⁰⁸⁸ See, e.g., Comment Letter of Wellington Management Group LLP on the Notice Seeking Comment on Asset Management Products and Activities, Docket No. FSOC-2014-0001 (Mar. 25, 2015), at 4; ICI FSOC Notice Comment Letter, *supra* footnote 68, at 7; Nuveen FSOC Notice Comment Letter, *supra* footnote 85, at 10; Dechert Comment Letter; Vanguard Comment Letter; Comment Letter of the Independent Trustees of Fidelity Fixed Income and Asset Allocation Funds (Jan. 13, 2016) (all arguing that evidence shows that fund shareholders' redemptions are largely driven by other concerns rather than a theoretical first-mover advantage).

shareholders or adversely affect fund risk profiles. Shareholders in funds that already engage in strong liquidity risk management practices may be less likely to benefit from the program requirement, or may benefit less, than shareholders in funds that do not employ equally rigorous practices. We cannot quantify the total benefits to fund operations and investor protection that we discuss above, but to the extent that staff outreach has noted that some funds currently have no (or very limited) formal liquidity risk management programs in place, rule 22e-4 would enhance current liquidity risk management practices.

Finally, to the extent that the program requirement results in funds less frequently needing to sell portfolio investments in unfavorable market conditions in order to meet redemptions, the requirement also could lower potential spillover risks that funds could pose to the financial markets generally. If, as a result of the program requirement, a fund was prepared to meet redemption requests in other ways, the rule could decrease the risk that the fund might indirectly transmit stress to other market sectors and participants. The rule should help ensure that all funds, not just those with liquidity risk management practices currently in place, operate in a manner that lessens the chance of spillover risks. We are unable to quantify this potential benefit because we cannot predict the extent to which funds would enhance their current liquidity risk management practices as a result of rule 22e-4, or predict the precise circumstances that could entail negative spillover effects in light of less-comprehensive liquidity risk management by funds.¹⁰⁸⁹

Commenters generally did not disagree with the benefits of the proposed rule, with any exceptions noted in the above discussion of rule 22e-4's benefits. As discussed above, the final

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The ability of the Commission to perform such analysis is limited by difficulties in both gathering data about funds' liquidity risk management practices and quantifying such data.

rule differs from the proposal in several key respects, but it largely preserves the proposed rule's benefits. First, funds that primarily hold assets that are highly liquid investments are not required to establish a highly liquid investment minimum, so any benefits that might have accrued to shareholders of these funds under the proposed rule may be diminished. However, these funds are less likely to be exposed to the liquidity risks discussed above to the same degree as other funds, so any loss in benefits should be negligible and is likely to be less than the costs of establishing a minimum. Similarly, In-Kind ETFs are exempt from certain aspects of the final rule, because the benefits of those aspects of the final rule would have been insignificant for In-Kind ETFs. The final rule instead achieves benefits with respect to ETFs by replacing these less-apposite requirements with new tailored requirements for ETFs that are designed to promote the proper management of ETF liquidity, focused on preventing the arbitrage mechanism that keeps ETFs priced properly from being adversely impacted by a lack of liquidity. In addition, the new requirement for daily transparency will permit the sophisticated authorized participants that directly interact with the ETF to effectively evaluate the liquidity of the ETF's holdings. Since nearly all In-Kind ETFs already provide daily transparency as a matter of course, we believe no additional costs arise for In-Kind ETFs.¹⁰⁹⁰

Second, modifications to the proposal allow funds to classify portfolio investments via assignments to asset classes as a default, but require them to classify specific investments separately if they merit special attention,¹⁰⁹¹ which preserves the benefits of investment liquidity

¹⁰⁹⁰ We note that ETMFs are not required to provide such daily transparency under their orders, and thus would need to choose to provide such daily transparency if they wished to take advantage of this provision. Choosing to take advantage of this provision is within the discretion of ETFs that could potentially qualify as In-Kind. As discussed in the PRA section below, we estimate that not all ETFs would qualify as In-kind, either because of their use of cash for redemptions or because of their choice not to provide daily transparency of holdings.

¹⁰⁹¹ See *supra* footnote 1064 and accompanying text.

classification without imposing the additional cost of individually classifying each portfolio position in all cases. Third, the rule's simplification of classification categories from six to four, with shorter-term horizons, still provides a reasonably nuanced view of a fund portfolio's position-level liquidity while responding to commenters' concerns that the proposed rule's more detailed classification would have required too much precision at long-term horizons and would not accurately reflect a fund's actual liquidity profile. Fourth, the final rule should preserve the benefits of board oversight of a fund's liquidity risk management program without requiring that board members approve the highly liquid investment minimum (except in certain circumstances). The modifications to the board's role make the board's involvement in the liquidity risk management more consistent with the board's historical duty to provide oversight (instead of day-to-day management).

Changes to the final rule could also provide additional benefits relative to the proposal. While the final rule clarifies that the factors a fund should consider in devising a liquidity risk management program may be considered as appropriate, it also requires that funds consider two additional factors—whether a given strategy is appropriate in an open-ended fund or involves a concentrated portfolio or concentrated positions in particular issuers—which could improve the risk management program's effectiveness for funds that do not already consider these factors. The final rule also more precisely specifies criteria for both the initial and ongoing assessment of whether investments should be classified as illiquid under the 15% illiquid investment limit by tying it to the same criteria used in assigning investments to other liquidity categories (including considering relevant market, trading, and investment-specific considerations, and market depth), which should reduce a firm's compliance burdens relative to the proposed rule while at the same time providing a more precise picture of how exposed to illiquid investments a given fund is.

Finally, while UITs were not subject to rule 22e-4 under the proposal, the final rule requires that the principal underwriter or depositor of a UIT will be required to determine, on or before the date of the initial deposit of portfolio securities into the UIT, that the portion of illiquid investments the UIT holds or will hold at the date of deposit that are assets is consistent with the redeemable nature of the securities it issues. This enhancement of the final rule over the proposal could benefit investors by reducing the likelihood that a UIT could be created that holds an excessive amount of illiquid securities, which in turn would reduce the liquidity risk associated with UITs.

c. Costs

One-Time and Ongoing Costs Associated With Program Establishment and Implementation

Funds will incur one-time costs to establish and implement a liquidity risk management program in compliance with rule 22e-4, as well as ongoing program-related costs. As discussed above, funds today employ a range of different practices, with varying levels of quality, for assessing the liquidity of their portfolio investments and managing fund liquidity risk.

Accordingly, funds whose practices regarding portfolio investment liquidity classification and liquidity risk assessment and management most closely align with the liquidity risk management program requirements would incur relatively lower costs to comply with rule 22e-4. Funds whose practices for classifying the liquidity of their portfolio investments and for assessing and managing liquidity risk are less thorough or not closely aligned with the rule, on the other hand, may incur relatively higher initial compliance costs.

Some commenters suggested that the estimates of costs in the rule proposal were significantly understated and that the true costs of compliance with the rule requirements would

likely exceed the expected benefits.¹⁰⁹² Another commenter suggested that costs were underestimated because other fund systems would also have to be modified to ensure compliance with the entirety of the requirements of the rule.¹⁰⁹³ For example, if funds are required to maintain or target a certain level of fund liquidity, then the trade order management system would have to be modified to ensure accurate monitoring of such limitations. We have revised the discussion of costs to both reflect new information on the potential costs of compliance and changes in the rule that are designed to lessen the potential costs. Specifically, we use estimates provided by commenters to approximate costs for each fund complex under the proposed rule and then qualitatively discuss how changes to the proposed rule affect these estimates. Because most changes to the final rule reduce requirements for some segment of funds relative to the proposal, the estimates below can generally be considered an upper bound on fund costs except where explicitly noted.

Staff estimates of the one-time costs in the proposal, which ranged from \$1.3 million to \$2.25 million per fund complex, were partly based on estimates from another Commission rulemaking.¹⁰⁹⁴ Some commenters expressed concern about the calculation of this estimate because it was based on assumptions driven by analysis performed with respect to money market fund reform.¹⁰⁹⁵ While some of the large scale system modifications required by rule 22e-4 will be similar to those required for money market funds due to regulatory reform, and we attempted

¹⁰⁹² See CFA Comment Letter; Cohen & Steers Comment Letter; Dechert Comment Letter; Dodge & Cox Comment Letter; Federated Comment Letter; FSR Comment Letter; ICI Comment Letter I; Invesco Comment Letter; LSTA Comment Letter; MFDF Comment Letter; SIFMA Comment Letter I; T. Rowe Comment Letter; Vanguard Comment Letter; Voya Comment Letter.

¹⁰⁹³ See Federated Comment Letter.

¹⁰⁹⁴ See Proposing Release, *supra* footnote 9, at n.702 and accompanying text.

¹⁰⁹⁵ See FSR Comment Letter; SIFMA Comment Letter I.

to adjust our estimates for differences between the two rules, one commenter suggested that the process of classifying portfolio assets was more akin to a fund's costs in analyzing the value of its assets.¹⁰⁹⁶ We acknowledge that could be an informative approach to estimating costs, but absent concrete estimates associated with that approach, which the commenter did not provide, we have updated our estimates based on the limited quantitative information available from commenters.¹⁰⁹⁷ One commenter estimated that there would be \$2 million in initial implementation costs and more than \$650,000 in annual recurring costs for automating a classification process that would have to manage 63,000 different portfolio positions.¹⁰⁹⁸ Another commenter estimated the costs of building a system to classify the liquidity of its investments, which is not currently commercially available, in the millions of dollars to manage their 44,000 different portfolio positions.¹⁰⁹⁹ We use the former as a basis for our analysis because it is comparable in magnitude to the latter.¹¹⁰⁰ Because there are likely to be economies of scale in developing the policies, procedures, and systems required to comply with rule 22e-4, we approximate the cost per fund complex by assuming fixed costs constitute 30% of the commenter's estimates, and extrapolate using the number of funds per complex to scale variable

¹⁰⁹⁶ See Dechert Comment Letter.

¹⁰⁹⁷ As in the proposal, the estimates assume that each fund would not bear all of the costs (particularly, the costs of systems modification) on an individual basis, but instead that these costs would likely be allocated among the multiple users of the systems, that is, each of the members of a fund complex. Accordingly, we expect that, in general, funds within large fund complexes would incur fewer costs on a per fund basis than funds within smaller fund complexes, due to economies of scale in allocating costs among a group of users.

¹⁰⁹⁸ See Invesco Comment Letter.

¹⁰⁹⁹ See T. Rowe Comment Letter.

¹¹⁰⁰ We estimate that there were 146 funds in the second commenter's fund complex as of December 31, 2015, which implies an estimated cost of approximately \$4 million using our estimation procedure, in line with the commenter's statement that its cost would be "in the millions." See *supra* footnote 1094 for discussion of the estimation procedure.

costs up or down.¹¹⁰¹ In addition, because the process of classifying assets under the proposal would likely constitute a majority of a fund's costs, we assume the classification process constitutes approximately 75% of a fund's cost of complying with proposed rule 22e-4. This method results in one-time costs for funds under the proposed rule that range from approximately \$0.8 million to \$10.2 million, that the average cost per fund complex is \$1 million, and the aggregate cost is approximately \$855 million. The estimated range of costs using this approach is wider than our approach in the proposal, but the estimated aggregate cost is lower than our initial estimate of \$1.3 billion. While these estimates would change if we varied our assumption that fixed costs comprise 30% of the commenter's estimate—for example, increasing this percentage would compress the range of costs and the aggregate may increase or decrease—they are of the same order of magnitude as our estimates in the proposal.

These estimated one-time costs are attributable to the following activities, as applicable to each of the funds within the complex: (i) developing policies and procedures relating to each of the required program elements,¹¹⁰² and the related recordkeeping requirements of the rule; (ii)

¹¹⁰¹ We use CRSP U.S. Mutual Fund Database to obtain the number of funds for each complex. As of December 31, 2015, there were 7551 mutual funds (excluding money market funds and annuities), 1484 ETFs (excluding non-40-act ETFs, ETNs, and Commodity ETFs), and 847 fund complexes (334 of them with only one fund). The commenter, Invesco, consisted of 87 funds as of that date, and we assume the fixed cost component of their estimate is \$0.6 million (30% of \$2 million). The remaining \$1.4 million is assumed to be a variable cost that scales linearly with the number of funds. To arrive at a total cost of 22e-4, each of these estimates is scaled so that the classification process constitutes 75% of the total costs of proposed rule 22e-4.

¹¹⁰² Specifically, a fund would be required, where applicable, to establish policies and procedures relating to: (i) assessment, management, and periodic review of the fund's liquidity risk; (ii) classification of the liquidity of each of the fund's portfolio investments, as well as at-least-monthly reviews of the fund's liquidity classifications; (iii) the requirements to determine and periodically review a highly liquid investment minimum, and to adopt and implement policies and procedures for responding to a shortfall of the fund's highly liquid investments below its highly liquid investment minimum; (iv) the requirement to limit the fund's acquisition of illiquid investments over 15% of the fund's net assets; and (v) for funds that engage in, or reserve the right to engage in, redemptions in kind, the requirement to establish policies and procedures regarding how it will engage in such redemptions in kind. The final rule also provides for a tailored program for ETFs that redeem in kind, excluding them from the classification and highly liquid investment minimum requirements, but requiring them to consider additional factors as part of their

planning, coding, testing, and installing any system modifications relating to each of the required program elements; (iii) integrating and implementing policies and procedures relating to each of the required program elements (including classifying the liquidity of each of the fund's portfolio investments pursuant to rule 22e-4(b)(1)(ii)), as well as the recordkeeping requirements of the rule; (iv) preparing training materials and administering training sessions for staff in affected areas; and (v) costs associated with educating the fund's board and obtaining approval of the program. These activities are likely to cut across many different functional groups within a fund or fund complex, including legal, compliance, risk, portfolio management, accounting, and technology staff. To the extent that some of the systems needed to support the required program elements are developed by third parties, fund complexes may be able to implement their liquidity risk management programs for less than our estimated cost of developing these programs themselves, but the final rule emphasizes that it is ultimately each fund's responsibility to classify its positions, so these potential cost reductions may be limited. For example, we understand that third parties have already developed programs that include certain market, trading, and investment-specific factors which could be useful in classifying the liquidity of portfolio investments, and are currently available for purchase.¹¹⁰³

We have also revised our estimates of the ongoing costs of complying with rule 22e-4 using the same approach and based on the same commenter's estimate as above for one-time

liquidity risk assessment and management that reflect potential liquidity-related concerns that could arise from the structure and operation of ETFs. The final rule also provides an exclusion from the highly-liquid investment minimum requirement for funds that primarily hold highly liquid investments. The rule also provides for board oversight of the liquidity risk management program.

¹¹⁰³ See *supra* footnote 323 and accompanying text (discussing Commission guidance on a fund's use of third-party service providers to obtain data to inform or supplement its consideration of the liquidity classification factors). We understand, based on staff outreach, that annual costs to subscribe to the liquidity classification services provided by third-party data and analytics providers currently range from \$50,000 - \$500,000.

costs. While our analysis in the proposal assumed ongoing costs ranged from 10% to 25% of the one-time costs resulting from the rule, we've reduced the low end of the range to 5% to reflect changes from the Proposing Release, discussed below, that should lower some funds' compliance burdens, and increased the high end of the range to 32.5% to reflect the commenter's estimate that ongoing costs for their fund under the proposed rule would be \$0.65 million (compared to one-time costs of \$2 million). We again extrapolate from the commenter's estimate as above to arrive at a minimum and maximum cost estimate for each fund, which implies a range of ongoing costs across all funds of \$40,000 to \$3.3 million per fund complex. These costs are attributable to the following activities, as applicable to each of the funds within the complex: (i) classification of the liquidity of each of the fund's portfolio investments, as well as at-least-monthly reviews of the fund's liquidity classifications (rule 22e-4(b)(1)(ii)); (ii) periodic review of the fund's liquidity risk (rule 22e-4(b)(1)(i)); (iii) periodic review of the adequacy of the fund's highly liquid investment minimum (rule 22e-4(b)(1)(iii)(A)(2)); (iv) systems maintenance; (v) additional staff training; (vi) approval, annual review, and general oversight by the board of the fund's liquidity risk management program (rule 22e-4(b)(2)); and (viii) recordkeeping relating to the fund's liquidity risk management program (rule 22e-4(b)(3)).¹¹⁰⁴ Relative to the proposed rule, the final rule reduces the responsibilities of a fund's board, which is not required to approve the fund's highly liquid investment minimum or material changes to the fund's liquidity risk management program, which should reduce the board-related costs embedded in the above estimates of rule 22e-4's one-time and ongoing costs.

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As discussed in greater detail below, we anticipate that, depending on the personnel (and/or third-party service providers) involved in the activities associated with administering a liquidity risk management program, certain of the estimated ongoing costs associated with these activities could be borne by the fund, and others could be borne by the adviser.

The original classification scheme would have mandated significant micro-level analysis of instruments not currently conducted by fund advisers according to many commenters.¹¹⁰⁵ Such an analysis would have required entirely new systems for many fund complexes and would have required funds to incur significant expenses (especially for smaller fund complexes).¹¹⁰⁶ The new classification system lowers the potential costs of compliance with the liquidity classification requirement by (i) reducing the number of classification categories reduced from six to four, (ii) only requiring “days-to-cash” estimates out to 7 days, (iii) allowing funds to generally classify based on asset class (subject to an exception process), (iv) changing the process for considering position size to reduce complexity, and (v) simplifying the classification factors to be considered into a single requirement that funds consider market, trading, and investment-specific data when classifying an investment. As a whole, these changes should lower the potential costs of compliance with the classification requirement relative to the proposal estimates above without significantly reducing the potential benefits of the requirement.

Specifically with respect to position size, commenters argued that evaluating “days-to-cash” was inherently biased against large funds and could lead to “plain vanilla” funds that generally invest in only highly-liquid securities (*e.g.*, S&P 500 funds) being classified as highly illiquid if they manage a large amount of assets.¹¹⁰⁷ The rule now only requires a fund to determine whether trading varying portions of a position in a particular portfolio investment or asset class, in sizes that the fund reasonably anticipates trading, is reasonably expected to significantly affect its liquidity. This change should prevent large “plain vanilla” funds from

¹¹⁰⁵ See Credit Suisse Comment Letter; Dechert Comment Letter; Federated Comment Letter; Fidelity Comment Letter; Oppenheimer Comment Letter; SIFMA Comment Letter I; Wellington Comment Letter.

¹¹⁰⁶ See Dechert Comment Letter; ICI Comment Letter I; SIFMA Comment Letter I; T. Rowe Comment Letter.

¹¹⁰⁷ See Dodge & Cox Comment Letter; Oppenheimer Comment Letter; Vanguard Comment Letter; ICI Comment Letter I; ICI Comment Letter II; Invesco Comment Letter.

appearing to be very illiquid under the classification scheme while still maintaining the idea that position size is an important consideration in the evaluation of liquidity. Relative to the proposed rule, this should reduce the costs associated with determining how position size affects the number of days required to liquidate an investment and eliminate the cost of classifying separate portions of a position into separate liquidity buckets.

The classification process has also been revised in response to commenter concerns about the need to evaluate whether an investment can be sold for cash without materially affecting the security's price, which investors could interpret as an indication that they can redeem out of funds at a known or protected NAV.¹¹⁰⁸ One commenter expressed concern that if investors were given estimates of liquidity that are speculative or stale, or both, which might fail to predict liquidity with accuracy during periods of market stress, then funds could be potentially subject to significant litigation costs.¹¹⁰⁹ The value impact component of the rule has been modified so that determinations of market impact can be based on a reasonable expectation that an investment can be converted to cash (or in some cases, sold or disposed of) without the conversion (or in some cases, sale or disposition) significantly changing the market value, rather than a price "that does not materially affect the value of that asset immediately prior to sale." This modification in the definition should relieve funds of the need to develop precise security-by-security expectations of forward looking liquidity while still emphasizing the need to consider the potential market impact of buying or selling an investment, reducing compliance costs relative to the proposed rule.

Commenters also expressed concern about the use of third-party vendors in the process of

¹¹⁰⁸ See ICI Comment Letter II.

¹¹⁰⁹ See Dodge & Cox Comment Letter.

liquidity classification.¹¹¹⁰ If only a few vendors were able to provide the necessary data, such data would likely cause significant expenses for the funds, and those expenses would likely be passed on, at least in part, to fund investors through higher fees. Another commenter suggested that the cost of third-party liquidity data should be included in any estimate of the potential costs of the classification system because of the strong likelihood that all funds would need to subscribe to a third-party vendor to ensure compliance with the rule.¹¹¹¹ As discussed in the proposal, we believe outsourcing program functions to vendors should, if anything, reduce compliance costs, and we noted that liquidity classification services already exist.¹¹¹² In addition, our updated estimate of costs above is based on a large investment manager's estimate of constructing an internal system from scratch, so we would expect the cost of a vendor-based solution, which would be partially amortized across all of its clients, to be lower. The changes made to the classification system from the proposal could also lessen the costs associated with third-party vendors relative to the proposed rule. In particular, to the extent that requiring less precision via fewer classification categories and shorter time horizons, allowing funds to generally classify according to asset class (subject to an exception process), and requiring a simpler position size evaluation criterion reduce the scope and intensity of the investment classification process, funds may not rely as much on vendors to comply with the rule, and vendors themselves may experience reduced costs in developing programs, leading to lower prices if they pass on some of the savings to funds.

If all funds use a small number of third-party vendors, there could be other indirect, but

¹¹¹⁰ See Dechert Comment Letter; Federated Comment Letter; ICI Comment Letter I; ICI Comment Letter II; MFDF Comment Letter; Nuveen Comment Letter; SIFMA Comment Letter I; T. Rowe Comment Letter; Wells Fargo Comment Letter.

¹¹¹¹ See Interactive Data Comment Letter.

¹¹¹² See Proposing Release, *supra* footnote 9, at n.705 and accompanying text.

potentially large, costs. According to one commenter, the vendors could become de facto liquidity “rating agencies” and their “upgrades” and “downgrades” of asset liquidity could have systemic effects on the market.¹¹¹³ For example, if a vendor were to remove a widely-held investment from the highly liquid investment category, then many funds could simultaneously attempt to sell that investment, which could harm both fund investors and the wider market. Given the data limitations and difficulties in estimating liquidity for many less liquid investments, that potential effect might be driven by error-prone modeling instead of true changes in liquidity. We emphasize above that while third-party products can serve as a useful input to the classification process, it is the fund’s responsibility to determine the liquidity of each investment, which should lessen the potential for systemic issues by reducing fund reliance on third-party vendors and allowing more of the necessary liquidity analysis to be performed within each fund complex.¹¹¹⁴

Several additional components of the final rule will affect costs relative to the proposal. First, by excluding any fund that primarily holds assets that are highly liquid investments from the requirement to have a highly liquid investment minimum, the final rule avoids imposing any potential costs related to the minimum on some funds that would benefit less from having a minimum. It is possible that some funds that do not qualify as primarily highly liquid funds will incur the costs of establishing a minimum without a significant benefit. Second, whereas funds may currently use back-office operations to limit their acquisition of illiquid assets under existing Commission guidelines, the final rule’s enhanced illiquid investment standard may require funds to incur direct costs associated with a shift of these operations to other business functions (we

¹¹¹³ See ICI Comment Letter II.

¹¹¹⁴ See *supra* section III.C.1.b. (providing guidance on the appropriate use of data vendors).

also discuss indirect costs associated with the enhanced illiquid investment limit below).¹¹¹⁵

Third, the final rule does not require In-Kind ETFs to establish a highly liquid investment minimum or classify the liquidity of their portfolios, which will reduce their costs relative to other funds, but it also requires them—as it does all ETFs—to consider several additional factors as part of their liquidity risk programs, which may increase their implementation costs. Finally, principal underwriters or depositors of UITs, which had no liquidity risk requirements under the proposed rule, will now have to incur a one-time cost on or before the date of the initial deposit of the portfolio securities into the UITs to assess whether the amount of illiquid investments they expect the UITs to hold is compatible with the redeemable nature of the securities they issue. This cost should be comparable in magnitude to incurring a fraction of the ongoing costs of an open-ended fund under rule 22e-4 because it involves an analysis that is similar to complying with the rule’s 15% illiquid investment limit without having to establish all of the systems and processes that are required to perform that task on a continuing basis. Assuming that this activity accounts for 20% of an open-ended fund’s ongoing costs, we estimate that it would cost a UIT \$8,000 to \$52,000, and note that it will only be incurred by UITs that are launched after the rule’s compliance date.¹¹¹⁶ UITs are already required to consider which of their restricted securities are illiquid, so this estimate should be considered an upper bound on the costs imposed on UITs by the rule. Finally, the rule’s provision requiring board oversight when a fund’s holding of illiquid assets exceed 15% of its net assets may impose additional costs on the fund to

¹¹¹⁵ See *supra* section III.C.4.a.

¹¹¹⁶ These figures are based on the same comment letter used to estimate one-time and ongoing costs for open-ended funds. We assume the costs associated with launching a UIT under rule 22e-4 are equivalent to 20% of the ongoing costs of a one fund complex. Under the assumptions above that ongoing costs for open-ended funds are 5% to 32.5% of their initial costs, fund complexes with one fund have estimated ongoing costs of approximately \$40,000 to \$260,000. Multiplying that range by 20% produces the UIT estimate.

hold a special board meeting, including the cost of preparing materials for the board's deliberation, the cost of board members' time, as well as the cost of consultations with outside counsel.

Depending on the personnel (and/or third-party service providers) involved with respect to the activities associated with establishing and implementing a liquidity risk management program, certain of the estimated one-time costs could be borne by the fund, and others could be borne by the fund's adviser or other service providers. This cost allocation would be dependent on the facts and circumstances of a particular fund's liquidity risk management program, and thus we cannot specify the extent to which the estimated costs would typically be allocated to the fund as opposed to the adviser. Estimated costs that are allocated to the fund would likely be borne by fund shareholders in the form of fund operating expenses.

Certain elements of the program requirement may entail marked variability in related compliance costs, depending on a fund's particular circumstances and sources of potential liquidity risk. The process of classifying the liquidity of each of a fund's portfolio investments could give rise to varying costs depending on the fund's particular investment strategy. For example, a U.S. large cap equity fund would likely incur relatively few costs to obtain the data necessary to classify its portfolio positions, specifically given that, relative to the proposed rule, the final rule allows such a fund to generally classify its positions based on asset classes (subject to an exception process). On the other hand, funds that hold investments for which relevant market, trading, and other investment-specific data is less readily available, for which a general asset-class-based classification is more difficult to apply, or funds that require more exceptions to their asset-class-based classification would incur relatively greater costs associated with the classification of their portfolio positions' liquidity. In addition, funds with multiple sub-advisers

may incur relatively more costs to coordinate the process of classifying position liquidity as well as monitoring whether the fund is compliant with its highly liquid investment minimum and the 15% illiquid investment limit.

Certain factors that the rule's guidance suggests a fund should consider in assessing its liquidity risk also could entail relatively greater costs, depending on the fund's circumstances. For instance, a fund with a relatively short operating history could incur greater costs in assessing the fund's cash flow projections than a similarly situated fund with a relatively long operating history. This is because the newer fund could find it appropriate to assess redemption activity in similar funds during normal and stressed periods (to predict its future cash flow patterns), which could entail additional costs to gather and analyze relevant data about these comparison funds. Also, a fund whose shares are held largely through omnibus accounts may wish to periodically request shareholder information from financial intermediaries in order to determine how the fund's ownership concentration may affect its cash flow projections. These data requests, and related analyses, could cause a fund to incur costs that another fund, whose shares are largely held directly, would not. A fund that deems it appropriate to establish and implement additional liquidity risk management policies and procedures beyond those specifically required under the rule also would incur additional related costs. While we recognize that, as described above, the costs to establish and implement a liquidity risk management program in compliance with rule 22e-4 will depend to some degree on the level of liquidity risk facing the fund, we are unable to quantify the various ways in which a fund's individual risks and circumstances could affect the costs associated with establishing a liquidity risk management program.

Commenters suggested that the proposed three-day liquid asset minimum requirement

could have had a number of unintended consequences. As discussed above, if third-party vendors become de facto “rating agencies” for liquidity, then a liquidity minimum could force many funds to sell the same investments simultaneously after a liquidity “downgrade,” which could have a systemic impact on funds and the overall market.¹¹¹⁷ Similarly, if a fund were forced into predictable trading behavior during a market downturn because of the highly liquid investment minimum requirement, the liquidity and performance of that fund would be negatively impacted.¹¹¹⁸ It is possible that the proposed three-day liquid asset minimum requirements could have created these types of unintended consequences by prohibiting a fund from acquiring less liquid assets if it was below its three-day liquid asset minimum, but the final rule does not include this prohibition. Instead, as discussed above, a fund is only required to report to its board and, possibly, the Commission when it is below its highly liquid investment minimum. This requirement should provide fund management the flexibility to avoid forced, predictable trading behavior while maintaining the emphasis on effective liquidity risk management the minimum is designed to provide. While fund liquidity may vary more under this approach, the reporting requirements surrounding any shortfall, including a requirement to provide the fund’s board with an explanation of how the fund plans to restore its minimum if a shortfall lasts more than 7 consecutive calendar days, should help provide oversight to prevent a fund from continually failing to meet its liquidity minimum. As a whole, this approach should result in lower costs for funds compared to the proposed three-day liquid asset minimum and, because we anticipate that lengthy breaches of the minimum will be relatively rare, it should not significantly decrease the benefits of having a highly liquid investment minimum.

¹¹¹⁷ ICI Comment Letter II.

¹¹¹⁸ ICI Comment Letter II.

One commenter suggested that investor choice could be negatively impacted because of the implementation and on-going costs of the liquidity risk management program.¹¹¹⁹ The commenter asserted that the costs could overwhelm small fund complexes and force them to either cease operations or consolidate with a larger complex.¹¹²⁰ Most of the changes made to the rule since its proposal—exclusions for funds that primarily hold assets that are highly liquid investments and In-Kind ETFs, a reduction in the number of investment classification categories, and the ability to generally classify investments based on asset classes (subject to an exception process)—should decrease the estimated implementation and on-going costs compared to the proposal. Yet it remains possible that some fund complexes will still find the costs burdensome. While investor choice may be harmed if a fund is closed because the costs of the rule are burdensome, remaining funds will be better positioned to avoid the negative consequences of inadequate liquidity management if that fund exited because it was unable to provide a minimum acceptable baseline of liquidity. To the extent that there are funds that are currently able to provide effective liquidity risk management, but would be forced to cease operations because of the costs of complying with the rule (even after changes from the proposal that increase flexibility and decrease implementation and on-going costs), investor choice may be negatively affected.

A fund may incur costs if it reallocates its portfolio to correspond with its initial or subsequently modified highly liquid investment minimum, or if the rule's definition of an illiquid investment results in the fund holding more than 15% of its net assets in assets that are illiquid investments. While we are unable to anticipate how many funds may reallocate their portfolios

¹¹¹⁹ Charles Schwab Comment Letter.

¹¹²⁰ *Id.*

for these two reasons, or the extent of such reallocation by any fund that does so, we anticipate that the transaction-related costs of any such reallocation will not be significant for most funds. This is because some funds may not need to reallocate their portfolios at all to correspond with their highly liquid investment minimum or the 15% illiquid investment limit, and those that do so would be able to gradually adjust their portfolios in order to buy and sell portfolio positions during times that are financially advantageous given the delayed compliance date. Thus, while a fund may reallocate its portfolio to comply with its highly liquid investment minimum and the 15% illiquid investment limit by the time of the compliance date, a fund would not be required to conduct transactions in portfolio investments in any particular timeframe prior to the compliance date. If a fund wishes to reallocate its portfolio by the compliance date, we anticipate that the compliance date would provide sufficient time to do so with relatively few associated transaction costs. Along with the transaction-related costs associated with any portfolio reallocation, we recognize that this reallocation in turn could affect the performance and/or risk profiles of funds that modify their composition, which in turn could result in costs associated with decreased investment options available to investors and any changes to the market for relatively less liquid investments; these costs are discussed below. Finally, it is worth noting that, because the rule excludes both In-Kind ETFs and funds that primarily hold assets that are highly liquid investments from the requirement of having a highly liquid investment minimum, these funds will not incur any of the costs associated with transactions, reduced fund performance, or altered risk profiles associated with a minimum, though they will still incur these costs as they apply to the rule's 15% illiquid investment limit.

Potential for Decreased Investment Options and Adverse Effects

We recognize that the rule requires a fund to determine the liquidity profile of its current

portfolio and evaluate its potential liquidity needs, which could result in a fund concluding that its current portfolio lacks sufficient liquidity. This could lead a fund to modify its portfolio composition to meet its appropriate highly liquid investment minimum (*e.g.*, one commenter stated that funds may decrease their holdings of long-term municipal bonds) or to comply with the more specific 15% illiquid investment limit.¹¹²¹ The rule could therefore result in certain funds increasing their investments in relatively more liquid investments or altering the way in which their portfolios are managed, which in turn could affect the performance, tracking error, and/or risk profiles of these funds.¹¹²² This is most likely to affect funds that currently hold investments with relatively lower liquidity. Such modifications to funds' portfolio compositions could in turn decrease certain investment options available to investors or reduce investor returns. However, because these portfolio composition shifts are most likely to occur if a fund needs to adjust its existing liquidity level to comply with the rule, we anticipate that the potential for decreased yield is most likely to affect funds currently holding portfolios whose liquidity levels have the potential to create redemption-related liquidity risk for fund investors. Thus, the potential for decreased investment options for certain investors, and any related decrease in investment yield, has the potential offsetting benefit of decreased liquidity risk in the funds in which these investors hold shares. However, there could be other reasons funds may choose to invest in more liquid investments as a result of the rule even if this reallocation is not required, including the possibility that they do not want to appear less liquid than their peer funds in their publicly disclosed liquidity profile, or because increased disclosure requirements regarding the

¹¹²¹ GFOA Comment Letter.

¹¹²² *See, e.g., supra* footnote 767 (discussing how index funds that use full replication strategies might need to move towards other techniques for tracking an index if full replication requires them to exceed the 15% illiquid asset limit).

timing of a fund's redemption payments may result in funds holding more liquid investments.¹¹²³

We cannot quantify the number of funds that would need to significantly modify their portfolios' risk profile as a result of the rule because we lack the information necessary to provide a reasonable estimate. Such an estimate would depend on the number of funds that might need to modify their current portfolio composition as a result of the rule, as well as the availability of relatively liquid investments that can act as adequate substitutes to existing investments for those affected funds. We are unable to quantify the total potential costs discussed in this section because: (1) we cannot anticipate the highly liquid investment minimum that each fund would determine to be appropriate based on its liquidity risk or the extent to which fund holdings exceed the rule's more specific 15% illiquid investment limit relative to the current 15% guideline; (2) we cannot determine what relatively more liquid investments funds would purchase as substitutes; (3) we are unable to estimate the resulting changes to funds' yields and risk profiles, nor how investors would react to these changes. In-Kind ETFs and funds that primarily hold assets that are highly liquid investments will not be subject to the highly liquid investment minimum, so this may reduce the aggregate costs associated with decreased investment options relative to the proposed rule. Commenters did not specifically object to our assessment of the rule's impact on investment options in the proposed rule.

Market for Relatively Less Liquid Investments

As discussed above, the rule could result in certain funds increasing their investments in relatively more liquid investments, which would effectively mean that these funds would decrease their investments in relatively less liquid investments. If funds decrease their investments in relatively less liquid investments, the market for those investments could become

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See infra section IV.c.2.a (discussing the effects of the rule's disclosure requirements).

even less liquid. This could discourage new issuances of similar investments and decrease the liquidity of relatively less liquid investments that are still outstanding. The impact of decreased investment by funds in relatively less liquid markets will depend on how much current investment in those markets is driven by the funds, which varies between markets. Further, these market effects could be partially offset if other opportunistic investors with greater capacity to hold less liquid investments are attracted to the market by any lower prices for these investments that result if funds decrease their holdings of less liquid investments.¹¹²⁴ In addition, if the rule leads funds to better assess the liquidity risk associated with certain investments, any decrease in the prices of these investments could reflect more efficient pricing of the investments (that is, risk would be better reflected in asset prices than it is currently). Because funds currently are not required to report or disclose information concerning the liquidity of their investments, and because we cannot anticipate the highly liquid investment minimum that each fund would determine to be appropriate based on its liquidity risk or the extent to which the more specific 15% illiquid investment limit will apply to current fund holdings, it is difficult to predict the extent to which the rule could lead funds to modify their portfolio holdings, or whether such modifications would discourage the issuance of certain investment. As a result, we cannot quantify the potential costs discussed in this section. Commenters did not specifically object to our assessment of the costs related to decreased investment in illiquid assets in the proposed rule.

d. Effects on Efficiency, Competition, and Capital Formation

The liquidity risk management program requirement would require a fund to assess its

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Relatively less liquid investments have a higher expected return compared to relatively more liquid investments, thereby compensating longer-term investors for holding relatively less liquid investments. See Yakov Amihud & Haim Mendelson, *Asset Pricing and the Bid-Ask Spread*, 17 J. FIN. ECON. 223 (1986), available at <http://pages.stern.nyu.edu/~lpederse/courses/LAP/papers/TransactionCosts/AmihudMendelson86.pdf>.

liquidity risk and to determine its highly liquid investment minimum based on this risk assessment. For funds that do not already engage in liquidity risk management practices that meet the rule's requirements, the requirements should improve the alignment between fund portfolio liquidity and fund liquidity needs. This improved alignment could enhance funds' ability to meet redemptions in a manner that mitigates potential dilution of shareholders' interests, and thus this improved alignment could be viewed as increasing efficiency to the extent that dilution is perceived as a drag on the ability of a fund's NAV to reflect the performance of its portfolio. Additionally, the requirement for each fund to classify the liquidity of its portfolio investments and publicly report the aggregated percentage of its portfolio assigned to each of the four classifications categories could increase allocative efficiency by assisting investors in making investment choices that better match their risk tolerances. However, this potential efficiency gain will only hold to the extent that these portfolio-level classification aggregates, which are based on non-public subjective assessments of investment liquidity, are comparable across funds. Furthermore, this potential efficiency gain will only be achieved if this classification sufficiently contrasts the tradeoff between portfolio liquidity and performance across funds.

By enhancing funds' liquidity risk assessment and risk management, the program requirement also could promote pricing efficiency in the sense that it could decrease the likelihood that a fund would be forced to sell portfolio investments under unfavorable circumstances in order to meet redemptions, potentially creating significant negative price pressure on those investments. If a fund's asset sales were to cause temporary changes in market prices unrelated to an investment's fundamentals, this could create a temporary pricing inefficiency. By decreasing the likelihood that these types of price movements would occur, the

program requirement could decrease pricing inefficiency. However, the program requirement could negatively affect the efficient pricing of investments with lower liquidity if it indirectly discourages funds from investing in them (for example, if a fund were to decrease its holdings in investments that have lower liquidity if it determines, as a result of the fund's liquidity risk assessment, that its appropriate highly liquid investment minimum or the more specific 15% illiquid investment limit do not correspond with the fund's current portfolio composition). But as discussed above, this market effect could be partially offset if other investors are incentivized to buy relatively less liquid investments on account of any lower prices for these investments that result if funds decrease their holdings of these investments.¹¹²⁵ Alternatively, any price decreases experienced as a result of decreased mutual fund investment could be considered efficient price adjustments given the reduction in liquidity of the investments.

If the liquidity risk management program requirement results in a material decrease in funds' investment in relatively less liquid investments, competition for these investments would initially be negatively affected. Under this scenario, the relatively less liquid investments in which funds formerly would have invested may become less liquid, since the number of current or potential market participants would be reduced. However, because this reduction in demand and liquidity results in larger illiquidity discounts and higher expected returns, some investors might become willing to invest in these assets, which in turn would partially offset the initial reduction in competition. As a corollary, if the liquidity risk management program requirement results in a material increase in funds' investment in highly liquid investments, competition for these investments would be positively affected. However, as funds increase their investments, the liquidity of those investments should increase and their liquidity premium decrease, which in

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See supra section IV.C.1.c.

turn could lead some investors to reduce their demand for these investments, partially offsetting the initial increase in competition. Relative to the proposal, the competitive effects of fund demand for highly liquid investments relative to lower liquidity investments should, if anything, be reduced because the rule only requires a fund to consider stressed conditions that are reasonably foreseeable in determining its minimum.

The size of a fund, or the family of funds to which a fund belongs, could have certain competitive effects with respect to the fund's implementation of its liquidity risk management program. If there are economies of scale in creating and administering multiple liquidity risk management programs, funds in large families would have a competitive advantage. For a fund in a smaller complex, however, a greater portion of the fund's (and/or adviser's¹¹²⁶) resources may be needed to create and administer a liquidity risk management program, which may increase barriers to entry in the fund industry, and lead to an adverse effect on competition. The size of a fund family also could produce competitive advantages or disadvantages with respect to a fund's use of products developed by third parties to assist in classifying the liquidity of their portfolio investments, or to assess the fund's liquidity risk. Funds in a large complex also could receive relatively more favorable pricing for third-party liquidity risk management tools, if the fund complex were to purchase discounted bulk services from the developer or receive relationship-based pricing discounts. To the extent that they choose to use liquidity risk management tools such as committed lines of credit and interfund lending,¹¹²⁷ funds in larger complexes likewise could receive more favorable rates on committed lines of credit than funds in smaller complexes, and could have opportunities to establish interfund lending arrangements

¹¹²⁶ See *supra* footnote 446 and accompanying text.

¹¹²⁷ See *supra* footnote 258 and accompanying text (discussing and providing guidance on the use of these tools).

more easily than funds in smaller complexes.

Any changes in certain investments' or asset classes' liquidity that could indirectly result from the liquidity risk management program requirement (for example, as discussed above, if the number of buyers and sellers for certain investments becomes significantly reduced as a result of the program requirement) could also affect capital formation among issuers of these investments. Because lower asset liquidity implies higher illiquidity premiums and larger asset price discounts some firms and other issuers of securities could be discouraged from issuing new securities in asset classes that are associated with lower liquidity. If changes in liquidity are not equal across all asset classes, firms and other entities may begin to shift their capital structure (*e.g.*, begin to issue equity instead of debt) or to change the terms of certain securities that they issue in order to increase their liquidity (*e.g.*, by standardizing the terms of certain debt securities, or modifying the securities' terms to promote electronic trading).¹¹²⁸

Commenters did not specifically object to our assessment of the proposed rule's effects on efficiency, competition, and capital formation. With the exception of the potential efficiency changes due to modifications reflected in the adoption of a highly liquid investment minimum and the more specific 15% illiquid investment limit discussed above, our assessment of the final rule's effects largely corresponds with those of the proposed rule.

e. Reasonable Alternatives

The Commission considered various alternatives to the individual elements of rule 22e-4. Those alternatives are outlined above in the sections discussing the rule elements.¹¹²⁹ The following discussion addresses economically significant alternatives to rule 22e-4, which involve

¹¹²⁸ See GFOA Comment Letter (discussing these types of effects on municipal bond issuers).

¹¹²⁹ See *supra* sections III.A.3, III.B.1.b, III.B.2.j, III.B.3.b, III.C.1.c, III.C.1.d, III.C.2.a, III.C.2.b, III.C.3.a, III.C.3.a, III.C.6.a, III.C.6.b, II.C.5.c, III.D.4, and III.E.

broader issues than the more granular alternatives to the individual rule elements discussed above.

Liquidity Risk Management Program and Scope

The Commission considered, but ultimately decided against, excluding certain types of funds from rule 22e-4.¹¹³⁰ For example, the rule could have carved out funds with investment strategies that historically have entailed relatively little liquidity risk, or funds with relatively low asset levels. We are not excluding any subset of open-end funds, other than money market funds, from the scope of the rule, although we have tailored the rule for certain kinds of investment companies that present different liquidity risks (In-Kind ETFs, funds that primarily hold assets that are highly liquid investments, and UITs). Some funds with investment strategies that historically have involved little liquidity risk invest in assets that have lower liquidity, or in more liquid assets that can experience episodes of lower liquidity.¹¹³¹ To the extent that these types of investments create potential liquidity risk for a fund, excluding funds with investment strategies that have historically involved little liquidity risk could expose investors to more potential liquidity risk than they would face under the rule. Furthermore, investors in small funds could suffer from insufficient liquidity risk management just as investors in larger funds could. Indeed, staff analysis suggests that funds with relatively low total assets can experience greater flow volatility, including more volatility in unexpected flows, than funds with higher assets, which could indicate increased liquidity risk.¹¹³² The program requirement permits a fund to customize and calibrate its liquidity risk management program to reflect the liquidity risks that

¹¹³⁰ See section III.A.2 for more detailed discussion of rule 22e-4's scope.

¹¹³¹ See Proposing Release, *supra* footnote 9, at n.123-124 (discussing liquidity issues in microcap stocks as well as treasury bonds during the "Flash Crash").

¹¹³² DERA Study, *supra* footnote 95, at 16-24. See *infra* footnote 1159 and accompanying paragraph regarding comments on small funds.

it typically faces (and that it could face in stressed market conditions). This flexibility is meant to result in programs whose scope, and related costs and burdens beyond the fixed cost of establishing a minimum liquidity risk management program, are appropriate to manage the actual liquidity risks facing a particular fund. For example, funds that primarily hold assets that are highly liquid investments are not required to adopt a highly liquid investment minimum because any benefits associated with this requirement as applied to these funds are less likely to justify the associated burdens.

Instead of adopting rule 22e-4, the Commission could issue guidance surrounding the assessment and management of liquidity risk, which would give funds more flexibility in managing liquidity risk and could reduce costs relative to the requirements of the rule. However, on account of the significant diversity in liquidity risk management practices that we have observed in the fund industry, we believe that the need exists for an enhanced comprehensive baseline requirement instead of only guidance for fund liquidity risk management.

Commenters suggested the rule could have also taken a purely principles-based approach instead of a prescriptive approach.¹¹³³ The final rule is not a purely prescriptive rule; while it does specify certain standards, it provides funds with a substantial degree of flexibility in implementing those standards. That said, a purely principles-based approach that specified few or no requirements could give funds more flexibility in tailoring risk management programs to their needs and could reduce compliance costs, but it would be less certain to create a comprehensive baseline for fund liquidity risk management, which in turn would diminish the

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AIMA Comment Letter; CFA Comment Letter; Cohen & Steers Comment Letter; Dodge & Cox Comment Letter; Eaton Vance Comment Letter I; FSR Comment Letter; ICI Comment Letter I; ICI Comment Letter III; LSTA Comment Letter; MFDF Comment Letter; Nuveen Comment Letter; NYC Bar Comment Letter; Oppenheimer Comment Letter; State Street Comment Letter; Vanguard Comment Letter; Wellington Comment Letter; Wells Fargo Comment Letter; Dechert Comment Letter.

comparability (and thus the value) of information reported to the Commission and to the public about funds' liquidity. Under a purely principles-based approach, an investor with investments in multiple funds would be aware that those funds are all generally required to manage liquidity risk, but may not have sufficient clarity about how each of the funds may have chosen to interpret and implement general principles so as to permit the investor to understand how this variation across funds affects the liquidity risk to which the investor is exposed. Finally, funds are not prohibited from developing or maintaining their own, tailored risk management programs to the extent that they are supplemental to the baseline that the Commission's program requires.

The Commission considered proposing liquidity requirements similar to those imposed on money market funds—that is, the requirement to hold a specified minimum level of highly liquid investment holdings, and the ability to impose redemption fees and gates.¹¹³⁴ The requirements imposed on money market funds, and the tools available to these funds to manage heavy redemptions, are specifically tailored to the assets held by money market funds and the behavior of money market fund investors.¹¹³⁵ Imposing similar regulatory requirements on funds that are not money market funds would ignore significant differences between money market funds and other funds. We discuss the costs and benefits of requiring funds to hold a specified minimum level of highly liquid investments below (similar to the portfolio liquidity requirements applicable to money market funds). With respect to redemption fees, funds are already permitted to use them under existing regulations (up to a maximum fee of two percent), although those fees are largely used by certain funds to recoup costs incurred as a result of excessive short-term trading of mutual fund shares, rather than mitigating dilution arising from shareholder

¹¹³⁴ See *supra* footnotes 153-155 and accompanying text.

¹¹³⁵ See 2014 Money Market Fund Reform Adopting Release, *supra* footnote 43, at section II.

transaction activity generally, and are viewed as unpopular with investors and intermediaries. Redemption gates would allow funds to limit the potential dilution shareholders face in circumstances where they face extreme redemptions, but they would also impose constraints on shareholders' access to their assets in those situations, and commenters were not in favor of extending rule 22e-3 to permit funds to make broader use of suspensions of redemptions.¹¹³⁶ In addition, funds that are not money market funds have not demonstrated the same risk of significant redemptions during times of market stress that money market funds may face and which redemption gates are meant to prevent, implying that the benefits of gates are less applicable to funds that are not money market funds.¹¹³⁷

Classifying Portfolio Investment Liquidity

The Commission considered multiple alternatives to the rule's requirement that funds classify the liquidity of their portfolio investments, which establishes one component of a uniform baseline for fund liquidity risk management. As discussed above, commenters raised three primary structural alternatives to the proposed classification requirement: (i) a "principles-based" liquidity classification approach, where each fund would have to classify the liquidity of its portfolio assets, but the Commission would not require any specific classification scheme;¹¹³⁸ (ii) a simplified version of the proposed classification system, with fewer classification categories based on shorter time projections than the proposal;¹¹³⁹ and (iii) an approach with new classification categories based on qualitative distinctions in the market- and

¹¹³⁶ See ICI Comment Letter I.

¹¹³⁷ See 2014 Money Market Fund Reform Adopting Release, *supra* footnote 43, at section III.A.1.

¹¹³⁸ See, e.g., AIMA Comment Letter; LSTA Comment Letter; Street Comment Letter; Wellington Comment Letter.

¹¹³⁹ See, e.g., Eaton Vance Comment Letter I; Interactive Data Comment Letter; Markit Comment Letter; Wells Fargo Comment Letter. Commenters generally suggested three, four, or five classification categories.

trading-related characteristics of different asset classes under different market conditions, which generally would rely on the Commission mapping different asset classes to each of these new classification categories.¹¹⁴⁰

A purely principles-based approach to classifying assets, as suggested by several commenters, would have the benefit of allowing each fund to tailor its classification scheme to the liquidity factors most relevant to the assets it invests in rather than imposing a one-size-fits-all approach that may be less applicable to some funds. However, as discussed above, this approach would not provide a uniform methodology for funds' liquidity assessment procedures and would not promote reasonably comparable reporting to the Commission and disclosure to the public about funds' portfolio liquidity.¹¹⁴¹ Instead, also as discussed above, we are largely adopting commenters' suggested approach of reducing the number of liquidity classifications from six to four.¹¹⁴²

The Commission considered but is not adopting commenters' alternative of having the Commission establish a fixed classification schema to which all funds must adhere—for example, an enumeration of asset classes and a mapping of those classes to a liquidity classification.¹¹⁴³ This approach would have the benefit of producing liquidity classifications that are objectively comparable across funds, but the Commission may not be able to respond as

¹¹⁴⁰ See, e.g., BlackRock Comment Letter; MFS Comment Letter; Nuveen Comment Letter; CSRC Comment Letter.

¹¹⁴¹ See *supra* section III.C.6.

¹¹⁴² The Commission also could have, as described in the Proposing Release, required funds to classify each portfolio position as “liquid” or “illiquid,” but commenters did not support such an alternative, and we continue to believe that a two-category approach would be insufficiently nuanced to capture the full spectrum of portfolio position liquidity. See also *supra* section III.C.1.a for a more detailed discussion of commenter suggestions with respect to the number of liquidity classification categories.

¹¹⁴³ For examples suggesting this approach see, e.g., AFR Comment Letter; BlackRock Comment Letter; SRC Comment Letter.

quickly as market participants to dynamic market conditions that might necessitate changes to asset class liquidity classifications, and would be unable to account for determinants of investment liquidity that are fund-specific.

Relatedly, some commenters also suggested classification categories based on alternatives to the “days-to-cash” criterion of the proposed and final rule, including, in whole or in part, on the fraction of average daily trading volume (“ADTV”) that each position size corresponds to, the expected behavior of bid-ask spreads in a given asset, or more qualitative liquidity buckets (*e.g.*, “converted to cash quickly under most circumstances”).¹¹⁴⁴ Some of these more specific criteria may be appropriate for particular assets (*e.g.*, ADTV is a reasonable measure for exchange-traded securities), but do not apply to all assets (*e.g.*, bid-ask spreads are not readily available for some asset classes). Also, more qualitative criteria make it more difficult to compare classifications across funds relative to the “days-to-cash” approach in the final rule.

Highly Liquid Investment Minimum

The final rules require funds that do not primarily hold assets that are highly liquid investments to establish a highly liquid investment minimum as part of their liquidity risk management program and provides some flexibility by not prohibiting the acquisition of less liquid investments, but instead requiring a fund to report to the board and, in some cases, the Commission if it goes below its minimum. The first type of alternative the Commission considered with respect to this requirement concerns which investments satisfy a minimum, which could have varied along a spectrum from more liquid (*e.g.*, only cash would qualify as a

¹¹⁴⁴ See Nuveen Comment Letter; BlackRock Comment Letter; Dodge & Cox Comment Letter; SIFMA Comment Letter I.

highly liquid investment) to less liquid (*e.g.*, investments reasonably expected to convert to cash in the 7-day timeframe associated with open-ended fund redemption and settlement requirements would qualify). While there are various marginal benefits and costs associated with defining investments that satisfy the minimum at points along that spectrum—for example, cash is more liquid but does not provide any yield—the final rule aligns the definition of what investments are subject to the minimum with the definition of the first (most liquid) category of investments in the liquidity risk management program’s liquidity classification requirement.¹¹⁴⁵ This consistency in treatment means that fund advisers, investors, and the Commission can focus on a smaller number of clearly-defined concepts when broadly evaluating fund liquidity.

The Commission also considered whether to make the highly liquid investment minimum purely a target instead of a minimum. The proposed rule would have precluded funds from acquiring less liquid investments anytime they were below their highly liquid investment minimum. Commenters suggested this could lead to several potential costs, as discussed above regarding the rule’s costs and benefits, including the possibility that it could lead to herding behavior among funds.¹¹⁴⁶ Some commenters instead suggested that a target or range be used instead of a minimum, which could provide funds more flexibility in returning to their target without incurring unnecessary trading costs, as well as the ability to trade more opportunistically during periods of market stress.¹¹⁴⁷ However, a target might have been interpreted as an

¹¹⁴⁵ See the Proposing Release, *supra* footnote 9 at n.730 and associated text for a further discussion of cash and “seven day liquid assets” as alternatives for a minimum. We did not receive explicit comments on the merits of which types of investments should satisfy a minimum.

¹¹⁴⁶ For example, any market event that increases the value of the less liquid portion of many funds’ portfolios could place them below the minimum, and could indirectly result in some funds selling less liquid investments at the same time to bring their allocations back in line with their minimums.

¹¹⁴⁷ For comments discussing the costs and benefits of a target vs. a minimum, *see, e.g.*, Blackrock Comment Letter; Federated Comment Letter; Invesco Comment Letter; PIMCO Comment Letter.

“average” level of highly liquid investments funds should hold and, without further requirements such as board reporting, may not have provided a sufficient incentive to fund managers to ensure that the percentage of a fund’s investments invested in relatively liquid investments is at (or above) the level deemed appropriate by the fund. The final rules strike a balance: funds are not prohibited from acquiring less liquid investments if they go below their highly liquid investment minimum, but they must report any shortfall to their boards (and the Commission where required). This should reduce concerns regarding herding behavior,¹¹⁴⁸ but does make it more burdensome for a fund to buy any assets that are not highly liquid investments opportunistically if the fund is at or below its highly liquid investment minimum, insofar as funds may not want to trigger their reporting obligation to their board, the Commission, or both.

Some commenters were generally opposed to a highly liquid investment minimum,¹¹⁴⁹ and the final rule could have excluded this requirement altogether. Doing so would still require that funds manage liquidity risk appropriately but would provide even more flexibility in how that is achieved. However, the highly liquid investment minimum requires funds to directly consider the assets they need to have on hand to meet redemptions in a flexible manner to reduce dilution that may result from forced sales, and funds have flexibility in setting a minimum that is appropriate to the needs of their fund as well as adjusting the minimum dynamically to adapt to changing market conditions.¹¹⁵⁰ We note that the final rule does not require funds that primarily

¹¹⁴⁸ For example, if an asset ceased to be a highly liquid investment, it could indirectly lead funds to sell that asset in order to meet their minimum. Coordinated selling could produce further downward pressure on the value of the investment. Some funds could be interested in purchasing such an investment if they viewed it to be undervalued and thus good for fund investors — which could also help counteract the downward pricing pressure caused by funds exiting their positions — but if such a purchase would cause them to violate their minimum, it would have been prohibited under the proposed rule.

¹¹⁴⁹ See, e.g., Invesco Comment Letter; Blackrock Comment Letter.

¹¹⁵⁰ See *supra* footnote 638 and accompanying text.

hold assets that are highly liquid investments to establish a minimum.

The Commission also considered requiring a uniform highly liquid investment minimum for all funds. This alternative approach would have the advantage of being simple for investors to understand, easy for funds to apply, and simple for our examination staff to verify. However, this alternative would fail to account for notable differences between funds with respect to investment strategy, fund flow patterns, and other characteristics that contribute to funds' liquidity risk, which in turn would make it reasonable for funds' portfolios to have varying liquidity profiles. We believe that the fund-specific highly liquid investment minimum requirement will promote alignment of a fund's liquidity needs with the liquidity of fund investments, while still permitting funds reasonable flexibility in implementation. In light of the significant diversity within the fund industry, we believe that flexibility is appropriate to help minimize the potential costs to investors of the requirement. This approach still includes elements that will help our staff to assess whether funds are holding an appropriate level of assets that are highly liquid investments. Each fund will be required to maintain a written record of how its highly liquid investment minimum was determined, as well as copies of materials submitted to the fund's board in connection with the highly liquid investment minimum.¹¹⁵¹ One benefit of a Commission-determined uniform highly liquid investment minimum would be to ensure that funds do not set their minimum at an artificially low level (*e.g.*, 0) that is divorced from their liquidity risk. We believe that the requirement for a fund to consider certain specified factors in determining its minimum, as well as the recordkeeping and board review requirements discussed above, will help promote funds' establishing realistic minimums, and discourage inappropriately low or zero minimums.

¹¹⁵¹ See proposed rule 22e-4(c)(2)-(3).

Instead of requiring funds to determine and invest their assets in compliance with a highly liquid investment minimum, we could require funds to conduct stress tests of their own design assessing the extent to which the fund has a level of highly liquid investments necessary to cover possible levels of redemptions. This would have the benefit of granting a fund flexibility in determining whether its portfolio liquidity profile is appropriate given its liquidity needs. However, because the quality and comprehensiveness of funds' liquidity risk management currently varies significantly, we believe that requiring funds to have a highly liquid investment minimum is important in reducing the risk that funds will be unable to meet their redemption obligations, in minimizing dilution, and in elevating the overall quality of liquidity risk management across the fund industry. Also, we believe that it would be difficult to determine, depending on the level of discretion a fund would have in developing stress scenarios, whether these scenarios would accurately depict liquidity risk and lead funds to determine the appropriate level of portfolio liquidity they should hold. For example, if a fund's liquidity needs were generally high during normal periods, but were not correspondingly extreme during stress events, basing this fund's portfolio liquidity on the results of stress testing alone could cause a fund to hold too little liquidity during non-stressed periods. Therefore, we do not believe that a general stress testing requirement would be an adequate substitute for the highly liquid investment minimum requirement.

15% Illiquid Investment Limit

Instead of the adopted illiquid investment definition, the Commission could have codified a definition of illiquid investments that reflects the current 15% guideline. This approach would have had the benefit of already being accepted and understood by the industry, and would have entailed few additional implementation costs for funds. However, it would not have been

harmonized with the rule's requirements with respect to other liquidity classifications, particularly the requirement that funds review at least monthly whether their investments are illiquid with respect to relevant market, trading, and investment-specific factors, and also incorporate market depth considerations into this process.¹¹⁵² To the extent that the rule's liquidity classification requirement results in funds more accurately assessing the amount of illiquid investments in their portfolios, funds may improve on their liquidity risk management under the rule as adopted than under a codification of the 15% guideline.

f. Comments on the DERA Study

We received substantial comments on the DERA Study from one commenter. The Commission has carefully considered these comments and adjusted our analysis where appropriate. In terms of broader concerns, the commenter suggested that the analysis in the DERA Study does not provide a strong basis for the specifics of the rule.¹¹⁵³ For example, the commenter asserts that the DERA Study's analysis does not provide a justification for funds sorting their assets into six liquidity categories and does not apply this classification in the DERA Study. The DERA Study's analysis was not designed to justify each policy choice made in the rule. Rather, the analysis in the DERA Study makes certain findings and reports certain empirical results designed to inform the Commission more generally about the current state of fund liquidity.

With respect to the proposal's interpretation of the DERA Study's results, the commenter expressed the concern that the results in the DERA Study provide only indirect evidence on the selling behavior of funds in response to redemptions. While a direct test would be preferable,

¹¹⁵² See *supra* sections III.C.1.b and III.C.3.b.

¹¹⁵³ ICI Comment Letter II.

such a test would require data on both daily fund flows and fund daily transactions, neither of which are available in sufficient detail for analysis. The commenter states that the DERA Study itself only shows that fund liquidity tends to decrease following outflows and that other endogenous factors, such as broad changes in market conditions due to macroeconomic events, could be causing changes in both fund liquidity and fund flows.¹¹⁵⁴ To demonstrate its concerns about endogeneity, the commenter uses a vector autoregression (VAR) to present evidence that a proxy for market returns causes changes to both the Amihud liquidity of the S&P 500 and net U.S. equity mutual fund flows in a manner consistent with its alternative hypothesis that a fund's average Amihud liquidity may decrease due to an increase in market volatility rather than because of fund managers' trading behavior.¹¹⁵⁵ The analysis performed in the DERA Study does control for broad changes in market liquidity at the fund class-level.¹¹⁵⁶ To the extent that broad market effects drive variation in fund liquidity within a fund class in a way that is also correlated with fund flows, we acknowledge the commenter's concern about endogeneity and have modified our interpretation in the discussion above, but we also note that there is anecdotal evidence that supports this interpretation.¹¹⁵⁷ With respect to the Amihud liquidity measure used in the study, the commenter states that the DERA Study's conclusion that a "10% outflow increases the impact of selling \$10 million of the asset-weighted average equity portfolio holding by 11 basis points" is a key result supporting the proposal's hypothesis that funds sell their more

¹¹⁵⁴ ICI Comment Letter II.

¹¹⁵⁵ ICI Comment Letter II.

¹¹⁵⁶ DERA Study, *supra* footnote 95, at 43-44. The model includes Lipper class fixed effects, year-quarter fixed effects, and interactions of those fixed effects. The year-quarter and interaction fixed effects should capture any broad changes in liquidity within different fund styles over time, which could be related to macroeconomic events.

¹¹⁵⁷ *See, e.g., supra* footnote 71.

liquid assets first to meet redemptions. We disagree that the specific economic interpretation of the Amihud measure cited by the commenter is necessary to support the hypothesis that funds tend to sell their more liquid assets: to the extent that the Amihud measure reflects the liquidity of underlying fund assets, a decline in the average Amihud liquidity of a fund's portfolio is consistent with the fund disproportionately selling its more liquid assets.

The commenter concludes that the analysis in the DERA Study does not demonstrate that funds are managing portfolios and redemptions in a manner that harms the interests of non-redeeming shareholders.¹¹⁵⁸ We acknowledge that the analysis does not establish a direct link between redemptions and quantifiable harm to non-redeeming shareholders; as discussed above, it was designed to inform the Commission more generally about the current state of fund liquidity. The commenter also states the DERA Study's finding that municipal bond funds hold less cash following redemptions implies that a 40% outflow would be required to deplete the average municipal bond fund's cash holdings. We acknowledge the commenter's interpretation of the analysis, but note that the results do not imply that all municipal bond funds would necessarily require outflows of a similar magnitude to deplete a significant portion of their cash holdings.

The commenter makes several statements regarding results related to the volatility of fund flows. First, the commenter provides evidence that flow volatility declines with fund size, notes that the DERA Study's use of simple averages to calculate average flow volatility in a given fund category overstates the highly volatile flows of small funds, and shows that asset-weighted flow volatility measures are significantly smaller for all fund categories.¹¹⁵⁹ We

¹¹⁵⁸ ICI Comment Letter II.

¹¹⁵⁹ ICI Comment Letter II.

acknowledge that the simple average will overstate smaller funds relative to an asset-weighted average, but the opposite view holds too: asset-weighted averages will understate flow volatility for small funds, and the rule is concerned with the potential liquidity risk problems at all funds. The commenter also states that the relatively higher flow volatility of alternative funds may simply be attributable to the fact that they are generally smaller in size (because small funds generally tend to have more volatile flows as a percentage of their assets) and that, as they have grown, the volatility of their flows has, if anything, decreased. We acknowledge that the flow volatility of alternative funds may be a function of their smaller size, but also note that small funds are also subject to the rule and that other fund categories, such as foreign bond funds, exhibit higher flow volatility despite being relatively larger in size. The commenter also notes that, as the DERA Study acknowledged, the predictability of fund flows is likely understated. The purpose of analyzing the predictability of flows in the analysis was to determine, using a simple model of fund flows, the extent which flow volatility was predictable and whether, after accounting for predictability, the unexpected component of flow volatility varied across fund types in the same way as total flow volatility. While fund managers may be able to predict a larger fraction of flow volatility, the evidence in the DERA Study supports the notion that unexpected flow volatility varies proportionally with total flow volatility, and the relative ranking of unexpected flow volatility by fund type is not likely to change with a better model of flows. The commenter also states that the DERA Study provides evidence that funds already successfully manage volatile flows.¹¹⁶⁰ The proposal acknowledged that this evidence supports the view that funds do manage volatile flows by holding larger amounts of cash and liquid assets, and this evidence provides support for the rule's inclusion of flow volatility as a factor for funds

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to consider when managing risk.¹¹⁶¹ Finally, the commenter points out that, while the DERA Study finds smaller funds have more volatile flows, small funds may find it easier to trade assets with minimal price effects. We agree that small funds may have less price impact, but note that any fixed trading costs incurred via smaller trades will involve larger proportional trading costs.

The commenter also provides evidence on the relationship between fund flows and holdings of short-term assets for alternative strategy and high-yield bond funds. It finds no relationship between the two, asserting that the lack of a relationship shows funds are not systematically selling short-term assets to meet redemptions. However, this result is at the aggregate level, and does not necessarily preclude a relationship between the two quantities at the fund level for some funds. It also provides a fund-level analysis across high-yield bond funds in 5 separate months and also does not find a relationship between the two in four of the months. In one of the months, it does find statistically significant evidence that a decrease in short-term assets is associated with outflows, consistent with the DERA Study's finding. The commenter's inability to find a relationship is not evidence that there is no relationship *per se*: it is possible the commenter's test simply had low statistical power. To the extent that the commenter's evidence does support the claim that funds do not sell short-term assets in response to fund flows, the DERA Study used a different measure of liquidity and did not claim any evidence found using another measure, such as the short-term asset ratio used by the commenter, would produce the same result. More specifically, while funds may not sell their most liquid investments (which would be reflected in the short-term asset ratio used by the commenter), they could still be disproportionately selling their more liquid investments.

With respect to the liquidity measure used in the DERA Study, the commenter points out

¹¹⁶¹ See Proposing Release, *supra* footnote 9, at n.631 and accompanying discussion.

that it only uses a single measure of market liquidity (Amihud illiquidity) and claims that the measure is not sufficient to support the interpretations the proposal draws from the study.¹¹⁶² We acknowledge that the use of alternative measures could alter some of the results and interpretations in the DERA Study, but also emphasize that the DERA Study was intended to generally inform the Commission about the current state of fund liquidity, not to justify each policy choice made in the rule.

The commenter stated that the academic studies used in support of the DERA Study and the proposal are either (1) theoretical and ignore important institutional details or (2) based on empirical fund-level results which by their design cannot provide any commentary on market-wide concerns. With respect to the theoretical study cited in the proposal, it shows one mechanism by which mutual fund shareholders may have a first-mover incentive using a simplified model of the world for tractability; it is possible that in a model which captures more institutional details as proposed by the commenter—taxes, longer investor horizons, and reinvestment risk—this incentive is reduced or eliminated, but we are not aware of any other studies that reach such a conclusion. With respect to any empirical studies, the primary goal of the rule is to improve the fund-level management of liquidity and redemptions, which makes the cited fund-level academic studies relevant for the discussion. The commenter also points out that one of the empirical studies (Coval and Stafford), which provides evidence of negative price pressure due to forced selling by mutual funds, also states that the ex-ante probability of an equity mutual fund being affected by this risk is small because less than one percent of stocks are affected in a given quarter. The proposal did not claim that forced selling by mutual funds was a pervasive phenomenon, but did highlight that it is a possible risk that funds and their

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shareholders face.

2. *Disclosure and Reporting Requirements Regarding Liquidity Risk and Liquidity Risk Management*

a. Disclosure and Reporting Requirements

We are adopting amendments to Form N-1A as well as adopting new items to Form N-PORT, Form N-CEN, and adopting Form N-LIQUID, to enhance fund disclosure and reporting regarding liquidity and redemption practices. Specifically, amendments to Form N-1A will require a fund to disclose: (i) the number of days in which the fund typically expects to pay redemption proceeds to redeeming shareholders¹¹⁶³ and (ii) the methods the fund typically expects to use to meet redemption requests in stressed and non-stressed market conditions.¹¹⁶⁴

New items on Form N-PORT will require a fund to confidentially disclose monthly: (i) the fund's highly liquid investment minimum and the number of days a fund's holdings in assets that are highly liquid investments fell below that minimum during a given reporting period;¹¹⁶⁵ (ii) the liquidity classification of each investment as determined pursuant to rule 22e-4(b)(2)(i) including the determination of whether the investment qualifies as an illiquid investment, and (iii) the percentage of the fund's highly liquid investments that the fund has segregated to cover, or pledged to satisfy margin requirements in connection with, derivatives transactions in each of the other liquidity classification categories.¹¹⁶⁶ Once per quarter, funds will be required to publicly disclose (with a 60-day delay): (i) the aggregated percentage of their portfolios invested in each of the four liquidity classification categories, but funds will not be required to publicly

¹¹⁶³ Item 11(c)(7) of Form N-1A.

¹¹⁶⁴ Item 11(c)(8) of Form N-1A.

¹¹⁶⁵ Item B.7 of Form N-PORT.

¹¹⁶⁶ Item C.7 of Form N-PORT.

disclose the liquidity classification of each individual position;¹¹⁶⁷ and (ii) the percentage of the fund's highly liquid investments that it has segregated to cover, or pledged to satisfy margin requirements in connection with, derivatives transactions in each of other liquidity classification categories.¹¹⁶⁸

New items on Form N-CEN will require a fund to disclose certain information regarding the use of committed lines of credit and interfund borrowing and lending.¹¹⁶⁹ We have also adopted a new item on Form N-CEN that will require an ETF to report whether it qualifies as an In-Kind ETF.¹¹⁷⁰

The final form amendments differ from the proposal in several ways that may have potential economic consequences. In response to commenters' suggestions, the rule does not require funds to file credit agreements as part of Form N-1A. While Form N-PORT requires funds to report position-level liquidity classifications to the Commission, these classifications will not be publicly released. Instead, a fund will only be required to publicly disclose the aggregate percentage of the fund's holdings invested in each of the four liquidity classification categories and the percentage in each of the four liquidity classification categories of the fund's highly liquid investments that are segregated to cover derivatives transactions. The adopted rule also incorporates commenters' suggestions that the Commission be notified more quickly if a fund's assets that are illiquid investments exceed 15% of its net assets by requiring funds to file Form N-LIQUID indicating such a breach immediately after it occurs. With respect to the highly liquid investment minimum, a fund is required to report any decline below the minimum that

¹¹⁶⁷ Item B.8 of Form N-PORT.

¹¹⁶⁸ Item B.8.b of Form N-PORT.

¹¹⁶⁹ Item C.20 of Form N-CEN.

¹¹⁷⁰ Item E.5 of Form N-CEN.

lasts more than 7 consecutive calendar days to the Commission by filing Form N-LIQUID, whereas the proposal would have required that a fund not purchase less liquid investments while below its minimum. Any significant economic effects of these changes are discussed below.

b. Benefits

The disclosure and reporting requirements will promote investor protection by improving the availability of information regarding funds' liquidity risks and risk management practices, as well as funds' redemption practices. As discussed above, funds' disclosures to shareholders regarding their redemption practices are currently varied in content and comprehensiveness.¹¹⁷¹ To the extent that the requirement for funds to disclose the number of days in which the fund will pay redemption proceeds to redeeming shareholders fosters competition among funds to minimize the timing of redemptions, and assuming funds are able to meet redemptions in the time advertised, such competition could potentially be to the benefit of investors. Relative to the proposal, final Form N-1A requires that funds disclose estimated payment times for each payment method, which should reduce any potential investor confusion associated with the complexity of estimates based on funds' distribution channels under the proposal.¹¹⁷²

While some funds voluntarily include disclosure regarding fund limitations on illiquid asset holdings that track the 15% guideline, a fund is not currently required to disclose information about the liquidity of its portfolio investments. In light of the relatively few disclosure requirements regarding funds' liquidity risks, liquidity risk management practices, and redemption practices, as well as the current inconsistency in funds' liquidity-related disclosures, we believe that the disclosure and reporting requirements would increase shareholders' and the

¹¹⁷¹ See *supra* section III.G.1.a.

¹¹⁷² See Fidelity Comment Letter.

Commission's understanding of particular funds' liquidity-related risks and redemption policies. This in turn should assist investors in making investment choices that better match their risk tolerances.

We note that, while Form N-PORT and Form N-CEN are designed primarily to assist the Commission and its staff, we believe that the information in these forms (including the liquidity-related information to be included in these forms) also will be valuable to investors and other potential users.¹¹⁷³ In particular, we believe that both sophisticated institutional investors and third-party users that provide services to retail investors may find the publically disclosed liquidity-related information to be useful. And we believe that individual investors could benefit indirectly from the information collected on reports on Form N-PORT through analyses prepared by third-party service providers.

The liquidity-related information that funds will be required to provide on Form N-PORT and Form N-CEN will enhance investor protection by improving the Commission's ability to monitor funds' liquidity using relevant and targeted data. This monitoring will permit us to analyze liquidity trends in individual funds, and, to the extent that liquidity profiles are comparable across funds, among certain types of funds and the fund industry as a whole, as well as to better understand funds' liquidity risk management practices. As discussed in our release adopting rules and forms to modernize investment company reporting, the information we receive on these reports will facilitate the oversight of funds and will assist the Commission, as the primary regulator of such funds, to better effectuate its mission to protect investors, maintain fair, orderly, and efficient markets, and facilitate capital formation.¹¹⁷⁴ Some commenters

¹¹⁷³ See Investment Company Reporting Modernization Adopting Release, *supra* footnote 120.

¹¹⁷⁴ See *id.*

supported the reporting of asset-level liquidity classifications if such information was only provided to the Commission (*i.e.*, made non-public),¹¹⁷⁵ although some did object to the disclosure regardless of whether or not it was made public.¹¹⁷⁶

Form N-LIQUID will complement rule 22e-4's enhanced focus on the limits on illiquid investments and the highly liquid investment minimum discussed above by requiring reporting to the SEC every time: (1) a fund's assets that are illiquid investments exceed 15% of its net assets (as well as additional reporting when the fund's assets that are illiquid investments fall back to or below 15% of its net assets); and (2) a fund's investments in highly liquid investments that are assets fall below its highly liquid investment minimum for more than 7 consecutive calendar days. This enhanced reporting could produce significant benefits. For example, the SEC's market monitoring capacity could be enhanced, in that multiple close-in-time filings by similar types of funds may be an indication of market stress in a market segment. Similarly, multiple close-in-time filings by the same fund may be an indication that the fund is failing to adequately manage its liquidity.

Form N-PORT as adopted does not require that the asset-level liquidity classifications be publicly disclosed in order to address commenter concerns about the potential costs of such disclosure (which are discussed in the costs section below). This change reduces some of the proposal's potential public disclosure benefits. Under the proposal, investors—by their own efforts or via third-party products—could have compared how assets were classified according to different funds' subjective approaches and resolved discrepancies across funds to arrive at more

¹¹⁷⁵ See CFA Comment Letter; Dechert Comment Letter; State Street Comment Letter; Interactive Data Comment Letter; Nuveen Comment Letter; Oppenheimer Comment Letter; Charles Schwab Comment Letter; T. Rowe Comment Letter; Voya Comment Letter; Wellington Comment Letter.

¹¹⁷⁶ See Federated Comment Letter; Fidelity Comment Letter; Invesco Comment Letter; SIFMA Comment Letter I.

directly comparable fund liquidity profiles. Under the form as adopted, a fund will publicly disclose a new aggregate liquidity profile by reporting the percentage of its portfolio assigned to each of the four liquidity classification categories on Form N-PORT. This will provide a useful snapshot of fund liquidity to investors and will increase the amount of information available to investors about fund liquidity, but this snapshot may not be as informative as liquidity profiles under the proposed rule. The final form requires funds to confidentially report their investment liquidity classifications to the Commission via Form N-PORT. This maintains a major benefit of the proposal, allowing the Commission to monitor funds' liquidity levels and take action when significant aberrations are discovered.

Similarly, the final form amendments do not require the public disclosure of a fund's highly liquid investment minimum in order to address commenter concerns, but it is not likely that this change will significantly reduce the benefits of reporting this minimum: the primary investor protection benefit of reporting the minimum via Form N-PORT is to encourage funds' holding of highly liquid investments that correspond to the liquidity risks of their strategies. By confidentially reporting the minimum, a fund will give the Commission the capability to monitor whether the minimum is an outlier relative to other funds with similar investment strategies. The oversight role of the fund's board under rule 22e-4 is yet another safeguard in this respect.

Finally, Form N-PORT's requirement that funds disclose the percentage of the fund's highly liquid investments that it has segregated to cover or pledged to satisfy margin requirements in connection with derivatives transactions that are classified as moderately liquid investments, less liquid investments, and illiquid investments, should more accurately reflect the amount of highly liquid investments that are available to manage a fund's liquidity risk. For example, without such a disclosure, investors might assume a fund whose highly liquid

investments are all segregated to cover derivatives positions that are not highly liquid is better prepared to handle redemption requests than it actually is.

Because we cannot predict the extent to which the requirements will enhance investors' awareness of funds' portfolio liquidity and liquidity risk, influence investors' investments in certain funds, or increase the Commission's ability to protect investors, we are unable to quantify the potential benefits discussed in this section.

c. Costs

Funds will incur one-time and ongoing annual costs to comply with the disclosure and reporting requirements regarding liquidity and shareholder redemption practices. Commenters' responses to the estimates of these costs are discussed in the PRA discussion below, and we have updated all estimates in this section to reflect changes in the PRA.¹¹⁷⁷

We estimate that the one-time costs to comply with the amendments to Form N-1A will be approximately \$324 per fund (plus printing costs).¹¹⁷⁸ We estimate that each fund will incur an ongoing cost associated with compliance with the amendments to Form N-1A of approximately \$81 each year to review and update the disclosure regarding redemptions.

The amendments to Form N-PORT will require funds to report on Form N-PORT the liquidity classification of each portfolio investment, and we estimate that the average one-time compliance costs associated with this reporting will be \$15,576 per fund.¹¹⁷⁹ Furthermore, we

¹¹⁷⁷ See *infra* section V.

¹¹⁷⁸ This estimate is based on the following calculation: 1 (1 hour to update registration statement disclosure about redemption procedures) x \$324 (blended rate for a compliance attorney (\$340) and a senior programmer (\$308)) = \$324. This figure incorporates the costs we estimated for each fund to update its registration statement to include the required disclosure about: (i) the number of days in which the fund will pay redemption proceeds to redeeming shareholders; and (ii) the methods the fund uses to meet redemption requests in stressed and non-stressed market conditions. The costs associated with these activities are all paperwork-related costs and are discussed in more detail *infra* at section V.F.

¹¹⁷⁹ This estimate is based on the following calculation: (i) project planning and systems design (24 hours x

estimate that 9,347 funds will be required to file, on a monthly basis, additional information on Form N-PORT as a result of the amendments.¹¹⁸⁰ Assuming that 35% of funds (3,271 funds) will choose to license a software solution to file reports on Form N-PORT in house,¹¹⁸¹ we estimate an upper bound on the initial annual costs to file the additional information associated with the amendments for funds choosing this option of \$783 per fund¹¹⁸² with annual ongoing costs of \$261 per fund.¹¹⁸³ We further assume that 65% of funds (6,076 funds) will choose to retain a third-party service provider to provide data aggregation and validation services as part of the

\$264 (hourly rate for a senior systems analyst) = \$6,336) and (ii) systems modification integration, testing, installation and deployment (30 hours x \$308 (hourly rate for a senior programmer) = \$9,240). \$6,336 + \$9,240 = \$15,576. Estimates for drafting, integrating, implementing policies and procedures are addressed in the discussion of rule 22e-4. This figure incorporates the costs that we estimated associated with preparing the section of the fund's report on Form N-PORT that will incorporate the information that will be required under Item C.7. The costs associated with these activities are all paperwork-related costs and are discussed in more detail *infra* at section V.E. As discussed in section V.E *infra*, we believe that any external annual costs associated with filing Form N-PORT will be only incrementally affected by compliance with Item C.7 of Form N-PORT, and thus Item C.7 does not affect our previous estimates of these costs.

¹¹⁸⁰ There were 10,633 open-end funds (excluding money market funds, and including ETFs) as of the end of 2015. See 2016 ICI Fact Book, *supra* footnote 11, at 22, 176, 183. As discussed in note 1253, *infra*, we assume that 75% of ETFs, or 1,196 ETFs, will identify as In-Kind ETFs, which are exempt from the classification requirement, thereby reducing the total number of funds filing classification information to 9,347.

¹¹⁸¹ This assumption tracks the assumption made in the Investment Company Reporting Modernization Adopting Release that 35% of funds will choose to license a software solution to file reports on Form N-PORT. See Investment Company Reporting Modernization Adopting Release, *supra* footnote 120.

¹¹⁸² This estimate is based upon the following calculations: \$783 in internal costs = (\$783 = 3 hours x \$261 (blended hourly rate for senior programmer (\$308), senior database administrator (\$312), financial reporting manager (\$266), senior accountant (\$192), intermediate accountant (\$157), senior portfolio manager (\$306), and compliance manager (\$283)). We do not anticipate any change to external annual costs as a result of the amendments. See *infra* at section V.E. The hourly wage figures in this and subsequent footnotes are from SIFMA's Management & Professional Earnings in the Securities Industry 2013, modified by Commission staff to account for an 1800-hour work-year and multiplied by 5.35 to account for bonuses, firm size, employee benefits, and overhead.

¹¹⁸³ This estimate is based upon the following calculations: \$261 in internal costs (\$261 = 1 hour x \$261 (blended hourly rate for senior programmer (\$308), senior database administrator (\$312), financial reporting manager (\$266), senior accountant (\$192), intermediate accountant (\$157), senior portfolio manager (\$306), and compliance manager (\$283)). We do not anticipate any change to external annual costs as a result of the amendments. See *infra* at section V.E.

preparation and filing of reports on Form N-PORT,¹¹⁸⁴ and we estimate an upper bound on the initial costs to file the additional information associated with the amendments for funds choosing this option of \$1,044 per fund¹¹⁸⁵ with annual ongoing costs of \$131 per fund.¹¹⁸⁶

Likewise, compliance with the amendments to Form N-CEN will involve ongoing costs as well as one-time costs. We estimate that 10,633 funds will be required to file responses on Form N-CEN as a result of the amendments to the form. We estimate that the one-time and ongoing annual compliance costs associated with providing additional responses to Form N-CEN as a result of the amendments will be approximately \$162 per fund.¹¹⁸⁷

Based on these estimates, staff further estimates that the total one-time costs to comply with the disclosure and reporting requirements will be approximately \$55 million for all funds that would file reports on Form N-PORT in house¹¹⁸⁸ and approximately \$103 million for all

¹¹⁸⁴ This assumption tracks the assumptions made in the Investment Company Reporting Modernization Adopting Release that 65% of funds will choose to retain a third-party service provider to provide data aggregation and validation services as part of the preparation and filing of reports on Form N-PORT. See Investment Company Reporting Modernization Adopting Release, *supra* footnote 120.

¹¹⁸⁵ This estimate is based upon the following calculations: \$1,044 in internal costs (\$1,044 = 4 hours x \$261 (blended hourly rate for senior programmer (\$308), senior database administrator (\$312), financial reporting manager (\$266), senior accountant (\$192), intermediate accountant (\$157), senior portfolio manager (\$306), and compliance manager (\$283)). We do not anticipate any change to external annual costs as a result of the amendments.

¹¹⁸⁶ This estimate is based upon the following calculations: \$130.5 in internal costs (\$130.5 = (0.5 hours x \$261 (blended hourly rate for senior programmer (\$308), senior database administrator (\$312), financial reporting manager (\$266), senior accountant (\$192), intermediate accountant (\$157), senior portfolio manager (\$306), and compliance manager (\$283)). We do not anticipate any change to external annual costs as a result of the amendments.

¹¹⁸⁷ This estimate is based on the following calculation: 0.5 hour x \$324 (blended hourly rate for a compliance attorney (\$340) and a senior programmer (\$308)) = \$162. This figure incorporates the costs that we estimated associated with preparing the section of the fund's report on Form N-CEN that will incorporate the information that will be required under Item C.20. We do not estimate any additional costs in connection with proposed Item E.5 of Form N-CEN because the new item only requires a yes or no response. We do not estimate any change to the external costs associated with Form N-CEN. The costs associated with these activities are all paperwork-related costs and are discussed in more detail *infra* at section V.E.

¹¹⁸⁸ This estimate assumes that 35% of funds (3,271 funds) would choose to file reports on proposed Form N-PORT in house (*see infra* section V.D) and is based on the following calculation: 3,271 funds x \$16,845

funds that will use a third-party service provider to prepare and file reports on Form N-PORT.¹¹⁸⁹

In addition, staff estimates that the total ongoing annual costs associated with the disclosure and reporting requirements would be approximately \$1.6 million for all funds that file reports on Form N-PORT in house¹¹⁹⁰ and approximately \$2.3 million for all funds that use a third-party service provider to prepare and file reports on Form N-PORT.¹¹⁹¹

Commenters expressed concern that it was not appropriate to require public disclosure of liquidity classifications by position via Form N-PORT, arguing that reporting position-level liquidity classifications creates significant costs which outweigh the potential benefits. For example, they suggested this disclosure could create potential litigation exposures, create investor confusion surrounding the perceived precision of the classifications, stifle innovation in liquidity risk management, or facilitate predatory trading and/or first-mover incentives, particularly during times of stress.¹¹⁹² We agree that funds could have encountered costs related to the above concerns if they were required to follow the disclosure regime contemplated in the original proposal. While investors already have access to fund portfolio positions, to the extent that position-level liquidity classifications could have been valuable to professional traders, predatory trading opportunities could have increased under the proposal. The final form mitigates these costs by requiring that a fund's most competitively-sensitive information—its

$(\$324 + \$15,576 + \$783 + \$162) = \$55,099,995.$

¹¹⁸⁹ This estimate assumes that 65% of funds (6,076) would choose to file reports on proposed Form N-PORT with the assistance of third-party service providers (*see infra* section V.D) and is based on the following calculation: 6,076 funds x \$17,106 (\$324 + \$15,576 + \$1,044 + \$ 162) = \$103,850,526.

¹¹⁹⁰ This estimate is based on the following calculation: 3,271 funds x \$502.63 (\$79.63 + \$261 + \$162) = \$1,644,102.73.

¹¹⁹¹ This estimate is based on the following calculation: 6,071 funds x \$372.63 (\$79.63 + \$131 + \$162) = \$2,262,236.73

¹¹⁹² *See, e.g.*, Federated Comment Letter; Dodge & Cox Comment Letter; PIMCO Comment Letter; Invesco Comment Letter.

individual position liquidity classifications—be filed confidentially with the Commission.

The costs of the adopted form amendments differ from the proposal in several ways. First, as discussed above, the Form N-PORT only requires that funds publicly disclose an aggregate liquidity profile, which should significantly mitigate many of the potential costs associated with the potential front running of mutual funds by sophisticated investors. Second, Form N-PORT requires a fund to disclose the percentage of the fund’s highly liquid investments that it has segregated to cover or pledged to satisfy margin requirements in connection with derivatives transactions that are classified as moderately liquid investments, less liquid investments, and illiquid investments. By contrast, the proposed rules required a fund to pair each segregated asset with the derivative it was covering. The final rule’s approach should lower costs relative to the proposal. We also are not requiring funds to file credit agreements as exhibits to Form N-1A. Many commenters objected to the proposed requirement to file line of credit agreements¹¹⁹³ with some arguing that such filings would be unnecessary because lines of credit are often already disclosed under existing requirements of Form N-1A, in a fund’s statement of additional information, in footnotes to fund financial statements, and potentially in Form N-CEN.¹¹⁹⁴ In addition, commenters stated that public disclosure of line of credit agreements could (1) weaken their ability to negotiate credit terms;¹¹⁹⁵ (2) make public proprietary and competitive information;¹¹⁹⁶ and (3) discourage lending banks from granting certain lending terms to funds (out of a concern that terms granted would become standard in

¹¹⁹³ Fidelity Comment Letter; CRMC Comment Letter; Invesco Comment Letter; Oppenheimer Comment Letter; T. Rowe Comment Letter; Voya Comment Letter.

¹¹⁹⁴ Oppenheimer Comment Letter; T. Rowe Comment Letter; Voya Comment Letter.

¹¹⁹⁵ Oppenheimer Comment Letter; Fidelity Comment Letter.

¹¹⁹⁶ CRMC Comment Letter; Invesco Comment Letter; Oppenheimer Comment Letter; Voya Comment Letter.

other lending agreements).¹¹⁹⁷ Removing the requirement to file credit agreements as exhibits to Form N-1A should, if anything, lead to a reduction in the costs associated with filing that form, vis-à-vis the proposed rule.

The requirement to file Form N-LIQUID in three circumstances — if more than 15% of a fund’s net assets are, or become, illiquid investments that are assets; if the fund’s illiquid investments that are assets previously exceeded 15% of net assets and the fund determines that its illiquid investments that are assets have changed to be less than or equal to 15% of net assets; or if a fund’s holdings in highly liquid investments that are assets fall below the fund’s highly liquid investment minimum for more than 7 consecutive calendar days — may impose small incremental costs on funds. The adopted rule’s liquidity risk management framework should help encourage funds to avoid exceeding the 15% illiquid investment limit, but in cases where they must file Form N-LIQUID, there will be incidental costs associated with filing the form itself. There will be similar incidental costs associated with filing Form N-LIQUID should a fund breach its highly liquid investment minimum for more than 7 consecutive calendar days. We estimate these costs as \$1,745 per filing, and estimate the total number of filings to be roughly 90 per year, for an aggregate cost of \$157,050.¹¹⁹⁸ Finally, any potential indirect costs associated with filing the form, such as spillover effects or investor flight due to a breach, should be limited because Form N-LIQUID filings will not be publicly disclosed. Because Form N-LIQUID filings will be triggered by events that are part of a fund’s periodic review of its investment classifications under rule 22e-4, the monitoring costs associated with Form N-LIQUID are included in our estimates of the compliance costs for rule 22e-4 above.

¹¹⁹⁷ Fidelity Comment Letter.

¹¹⁹⁸ See *infra* footnotes 1280-1287 and surrounding discussion for more details on these estimates.

d. Effects on Efficiency, Competition, and Capital Formation

We believe the final rules' disclosure requirements could increase informational efficiency by providing additional information about the aggregate liquidity profile of funds' portfolios to investors and third-party service providers. To the extent that aggregate liquidity profiles—the percentages a fund holds in each of the four liquidity classification categories—are comparable across funds, this could assist investors in evaluating the risks associated with certain funds, which could increase allocative efficiency by assisting investors in making more informed investment choices that better match their risk tolerances. However, because each fund has discretion in how it defines both the asset type and liquidity classification of its portfolio positions, the publicly disclosed aggregation of these classifications may not be directly comparable across funds; in this case, allocative efficiency may not be enhanced, and, if fund liquidity profiles are misinterpreted as being comparable, efficiency could be reduced. Enhanced disclosure regarding funds' liquidity and liquidity risk management practices could positively affect competition by permitting investors to choose whether to invest in certain funds based on this information. However, if investors were to move their assets among funds as a result of the disclosure requirements (for example, if the disclosure made clear that a certain fund was able to generate higher returns than its peers only because of high exposures to relatively less liquid positions, which then led investors with limited risk tolerance to move assets out of this fund), this could negatively affect the competitive stance of certain funds.

Increased investor awareness of funds' portfolio liquidity and liquidity risk management practices also could promote capital formation if investors find certain funds' liquidity profiles or risk management practices, or both, attractive, and this awareness promotes increased investment in these funds (assuming these investments consist of assets that were not otherwise invested in

the capital markets) and in turn in the assets in which the funds invest. On the other hand, disclosure which reveals liquidity risk could negatively impact capital formation if the disclosure causes investors to perceive that some funds pose too great an investment risk. Investors could consequently decide not to invest in these funds or to decrease their investment in these funds. If these foregone investments are not reinvested elsewhere in capital markets, capital formation would be negatively affected. Conversely, to the extent that investors assume that funds investing in relatively less liquid investments could obtain a liquidity risk premium in the form of higher returns over some period of time, the potential for higher returns could draw certain investors to funds investing in relatively less liquid asset classes, which could positively affect capital formation. If investors shift their invested investments between funds based on liquidity, there could be capital formation effects stemming from increased (or decreased) investment in the funds' portfolio investments, even if the total capital invested in funds remains constant. For example, if fund investors move assets from an investment strategy that entails relatively high liquidity risk to one whose investment strategy involves relatively low liquidity risk, less liquid portfolio asset classes could experience an adverse impact on capital formation while the more liquid portfolio asset classes could experience a positive impact on capital formation, although the total capital invested in funds would remain constant.

Relative to the proposal, the final disclosure and reporting requirements do not significantly alter our assessment of the requirements' impact on efficiency, competition, and capital formation. The exclusion of individual portfolio position classification from public disclosure requirements reduces the potential efficiency and capital formation gains that might accrue from better informed investors: position-level data could have been used (directly or via third-party vendor applications) to construct a detailed breakdown of a fund's liquidity profile,

but any public analysis is now limited to an aggregate liquidity profile for each fund to address the concerns of commenters regarding the potential costs of disclosing position-level liquidity data publicly. At the same time, to the extent position-level liquidity classifications could be valuable to professional traders, requiring less public disclosure may reduce any potential inefficiencies that could have resulted from predatory trading or front running associated with the disclosure of individual investment classifications.

In addition, while we are also imposing a new filing requirement via Form N-LIQUID, this form will be filed confidentially with the Commission and will only be necessary when a fund breaches the 15% illiquid investment limit, returns to compliance with the 15% illiquid investment limit, or breaches its highly liquid investment minimum for longer than 7 consecutive calendar days. Requiring notice to the Commission of these events may itself provide an incentive for funds to manage their liquidity in such a way as to avoid triggering the reporting obligation; where a reporting obligation is triggered, Form N-LIQUID will provide the Commission with timely information that may prompt the Commission to inquire further into the circumstances that gave rise to the requirement to file Form N-LIQUID. As discussed above, for example, if a number of similarly-situated funds each file a report in close temporal proximity to one another, or if a single fund files a series of reports, such information is likely to be of value to the Commission in taking appropriate action to protect investors, if required. If Form N-LIQUID provides an early warning of potential fund liquidity issues that is sufficiently timely and clear to permit Commission involvement when needed to respond to the potential for disruptive fund closures and associated negative consequences, including fund shareholder dilution and any spillover effects, Form N-LIQUID could enhance efficiency to the extent that negative price pressure on investments due to fire sales is avoided and, to the extent mutual fund

investors associate this with lower liquidity risk in the mutual fund industry, Form N-LIQUID may promote capital formation.

e. Reasonable Alternatives

The following discussion addresses significant alternatives to the disclosure and reporting requirements. More detailed alternatives to the individual elements of the requirements are discussed in detail above.¹¹⁹⁹

The Commission considered requiring each fund to disclose information about the liquidity of its portfolio positions in the fund's prospectus or on the fund's website, in addition to in reports filed on Form N-PORT. For example, we could have required a fund to disclose its highly liquid investment minimum, or the percentage of the fund's portfolio invested in each of the liquidity categories specified under rule 22e-4(b)(2)(i), in its prospectus or on its website. This additional disclosure could further increase transparency with respect to funds' portfolio liquidity and liquidity-related risks. But this additional disclosure could inappropriately emphasize risks relating to a fund's portfolio liquidity over other significant risks associated with an investment in the fund. In addition, funds are not precluded from voluntarily disclosing any of the information contained in the rule's required disclosure forms on their websites, so it is likely more efficient to allow investor demand for this information to drive whether or not funds publicly disclose this information of their own volition.

Conversely, the Commission also considered both limiting and expanding the enhancements to funds' liquidity-related disclosures on Form N-PORT. As discussed above, we are sensitive to the possibility that any amendments to the form could facilitate front-running, predatory trading, and other activities that could be detrimental to a fund and its investors. We

¹¹⁹⁹ See *supra* sections III.G.1.a, III.G.1.b, III.G.2.d, and III.G.3.c.

likewise carefully considered costs and benefits with respect to the new liquidity-related disclosures required under Form N-PORT and concluded that these disclosures appropriately balance related costs with the benefits that could arise from the ability of the Commission, and members of the public, to monitor and analyze the liquidity of individual funds, as well as liquidity trends within the fund industry.

In response to the proposal, which would have required that certain position-level data be reported publicly (albeit with a 60 day delay) commenters suggested that the Commission require (1) no reporting of any kind, or (2) no public disclosure, in light of potential negative competitive effects of public reporting and the limited benefits of stale data in understanding current fund liquidity levels.¹²⁰⁰ The Commission considered these alternatives, but rejected the first alternative because it would have provided no useful information to investors to permit them to better understand their funds' liquidity profiles, and no useful information to the Commission to enable the Commission to better monitor funds' liquidity. With regard to the second alternative, providing no information to investors would have the same defect of not permitting investors the opportunity to assess and make investment decisions based on better information about funds' liquidity. However, recognizing commenters' concern about voluminous, stale data, the final form provides investors with aggregated information — the percentage of the funds' portfolio falling into each of the four liquidity categories — and reserves the more detailed data for confidential submission to the Commission. We believe the approach in the final form strikes an appropriate balance, by mitigating many of the concerns expressed by commenters while preserving significant benefits for investors (both directly, and through the Commission's improved ability to monitor funds).

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See supra section III.C.6.

V. PAPERWORK REDUCTION ACT ANALYSIS

A. Introduction

New rule 22e-4 contains “collections of information” within the meaning of the Paperwork Reduction Act of 1995 (“PRA”).¹²⁰¹ In addition, the amendments to Form N-1A will impact the collections of information burden under those rules and form. The new reporting requirements on Form N-CEN and Form N-PORT will impact the collections of information burdens associated with these forms described in the Investment Company Reporting Modernization Adopting Release.¹²⁰² New rule 30b1-10 and new Form N-LIQUID also contain a collection of information within the meaning of the PRA.¹²⁰³

The titles for the existing collections of information are: “Form N-1A under the Securities Act of 1933 and under the Investment Company Act of 1940, Registration Statement of Open-End Management Investment Companies” (OMB Control No. 3235-0307). In the Investment Company Reporting Modernization Adopting Release, we submitted new collections of information for Form N-CEN and Form N-PORT.¹²⁰⁴ The titles for these new collections of information are: “Form N-CEN Under the Investment Company Act, Annual Report for Registered Investment Companies” and “Form N-PORT Under the Investment Company Act, Monthly Portfolio Investments Report.”

We are submitting new collections of information for new rule 22e-4, new rule 30b1-10, and new Form N-LIQUID under the Investment Company Act of 1940. The titles for these new collections of information will be: “Rule 22e-4 Under the Investment Company Act of 1940,

¹²⁰¹ 44 U.S.C. 3501 through 3521.

¹²⁰² See Investment Company Reporting Modernization Adopting Release, *supra* footnote 120.

¹²⁰³ See rule 30b1-10 requiring certain funds to file Form N-LIQUID.

¹²⁰⁴ See Investment Company Reporting Modernization Adopting Release, *supra* footnote 120.

Liquidity risk management programs,” “Rule 30b1-10 Under the Investment Company Act of 1940, Current report for open-end management investment companies,” and “Form N-LIQUID, Current Report, Open-end Management Investment Company Liquidity.” The Commission is submitting these collections of information to the OMB for review in accordance with 44 U.S.C. 3507(d) and 5 CFR 1320.11. An agency may not conduct or sponsor, and a person is not required to respond to, a collection of information unless it displays a currently valid control number.

The Commission is adopting new rule 22e-4, new rule 30b1-10, new Form N-LIQUID, and amendments to Form N-1A. The Commission also is adopting new items to Form N-CEN and Form N-PORT. The new rules and amendments are designed to promote effective liquidity risk management throughout the open-end fund industry and enhance disclosure and Commission oversight of fund liquidity and shareholder redemption practices. We discuss below the collection of information burdens associated with these reforms. In the Proposing Release, the Commission solicited comment on the collection of information requirements and the accuracy of the Commission’s statements in the Proposing Release.

B. Rule 22e-4

Rule 22e-4 requires a “fund” and an In-Kind ETF, each within the meaning of rule 22e-4,¹²⁰⁵ to establish a written liquidity risk management program that is reasonably designed to assess and manage the fund’s or In-Kind ETF’s liquidity risk. This program includes policies and procedures that incorporate certain program elements, including: (i) for funds, the

¹²⁰⁵ The term “funds” is defined under rule 22e-4(a)(4) to mean an open-end management investment company that is registered or required to be registered under section 8 of the Act and includes a separate series of such an investment company, *but does not include* a registered open-end management investment company that is regulated as a money market fund under § 270.2a-7 or an In-Kind ETF, as defined under rule 22e-4(a)(9).

classification of the liquidity of a fund's portfolio positions; (ii) for funds and In-Kind ETFs, the assessment, management, and periodic review of liquidity risk (with such review occurring no less frequently than annually); (iii) for funds that do not primarily hold assets that are highly liquid investments, the determination of and periodic review of the fund's highly liquid investment minimum and establishment of policies and procedures for responding to a shortfall of the fund's highly liquid investment minimum, which includes reporting to the fund's board of directors; and (iv) for funds and In-Kind ETFs, the establishment of policies and procedures regarding redemptions in kind, to the extent that the fund engages in or reserves the right to engage in redemptions in kind. The rule also requires board approval and oversight of a fund's or In-Kind ETF's liquidity risk management program and recordkeeping. Rule 22e-4 also requires a limited liquidity review, under which a UIT's principal underwriter or depositor determines, on or before the date of the initial deposit of portfolio securities into the UIT, that the portion of the illiquid investments that the UIT holds or will hold at the date of deposit that are assets is consistent with the redeemable nature of the securities it issues and retains a record of such determination for the life of the UIT and for five years thereafter.

The requirements under rule 22e-4 that a fund and In-Kind ETF adopt a written liquidity risk management program, report to the board, maintain a written record of how the highly liquid investment minimum was determined and written policies and procedures for responding to a shortfall of the fund's highly liquid investment minimum, which includes reporting to the fund's board of directors (for funds that do not primarily hold highly liquid investments), establish written policies and procedures regarding how the fund will engage in redemptions in kind, and retain certain other records are all collections of information under the PRA. In addition, the requirement under rule 22e-4 that the principal underwriter or depositor of a UIT assess the

liquidity of the UIT on or before the date of the initial deposit of portfolio securities into the UIT and retain a record of such determination for the life of the UIT, and for five years thereafter, is also a collection of information under the PRA. The respondents to rule 22e-4 will be open-end management investment companies (including, under certain circumstances, In-Kind ETFs but excluding money market funds), and the principal underwriters or depositors of UITs under certain circumstances.

1. *Preparation of Written Liquidity Risk Management Program*

We believe that some open-end funds regularly monitor the liquidity of their portfolios as part of the portfolio management function, but they may not have written policies and procedures regarding liquidity management. Rule 22e-4 requires funds and In-Kind ETFs to have a written liquidity risk management program. We believe such a program will minimize dilution of shareholder interests by promoting stronger and more effective liquidity risk management across open-end funds and will reduce the risk that a fund or In-Kind ETF will be unable to meet redemption obligations.

In the Proposing Release, we estimated that funds within 867 fund complexes would be subject to rule 22e-4.¹²⁰⁶ Compliance with rule 22e-4 would have been mandatory for all such funds. We further estimated that a fund complex would incur a one-time average burden of 40 hours associated with documenting the liquidity risk management programs adopted by each fund within the complex. Under the proposal, rule 22e-4 would have required fund boards to approve the liquidity risk management program and any material changes to the program, and we estimated a one-time burden of nine hours per fund complex associated with fund boards' review

¹²⁰⁶

See Proposing Release, *supra* footnote 9, at n.819 and accompanying text. This estimate excluded ETFs and UITs. See also 2016 ICI Fact Book, *supra* footnote 11, at Fig. 1.8.

and approval of the funds' liquidity risk management programs and preparation of board materials. Amortized over a 3-year period, we estimated this would be an annual burden per fund complex of about 16 hours. Accordingly, we estimated that the total burden for initial documentation and review of funds' written liquidity risk management program would be 42,483 hours.¹²⁰⁷ We also estimated that it would cost a fund complex approximately \$38,791 to document, review and initially approve these policies and procedures, for a total cost of approximately \$33,631,797.¹²⁰⁸

We did not receive any comments on the estimated hour and costs burdens associated with the overall preparation of written liquidity risk management programs under rule 22e-4 discussed above. We did, however, receive comments on the costs associated with the classification of the liquidity of a fund's portfolio positions, which we address below in connection with Form N-PORT. The Commission has modified the estimated increase in annual burden hours and total time costs that will result from the new written liquidity risk management requirements of rule 22e-4 based on certain modifications made to rule 22e-4 and updates to the industry data figures that were utilized in the Proposing Release. Based upon our review of industry data, we estimate that funds within 873 fund complexes would be subject to rule 22e-

¹²⁰⁷ This estimate was based on the following calculation: $(40 + 9) \text{ hours} \times 867 \text{ fund complexes} = 42,483 \text{ hours}$.

¹²⁰⁸ These estimates were based on the following calculations: $20 \text{ hours} \times \$301 \text{ (hourly rate for a senior portfolio manager)} = \$6,020$; $20 \text{ hours} \times \$455.5 \text{ (blended hourly rate for assistant general counsel (\$426) and chief compliance officer (\$485))} = \$9,110$; $5 \text{ hours} \times \$4,465 \text{ (hourly rate for a board of 8 directors)} = \$22,325$; $4 \text{ hours (for a fund attorney's time to prepare materials for the board's determinations)} \times \$334 \text{ (hourly rate for a compliance attorney)} = \$1,336$. $\$6,020 + \$9,110 + \$22,325 + \$1,336 = \$38,791$; $\$38,791 \times 867 \text{ fund complexes} = \$33,631,797$. The hourly wages used are from SIFMA's Management & Professional Earnings in the Securities Industry 2013, modified to account for an 1800-hour work-year and multiplied by 5.35 to account for bonuses, firm size, employee benefits, and overhead. The staff previously estimated in 2009 that the average cost of board of director time was \$4,000 per hour for the board as a whole, based on information received from funds and their counsel. Adjusting for inflation, the staff estimates that the current average cost of board of director time is approximately \$4,465.

4,¹²⁰⁹ updated from 867 in our proposal. Compliance with rule 22e-4 will be mandatory for all such funds and In-Kind ETFs, with certain program elements applicable to certain funds within a fund complex based upon whether the fund is an In-Kind ETF or does not primarily hold assets that are highly liquid investments, as noted above. We discuss mandatory compliance with rule 22e-4 with respect to principal underwriters and depositors of UITs in section V.B.5. below.

The Commission continues to estimate that a fund complex will incur a one-time average burden of 40 hours associated with documenting the liquidity risk management programs adopted by each fund within a fund complex. In light of the requirement that a fund subject to the highly liquid investment minimum requirement adopt and implement policies and procedures for responding to a shortfall of the fund's highly liquid investment minimum, and responding to any potential excesses of the 15% illiquid asset limit, both of which include reporting to the fund's board of directors, we estimate a one-time burden of 10 hours, rather than 9 hours, per fund complex associated with fund boards' review and approval of the funds' liquidity risk management programs and preparation of board materials. Amortized over a 3-year period, we estimate this will be an annual burden per fund complex of about 16.67 hours. Accordingly, we estimate that the total burden for initial documentation and review of funds' written liquidity risk management program will be 43,650 hours.¹²¹⁰ We also estimate that it will cost a fund complex approximately \$41,467.5 to document, review, and initially approve these policies and procedures, for a total cost of approximately \$36,201,127.5.¹²¹¹

¹²⁰⁹ See 2016 ICI Fact Book, *supra* footnote 11, at Fig. 1.8.

¹²¹⁰ This estimate is based on the following calculation: (40 +10) hours x 873 fund complexes = 43,650 hours.

¹²¹¹ These estimates are based on the following calculations: 20 hours x \$306 (hourly rate for a senior portfolio manager) = \$6,120; 20 hours x \$463 (blended hourly rate for assistant general counsel (\$433) and chief compliance officer (\$493)) = \$9,260; 5.5 hours x \$4,465 (hourly rate for a board of 8 directors) = \$24,557.5; 4.5 hours (for a fund attorney's time to prepare materials for the board's determinations) x \$340

2. *Reporting Regarding the Highly Liquid Investment Minimum*

Rule 22e-4 requires any fund that does not primarily hold assets that are highly liquid investments to determine a highly liquid investment minimum for the fund, which must be reviewed at least annually, and may not be changed during any period of time that a fund's assets that are highly liquid investments are below the determined minimum without approval from the fund's board of directors.¹²¹² The fund's investment adviser or officers designated to administer the liquidity risk management program must provide a written report to the fund's board at least annually that describes a review of the adequacy and effectiveness of the fund's liquidity risk management program, including, if applicable, the operation of the highly liquid investment minimum.¹²¹³ In addition, the fund must adopt and implement policies and procedures for responding to a shortfall of the fund's assets that are highly liquid investments below its highly liquid investment minimum, which must include reporting to the fund's board of directors with a brief explanation of the causes of the shortfall, the extent of the shortfall, and any actions taken in response, and, if the shortfall lasts more than 7 consecutive calendar days, an explanation of how the fund plans to come back into compliance with its minimum within a reasonable period of time.¹²¹⁴

Similar to the highly liquid investment minimum, in the Proposing Release, we proposed

(hourly rate for a compliance attorney) = \$1,530. \$6,120 + \$9,260 + \$24,557.5 + \$1,530 = \$41,467.5; \$41,467.5 x 873 fund complexes = \$36,201,127.5. The hourly wages used are from SIFMA's Management & Professional Earnings in the Securities Industry 2013, modified by Commission staff to account for an 1800-hour work-year and inflation, and multiplied by 5.35 to account for bonuses, firm size, employee benefits, and overhead. The staff previously estimated in 2009 that the average cost of board of director time was \$4,000 per hour for the board as a whole, based on information received from funds and their counsel. Adjusting for inflation, the staff estimates that the current average cost of board of director time is approximately \$4,465.

¹²¹² See rule 22e-4(b)(1)(iii)(A).

¹²¹³ See rule 22e-4(b)(3)(iii).

¹²¹⁴ See rule 22e-4(b)(1)(iii)(A)(3).

that funds be required to establish a three-day liquid asset minimum as part of a fund's liquidity risk management program, subject to board review, and we estimated that, for each fund complex, compliance with this reporting requirement would entail: (i) five hours of portfolio management time, (ii) five hours of compliance time, (iii) five hours of professional legal time and (iv) 2.5 hours of support staff time, requiring an additional 17.5 burden hours at a time cost of approximately \$5,193 per fund complex to draft the required report to the board.¹²¹⁵ We estimated that the total burden for preparation of the board report would be 15,173 hours, at an aggregate cost of \$4,502,331.¹²¹⁶

We received several comments addressing, in general, the potential costs associated with a fund establishing and implementing a liquid asset minimum. To minimize the costs of implementing a liquid asset minimum, one commenter recommended that funds that have demonstrated a history of investing in only three-day liquid assets be excluded from the proposed three-day liquid asset minimum requirements and thus not incur the costs of related board reporting requirements.¹²¹⁷ Other commenters characterized the program requirements under the proposal as a one-size-fits-all approach to liquidity risk management and expressed the belief

¹²¹⁵ This estimate was based on the following calculation: 5 hours x \$301 (hourly rate for a senior portfolio manager) = \$1,505; 5 hours x \$283 (hourly rate for compliance manager) = \$1,415; 5 hours x \$426 (hourly rate for assistant general counsel) = \$2,130; and 2.5 hours x \$57 (hourly rate for general clerk) = \$143. \$1,505 + \$1,415 + \$2,130 + \$143 = \$5,193. The hourly wages used were from SIFMA's Management & Professional Earnings in the Securities Industry 2013, modified to account for an 1800-hour work-year and multiplied by 5.35 to account for bonuses, firm size, employee benefits, and overhead. The hourly wage used for the general clerk was from SIFMA's Office Salaries in the Securities Industry 2013, modified to account for an 1800-hour work-year and multiplied by 2.93 to account for bonuses, firm size, employee benefits, and overhead.

Because, under the proposal, each fund within a fund complex would be required to determine its own three-day liquid asset minimum, this estimate assumed that the report at issue would incorporate an assessment of the three-day liquid asset minimum for each fund within the fund complex.

¹²¹⁶ These estimates were based on the following calculations: 867 fund complexes x 17.5 hours = 15,173 hours; and \$5,193 x 867 fund complexes = \$4,502,331.

¹²¹⁷ See CFA Comment Letter.

that such requirements were expensive and unsuitable for many funds.¹²¹⁸

As discussed above, the Commission has modified the proposed three-day liquid asset minimum requirement to a highly liquid investment minimum requirement that is tailored to apply only to funds that do not primarily hold highly liquid investments, thereby potentially reducing the number of funds required to establish, maintain, and report a highly liquid investment minimum. In addition, the final rule retains a role for the board in overseeing the fund's liquidity risk management program, but eliminates certain of the more specific and detailed approval requirements originally proposed.¹²¹⁹ Unlike the proposal, however, rule 22e-4 requires a fund that is subject to the highly liquid investment minimum requirement to also adopt and implement policies and procedures to respond to a shortfall of assets that are highly liquid investments below the fund's highly liquid investment minimum, which includes reporting to the fund's board of directors.

In light of these modifications, we estimate that the burdens associated with board reporting will decrease overall in comparison to the proposal due to the elimination of certain board oversight requirements originally proposed and the potential reduction in the number of funds that would require board oversight of a highly liquid investment minimum. Therefore, we have modified the estimated annual burden hours and total costs that will result from the highly liquid investment minimum requirement under rule 22e-4.¹²²⁰ We estimate that, for each fund complex, compliance with the reporting requirement would entail: (i) 4 hours, rather than five

¹²¹⁸ See, e.g., Dechert Comment Letter; Federated Comment Letter.

¹²¹⁹ See *supra* section III.H.3.

¹²²⁰ Under the proposal, because each fund within a fund complex would have been required to determine its own three-day liquid asset minimum, the estimate under the proposal assumed that the report at issue would incorporate an assessment of the three-day liquid asset minimum for each fund within the fund complex. As adopted, rule 22e-4 only requires the assessment of the highly liquid investment minimum for funds that do not primarily hold assets that are highly liquid investments.

hours, of portfolio management time; (ii) 4 hours, rather than five hours, of compliance time; (iii) 4 hours, rather than five hours, of professional legal time; and (iv) 2 hours, rather than 2.5 hours, of support staff time, requiring an additional 14 burden hours at a time cost of approximately \$4,224 per fund complex to draft the required report to the board.¹²²¹ We estimate that fund complexes will have at least one fund that will be subject to the highly liquid investment minimum requirement. Thus, we estimate that 873 fund complexes will be subject to this requirement under rule 22e-4 and that the total burden for preparation of the board report associated will be 12,222 hours, at an aggregate cost of \$3,687,552.¹²²²

3. *Recordkeeping*

Final rule 22e-4 requires a fund or In-Kind ETF to maintain a written copy of the policies and procedures adopted pursuant to its liquidity risk management program for five years in an easily accessible place.¹²²³ The rule also requires a fund to maintain copies of materials provided to the board in connection with its initial approval of the liquidity risk management program and any written reports provided to the board, for at least five years, the first two years in an easily accessible place.¹²²⁴ If applicable, a fund must also maintain a written record of how its highly liquid investment minimum and any adjustments to the minimum were determined, as well as

¹²²¹ The estimate is based on the following calculation: 4 hours x \$306 (hourly rate for a senior portfolio manager) = \$1,224; 4 hours x \$288 (hourly rate for compliance manager) = \$1,152; 4 hours x \$433 (hourly rate for assistant general counsel) = \$1,732; and 2 hours x \$58 (hourly rate for general clerk) = \$116. \$1,224 + \$1,152 + \$1,732 + \$116 = \$4,224. The hourly wages used are from SIFMA's Management & Professional Earnings in the Securities Industry 2013, modified by Commission staff to account for an 1800-hour work-year and inflation, and multiplied by 5.35 to account for bonuses, firm size, employee benefits, and overhead. The hourly wage used for the general clerk is from SIFMA's Office Salaries in the Securities Industry 2013, modified by Commission staff to account for an 1800-hour work-year and inflation, and multiplied by 5.35 to account for bonuses, firm size, employee benefits, and overhead.

¹²²² These estimates are based on the following calculations: 873 fund complexes x 14 hours = 12,222 hours; and \$4,224 x 873 fund complexes = \$3,687,552.

¹²²³ See rule 22e-4(b)(4)(i).

¹²²⁴ See rule 22e-4(b)(4)(ii).

any reports to the board regarding a shortfall in the fund's highly liquid investment minimum, for five years, the first two years in an easily accessible place.¹²²⁵ The retention of these records would be necessary to allow the staff during examinations of funds to determine whether a fund is in compliance with the liquidity risk management program requirements.

Under the proposal, the recordkeeping requirements were substantially similar to those being adopted. In the Proposing Release, we estimated that the burden to retain these records would be five hours per fund complex, with 2.5 hours spent by a general clerk and 2.5 hours spent by a senior computer operator, with an estimated time cost per fund complex of \$361.¹²²⁶ We also estimated that the total burden for recordkeeping related to the liquidity risk management program would be 4,335 hours, at an aggregate cost of \$312,987.¹²²⁷

We did not receive any comments on the estimated hour and cost burdens associated with the recordkeeping requirements of rule 22e-4. The Commission has modified the estimated increase in annual burden hours and total time costs that will result from these requirements in light of modifications to change those subject to the requirements to funds and In-Kind ETFs and to require them to maintain reports to boards concerning a shortfall of the fund's highly liquid investment minimum and the new requirement to retain records submitted to the board related to shortfalls of the minimum. We believe that, on an annual basis, the burden to retain records in connection with rule 22e-4 will be four hours, rather than five hours per fund complex, with 2 hours, rather than 2.5 hours, spent by a general clerk, and 2 hours, rather than 2.5 hours, spent by a senior computer operator, with an estimated time cost per fund complex of \$292, rather than

¹²²⁵ See rule 22e-4(b)(4)(iii).

¹²²⁶ This estimate was based on the following calculations: 2.5 hours x \$57 (hourly rate for a general clerk) = \$143; 2.5 hours x \$87 (hour rate for a senior computer operator) = \$218. \$143 + \$218 = \$361.

¹²²⁷ This estimate was based on the following calculations: 867 fund complexes x 5 hours = 4,335 hours. 867 fund complexes x \$361 = \$312,987.

\$361, based on updated data concerning funds and fund personnel salaries.¹²²⁸ In addition, we estimate that the total burden for recordkeeping related to the liquidity risk management program requirement of rule 22e-4 will be 3,492 hours, rather than 4,335 hours, at an aggregate cost of \$254,916, rather than \$312,987.¹²²⁹

4. *Estimated Total Burden for Open-end Funds*

Amortized over a three-year period, we estimate that the hour burdens and time costs associated with rule 22e-4 for open-end funds, including the burden associated with (1) funds' initial documentation and review of the required written liquidity risk management program, (2) reporting to a fund's board regarding the fund's highly liquid investment minimum, and (3) recordkeeping requirements will result in an average aggregate annual burden of 26,190 hours, rather than 28,611 hours as proposed, and average aggregate time costs of \$14,780,326.5, rather than \$14,431,215 as proposed.¹²³⁰ We continue to estimate that there are no external costs associated with this collection of information.

5. *UIT Liquidity Determination*

As discussed above, we recognize that UITs may in some circumstances be subject to liquidity risk (particularly where the UIT is not a pass-through vehicle and the sponsor does not maintain an active secondary market for UIT shares). We believe that UITs may not have written policies and procedures regarding liquidity management and are adopting a new requirement under rule 22e-4 with respect to UITs. On or before the date of initial deposit of

¹²²⁸ This estimate is based on the following calculations: 2 hours x \$58 (hourly rate for a general clerk) = \$116; 2 hours x \$88 (hour rate for a senior computer operator) = \$176. \$116 + \$176 = \$292.

¹²²⁹ This estimate is based on the following calculations: 873 fund complexes x 4 hours = 3,492 hours. 873 fund complexes x \$292 = \$254,916.

¹²³⁰ These estimates are based on the following calculations: 43,650 hours (year 1) + (2 x 12,222 hours) (years 2 and 3) + (3 x 3,492 hours) (years 1, 2 and 3) ÷ 3 = 26,190 hours; \$36,201,127.5 (year 1) + (2 x \$3,687,552) (years 2 and 3) + (3 x \$254,916) (years 1, 2 and 3) ÷ 3 = \$14,780,326.5.

portfolio securities into a registered UIT, the UIT's principal underwriter or depositor is required to determine that the portion of the illiquid investments that the UIT holds or will hold at the date of deposit that are assets is consistent with the redeemable nature of the securities it issues, and maintain a record of that determination for the life of the UIT and for five years thereafter. The retention of these records would be necessary to allow the staff during examinations to determine whether a UIT is in compliance with the liquidity risk assessment required under rule 22e-4. This assessment would occur on or before the initial deposit of portfolio securities of a new UIT and thus would only need to occur once. Maintenance of the records would be required for the life of the UIT and for five years thereafter.

We estimate that 1615 newly registered UITs will be subject to the UIT liquidity determination requirement under rule 22e-4 each year.¹²³¹ Compliance with rule 22e-4(c) will be mandatory for all principal underwriters or depositors of such UITs. We estimate that the principal underwriter or depositor of a UIT will incur a one-time average burden of 10 hours to document its determination that the portion of the illiquid investments that the UIT holds or will hold at the date of deposit that are assets is consistent with the redeemable nature of the securities it issues. Amortized over a 3 year period, we estimate this would be an annual burden per UIT of about 3 hours. Accordingly, we estimate that the total burden for the initial documentation and review of funds' written liquidity risk management program would be 16,150 hours.¹²³² We also estimate that it will cost the principal underwriter or depositor of a UIT approximately \$2,466 to perform and document this review, for a total cost of approximately

¹²³¹ This estimate is based upon staff review of new UIT registration statements and semi-annual reporting on Form N-SAR filed with the Commission and Monthly Unit Investment Trust Data released by the Investment Company Institute, available at <https://www.ici.org/research/stats>, for the months of January through December of 2015.

¹²³² This estimate is based on the following calculation: 10 hours x 1615 new UITs = 16,150 hours.

\$3,982,590.¹²³³

We estimate that the burden to retain these records will be two hours per UIT, with 1 hour spent by a general clerk and 1 hour spent by a senior computer operator, with an estimated time cost per UIT of \$146.¹²³⁴ We also estimate that the total burden for recordkeeping related to the liquidity risk management program will be 3,230 hours, at an aggregate cost of \$235,790.¹²³⁵ We estimate that there are no external costs associated with this collection of information.

C. Form N-PORT

Today, the Commission is adopting Form N-PORT, which will require funds to report information within thirty days after the end of each month about their monthly portfolio holdings to the Commission in a structured data format.¹²³⁶ Preparing a report on Form N-PORT is mandatory and a collection of information under the PRA, and the information required by Form N-PORT will be data-tagged in XML format. Except for certain reporting items specified in the form, responses to the reporting requirements will be kept confidential for reports filed with respect to the first two months of each quarter; the third month of the quarter will not be kept confidential, but made public sixty days after the quarter end.

In the Investment Company Reporting Modernization Adopting Release, we estimate that, for the 35% of funds that would file reports on Form N-PORT in house, the per fund

¹²³³ These estimates are based on the following calculations: 5 hours x \$308 (hourly rate for a senior programmer) = \$1,540; 2 hours x \$463 (blended hourly rate for assistant general counsel (\$433) and chief compliance officer (\$493)) = \$926. \$1,540 + \$926 = \$2,466; \$2,466 x 1615 estimated new UITs = \$3,982,590. The hourly wages used are from SIFMA's Management & Professional Earnings in the Securities Industry 2013, modified by Commission staff to account for an 1800-hour work-year and inflation, and multiplied by 5.35 to account for bonuses, firm size, employee benefits, and overhead.

¹²³⁴ This estimate is based on the following calculations: 1 hour x \$58 (hourly rate for a general clerk) = \$58; 1 hours x \$88 (hour rate for a senior computer operator) = \$88. \$58 + 88 = \$146.

¹²³⁵ This estimate is based on the following calculations: 1615 UITs x 2 hours = 3,230 hours. 1615 UITs x \$146 = \$235,790.

¹²³⁶ See Investment Company Reporting Modernization Adopting Release, *supra* footnote 120.

average aggregate annual hour burden will be 144 hours per fund, and the average cost to license a third-party software solution will be \$4,805 per fund per year.¹²³⁷ For the remaining 65% of funds that would retain the services of a third party to prepare and file reports on Form N-PORT on the fund's behalf, we estimate that the average aggregate annual hour burden will be 125 hours per fund, and each fund will pay an average fee of \$11,440 per fund per year for the services of third-party service provider. In sum, we estimate that filing reports on Form N-PORT will impose an average total annual hour burden of 144 hours on applicable funds, and all applicable funds will incur on average, in the aggregate, external annual costs of \$103,787,680, or \$9,118 per fund.¹²³⁸

Today, we are also adopting amendments to Form N-PORT concerning liquidity information that require a fund to report information about the fund's highly liquid investment minimum (if applicable),¹²³⁹ the liquidity classification for each portfolio investment among four liquidity categories (with the fourth category covering investments that qualify as "illiquid investments" under the 15% illiquid investment limit),¹²⁴⁰ certain information on the percentage of the fund's highly liquid investments that is segregated to cover, or pledged to satisfy margin requirements in connection with, fund's derivatives transactions in each of the other liquidity categories,¹²⁴¹ and the aggregate percentage of the fund representing each of the four liquidity

¹²³⁷ See *id.* at n. 1426 and accompanying text.

¹²³⁸ See *id.* at n. 1499 and accompanying text.

¹²³⁹ See Item B.7 of Form N-PORT.

¹²⁴⁰ See Item C.7.a of Form N-PORT.

¹²⁴¹ See Item C.7.b of Form N-PORT. The fourth classification category incorporates data that, under the proposal, would have been reported as a 15% standard asset in response to proposed Item C.7 of proposed Form N-PORT.

categories.¹²⁴² Unlike the proposal, the amendments adopted today will not require funds to indicate the dollar amount attributable to different classifications for different portions within a given holding.¹²⁴³ We believe that requiring funds to report information about the liquidity of portfolio investments will enhance the Commission's ability to assess liquidity risk in the open-end fund industry and assist in our regulatory oversight efforts. Moreover, we believe that this information will help investors and other potential users of information on Form N-PORT better understand the liquidity risks in funds.

1. *Liquidity Classification*

Under rule 22e-4(b)(1)(ii), an open-end management investment company (other than a money market fund or an In-Kind ETF) is required as part of its liquidity risk management program to classify the liquidity of each of its portfolio investments (including each of the fund's derivatives transactions) as a highly liquid investment, moderately liquid investment, less liquid investment, or illiquid investment.

Under the proposal, all open-end funds would be required to classify portfolio assets under a days-to-cash framework and report such classifications on Form N-PORT.¹²⁴⁴ In the Proposing Release, we estimated that 8,734 funds would be required to file, on a monthly basis, additional information on Form N-PORT as a result of the proposed amendments to N-PORT to require funds provide additional liquidity information.¹²⁴⁵ We stated our expectation that funds would incur a one-time internal burden to initially classify a fund's portfolio securities and

¹²⁴² See Item C.7.c of Form N-PORT.

¹²⁴³ See *supra* section III.C

¹²⁴⁴ See *id.*; see also Proposing Release, *supra* footnote 9, at section III.B.

¹²⁴⁵ See Proposing Release, *supra* footnote 9, at n.850 and accompanying text. This was based on estimates that there were 8,734 open-end funds (excluding money market funds, and including ETFs (for purposes of these calculations, we excluded non-1940 Act ETFs)) as of the end of 2014.

program existing systems to conduct the ongoing classifications and reviews required under the proposal for reporting purposes. We estimated that each fund would incur an average one-time burden of 54 hours at a time cost of \$15,330.¹²⁴⁶ Amortized over a three-year period, we estimated that this would result in an average annual hour burden of approximately 18 burden hours and a time cost of \$5,110.¹²⁴⁷

Many commenters expressed concerns over the operational costs associated with the assignment of liquidity classifications and the reporting of this information on Form N-PORT. Several commenters expressed the belief that the liquidity classification requirement could impose significant direct costs to a fund and its shareholders (*e.g.*, new operational systems, trade order management systems, and other processes to handle complex classification schemes), which commenters anticipated to be in excess of the Commission's estimates under the proposal.¹²⁴⁸ One commenter estimated that the costs associated with building a liquidity classification system could range in the millions of dollars for fund complexes that have large numbers of portfolio positions.¹²⁴⁹ Another commenter estimated \$2 million in initial implementation costs and more than \$650,000 in annual recurring costs in connection with automating the classification process for over 63,000 portfolio positions.¹²⁵⁰ This commenter also expressed the belief that substantial resources, including additional investment professionals

¹²⁴⁶ See Proposing Release, *supra* footnote 9, n.851 and accompanying text. We estimated that these systems modifications would include the following costs: (i) project planning and systems design (24 hours x \$260 (hourly rate for a senior systems analyst) = \$6,240) and (ii) systems modification integration, testing, installation and deployment (30 hours x \$303 (hourly rate for a senior programmer) = \$9,090. \$6,240 + \$9,090 = \$15,330.

¹²⁴⁷ $\$15,330 \div 3 = \$5,110$. See Proposing Release, *supra* footnote 9, at n.852 and accompanying text.

¹²⁴⁸ See, *e.g.*, CFA Comment Letter; Federated Comment Letter; ICI Comment Letter; Voya Comment Letter.

¹²⁴⁹ See T. Rowe Comment Letter (noting that its fund complex has just under 44,000 portfolio positions combined as of December 31, 2015).

¹²⁵⁰ See Invesco Comment Letter.

and compliance personnel, and additional expenses associated with third-party service providers would increase costs associated with the classification requirement.¹²⁵¹ Some commenters also expressed concern that the costs of diverting resources and key personnel were not considered in the Commission's cost estimates.¹²⁵²

As discussed above, we are adopting a liquidity classification requirement under rule 22e-4 with a number of modifications to address commenters' concerns. Unlike the proposal which would have applied to all open-end funds, In-Kind ETFs are not subject to the classification requirements under rule 22e-4(b)(ii). The classification categories have been reduced from six to four and the timeframe for projections substantially reduced, with the fourth category designated for those investments that qualify as "illiquid investments" harmonized with the codified 15% illiquid investment limit. Furthermore, a fund may classify portfolio investments based on asset class, rather than position-by-position, so long as the fund or its adviser does not have information about any market, trading, or investment-specific considerations that are reasonably expected to significantly affect the liquidity characteristics of an investment and would suggest a different classification for that investment.

We believe that these modifications to the liquidity classification requirements will reduce the number of funds subject to the liquidity classification requirements and will address some of the costs commenters anticipate funds and fund shareholders would bear to establish new operational, trade, and other systems to process and report fund liquidity classification information. However, we recognize, as discussed above, that several commenters suggested that implementation of liquidity classification systems would be more costly than we estimated.

¹²⁵¹ *Id.*

¹²⁵² *See, e.g.*, Dechert Comment Letter; ICI Comment Letter I; Nuveen Comment Letter; Wells Fargo Comment Letter.

Accordingly, we believe, on balance, that the per fund estimates that we proposed are reasonable and are not reducing them, despite having adopted some modifications to rule 22e-4 that we believe reduce the burden relative to the proposal.

We estimate that 9,347 funds, rather than 8,734 funds, will be required to file, on a monthly basis, additional information on Form N-PORT as a result of the modifications to Form N-PORT to require additional liquidity information.¹²⁵³ We continue to expect that funds will incur a one-time internal burden to initially classify a fund's portfolio securities and program new and/or existing systems to conduct the ongoing classifications and reviews required under rule 22e-4 for reporting purposes. We continue to estimate that each fund will incur an average one-time burden of 54 hours, at a time cost of \$15,576, rather than \$15,330 based on updated data concerning funds and fund personnel salaries.¹²⁵⁴ Amortized over a three-year period, we estimate that this will result in an average annual hour burden of approximately 18 burden hours, and a time cost of \$5,192, rather than \$5,110.¹²⁵⁵

2. *Reporting on Form N-PORT*

In addition to the classification and review of securities, we estimated in the Proposing Release that 8,734¹²⁵⁶ funds would be required to file, on a monthly basis, additional information

¹²⁵³ This is based on estimates that there are 9,039 open-end mutual funds (excluding money market funds) and 1,594 ETFs as of the end of 2015. *See supra* footnote 1045 and accompanying text. Based on staff experience, we estimate that more than 75% of ETFs or 1,196 ETFs will identify as In-Kind ETFs and thus will not be subject to the classification requirement. $9,039 + (1,594 - 1,196) = 9,437$.

¹²⁵⁴ We estimate that these systems modifications will include the following costs: (i) project planning and systems design (24 hours x \$264 (hourly rate for a senior systems analyst) = \$6,336) and (ii) systems modification integration, testing, installation and deployment (30 hours x \$308 (hourly rate for a senior programmer) = \$9,240. $\$6,336 + \$9,240 = \$15,576$.

¹²⁵⁵ $\$15,576 \div 3 = \$5,192$.

¹²⁵⁶ *See* Proposing Release, *supra* footnote 9, at section V.E. There were 8,734 open-end funds (excluding money market funds, and including ETFs) as of the end of 2014. *See* 2016 ICI Fact Book, *supra* footnote 11, at 177, 184.

on Form N-PORT. We estimated that each fund that files reports on Form N-PORT in house (35%, or 3,057 funds) would require an average of approximately 3 burden hours to compile (including review of the information), tag, and electronically file the additional information in light of the proposed additions regarding liquidity information for the first time and an average of approximately 1 burden hours for subsequent filings. Therefore, we estimated the per fund average annual hour burden associated with the incremental changes to Form N-PORT as a result of the proposed additions for these funds would be an additional 14 hours for the first year¹²⁵⁷ and an additional 12 hours for each subsequent year.¹²⁵⁸ Amortized over three years, we estimated that the average annual hour burden would be an additional 12.67 hours per fund.¹²⁵⁹

In the Proposing Release, we also estimated that 65% of funds (5,677) would retain the services of a third party to provide data aggregation, validation and/or filing services as part of the preparation and filing of reports on proposed Form N-PORT on the fund's behalf.¹²⁶⁰ For these funds, we estimated that each fund would require an average of approximately 4 hours to compile and review the information with the service provider prior to electronically filing the report for the first time and an average of 0.5 burden hours for subsequent filings.

Therefore, in the Proposing Release, we estimated that the per-fund average annual hour burden associated with the incremental changes to proposed Form N-PORT as a result of the proposed additions related to liquidity information for these funds would be an additional 9.5

¹²⁵⁷ The estimate was based on the following calculation: (1 filing x 3 hours) + (11 filings x 1 hour) = 14 burden hours in the first year.

¹²⁵⁸ This estimate was based on the following calculation: 12 filings x 1 hour = 12 burden hours in each subsequent year.

¹²⁵⁹ The estimate was based on the following calculation: $(14 + (12 \times 2)) \div 3 = 12.67$.

¹²⁶⁰ Proposing Release, *supra* footnote 9.

hours for the first year¹²⁶¹ and an additional 6 hours for each subsequent year.¹²⁶² Amortized over three years, we estimated that the average aggregate annual hour burden would be an additional 7.17 hours per fund.¹²⁶³ In sum, we estimated that the proposed additions to Form N-PORT would impose an average total annual hour burden of an additional 79,436.28 hours on applicable funds.¹²⁶⁴ We did not anticipate any change to the total external annual costs of \$97,674,221 associated with Form N-PORT.¹²⁶⁵

As discussed in section V.E.2 above, many commenters expressed concerns over the operational costs associated with the assignment of liquidity classifications and the reporting of this information on Form N-PORT. In addition, one commenter recommended that estimated costs to purchase third-party liquidity assessment data be included in the total estimated costs to comply with proposed rule given the likelihood that many funds will subscribe to such services to operationally comply with the rule 22e-4.¹²⁶⁶

The Commission has modified the estimated increase in annual burden hours and total time costs that will result from Form N-PORT and the liquidity related amendments to Form N-PORT in consideration of commenters' concerns that the Commission underestimated the operational requirements for reporting and to reflect updates to the industry data figures that were utilized in the Proposing Release. We estimate that 9,347 funds would be required to file,

¹²⁶¹ The estimate was based on the following calculation: (1 filing x 4 hours) + (11 filings x 0.5 hour) = 9.5 burden hours in the first year.

¹²⁶² This estimate was based on the following calculation: 12 filings x 0.5 hour = 6 burden hours in each subsequent year.

¹²⁶³ The estimate was based on the following calculation: $(9.5 + (6 \times 2)) \div 3 = 7.17$.

¹²⁶⁴ The estimate was based on the following calculation: (3,057 funds x 12.67 hours) + (5,677 funds x 7.17 hours) = 79,436.28 hours.

¹²⁶⁵ See Proposing Release, *supra* footnote 9; see also Investment Company Reporting Modernization Adopting Release, *supra* footnote 120.

¹²⁶⁶ See Interactive Data Comment Letter.

on a monthly basis, additional information on Form N-PORT as a result of the additional liquidity-related reporting items adopted today.¹²⁶⁷

We estimate that each fund that files reports on Form N-PORT in house (35%, or 3,271) will require an average of approximately 6 burden hours, rather than 3 burden hours, to compile (including review of the information), tag, and electronically file the additional liquidity information required on Form N-PORT for the first time and an average of approximately 2 burden hours, rather than 1 burden hour, for subsequent filings. Therefore, we estimate the per fund average annual hour burden associated with the incremental changes to Form N-PORT as a result of the added liquidity information for these funds would be an additional 28 hours, rather than 14 hours for the first year¹²⁶⁸ and an additional 24 hours for each subsequent year.¹²⁶⁹ Amortized over three years, the average annual hour burden would be an additional 25.33 hours per fund.¹²⁷⁰

We further estimate that 65% of funds (9,076) will retain the services of a third party to provide data aggregation, validation and/or filing services as part of the preparation and filing of reports on Form N-PORT on the fund's behalf. For these funds, we estimate that each fund will require an average of approximately 8 hours, rather than 4 hours, to compile and review the added liquidity-related information with the service provider prior to electronically filing the report for the first time and an average of 1 burden hour, rather than 0.5 burden hours, for subsequent filings. Therefore, we estimate the per fund average annual hour burden associated

¹²⁶⁷ See footnote 1253 and accompanying text.

¹²⁶⁸ The estimate is based on the following calculation: (1 filing x 6 hours) + (11 filings x 2 hour) = 28 burden hours in the first year.

¹²⁶⁹ This estimate is based on the following calculation: 12 filings x 2 hour = 24 burden hours in each subsequent year.

¹²⁷⁰ The estimate is based on the following calculation: $(28 + (24 \times 2)) \div 3 = 25.33$.

with the liquidity-related changes to Form N-PORT for these funds would be an additional 19 hours, rather than 9.5 hours, for the first year¹²⁷¹ and an additional 12 hours, rather than 6 hours, for each subsequent year.¹²⁷² Amortized over three years, the average aggregate annual hour burden would be an additional 14.33 hours per fund, rather than 7.17 hours per fund.¹²⁷³

In sum, we estimate that the adopted additional liquidity reporting information on Form N-PORT will impose an average total annual hour burden of an additional 169,923.51 hours, rather than 79,436.28 hours, on applicable funds.¹²⁷⁴ As we stated in the Proposing Release, we believe that the changes to Form N-PORT associated with reporting liquidity classifications will not result in third party service providers charging additional fees above those estimated in the Investment Company Modernization Proposing Release. Therefore, we have revised our estimates of number of funds affected as discussed previously, but are continuing to estimate the same external costs for hiring third party service providers as in the Investment Company Modernization Adopting Release. Accordingly, we estimate that the total external annual cost burden of compliance with the information collection requirements of Form N-PORT will be \$103,787,680, or \$9,118 per fund.¹²⁷⁵

D. Form N-LIQUID and Rule 30b1-10

As discussed above, we are adopting a new requirement that open-end investment companies, including In-Kind ETFs but not including money market funds, file a current report

¹²⁷¹ The estimate is based on the following calculation: (1 filing x 8 hours) + (11 filings x 1 hour) = 19 burden hours in the first year.

¹²⁷² This estimate is based on the following calculation: 12 filings x 1 hour = 12 burden hours in each subsequent year.

¹²⁷³ The estimate is based on the following calculation: $(19 + (12 \times 2)) \div 3 = 14.33$.

¹²⁷⁴ The estimate is based on the following calculation: $(3,271 \text{ funds} \times 25.33 \text{ hours}) + (6,076 \text{ funds} \times 14.33 \text{ hours}) = 169,923.51 \text{ hours}$.

¹²⁷⁵ See Investment Company Reporting Modernization Adopting Release, *supra* footnote 120.

on Form N-LIQUID on a non-public basis when certain events related to their liquidity occur.¹²⁷⁶ Similar to Form 8-K under the Exchange Act,¹²⁷⁷ or Form N-CR under the Investment Company Act for money market funds,¹²⁷⁸ Form N-LIQUID requires disclosure, by means of a current report filed with the Commission, of certain specific reportable events. The information reported on Form N-LIQUID concerns events under which more than 15% of a fund's or In-Kind ETF's net assets are, or become, illiquid investments that are assets as defined in rule 22e-4 and when holdings in illiquid investments are assets that previously exceeded 15% of a fund's net assets have changed to be less than or equal to 15% of the fund's net assets.¹²⁷⁹ The information reported on Form N-LIQUID also regards events under which a fund's holdings in assets that are highly liquid investments fall below the fund's highly liquid investment minimum for more than 7 consecutive calendar days. A report on Form N-LIQUID is required to be filed, as applicable, within one business day of the occurrence of one or more of these events.¹²⁸⁰

This reporting requirement on Form N-LIQUID is a collection of information under the PRA. The information provided on Form N-LIQUID will enable the Commission to receive information on fund liquidity events more uniformly and efficiently and will enhance the Commission's oversight of funds when significant liquidity events occur and its ability to respond to market events. The Commission will be able to use the information provided on Form N-LIQUID in its regulatory, disclosure review, inspection, and policymaking roles. This

¹²⁷⁶ This requirement will be implemented through our adoption of new rule 30b1-10, which requires funds to file a report on new Form N-LIQUID in certain circumstances. *See* rule 30b1-10; Form N-LIQUID. For purposes of the PRA analysis, therefore, the burden associated with the requirements of rule 30b1-10 is included in the collection of information requirements of Form N-LIQUID.

¹²⁷⁷ 17 CFR 249.308.

¹²⁷⁸ 17 CFR 270.30b1-8.

¹²⁷⁹ *See* Item C.1 and Item C.2 of Part A of Form N-LIQUID.

¹²⁸⁰ *See* General Instruction A.2 of Form N-LIQUID.

collection of information will be kept confidential.

The staff estimates that the Commission will receive, in the aggregate, an average of 30 reports¹²⁸¹ per year filed in response to an event specified on Part B (“Above 15% Illiquid Investments”), an average of 30 reports¹²⁸² per year filed in response to an event specified on Part C (“At or Below 15% Illiquid Investments”), and an average of 30 reports¹²⁸³ per year filed in response to an event specified on Part D (“Highly Liquid Investments Below the Highly Liquid Investment Minimum”) of the form.

When filing a report on Form N-LIQUID,¹²⁸⁴ staff estimates that a fund will spend on average approximately 4 hours¹²⁸⁵ of an in-house attorney’s time and one¹²⁸⁶ hour of an in-house accountant’s time to prepare, review, and submit Form N-LIQUID, at a total time cost of \$1,745.¹²⁸⁷ Accordingly, in the aggregate, staff estimates that compliance with new rule 30b1-10 and Form N-LIQUID will result in a total annual burden of approximately 450 burden hours and total annual time costs of approximately \$157,050.¹²⁸⁸ Given an estimated 10,633 funds will be

¹²⁸¹ Commission staff estimates this figure based, in part, by reference to the total of 28 Form N-CR filings received by the Commission from mid-July 2015 to mid-July 2016. We recognize that the circumstances under which money market funds report events on Form N-CR are not the same as the liquidity events reported on Form N-LIQUID and that reported occurrences may be less than or more than 30. We believe, however, that Form N-CR provides a helpful guidepost for estimation purposes and believe an estimation of 30 reports is appropriate for purposes of this PRA.

¹²⁸² See *id.*

¹²⁸³ See *id.*

¹²⁸⁴ For purposes of this estimate, the staff expects that it would take approximately the same amount of time to prepare and file a report on Form N-LIQUID, regardless under which Part of Form N-LIQUID it is filed.

¹²⁸⁵ This estimate is derived in part from our current PRA estimate for Form N-CR and Form 8-K.

¹²⁸⁶ *Id.*

¹²⁸⁷ This estimate is based on the following calculations: (4 hours x \$386/hour for an attorney = \$1,544), plus (1 hour x \$201/hour for a senior accountant = \$201), for a combined total of 5 hours at total time costs of \$1,745.

¹²⁸⁸ This estimate is based on the following calculations: (30 reports filed per year with respect to Part B) + (30 reports filed per year with respect to Part C) + (30 reports filed per year with respect to Part D) = 90 reports filed per year. 90 reports filed per year x 5 hours per report = approximately 450 total annual burden hours.

required to comply with new rule 30b1-10 and Form N-LIQUID,¹²⁸⁹ this would result in an annual burden of approximately 0.04 burden hours and annual time costs of approximately \$15 on a per-fund basis. Staff estimates that there will be no external costs associated with this collection of information.

E. Form N-CEN

On May 20, 2015, we proposed to amend rule 30a-1 to require all funds to file reports with certain census-type information on proposed Form N-CEN with the Commission on an annual basis. Proposed Form N-CEN would have been a collection of information under the PRA, and was designed to facilitate the Commission's oversight of funds and its ability to monitor trends and risks. The collection of information under Form N-CEN would be mandatory for all funds, and responses would not be kept confidential.

In the Investment Company Reporting Modernization Proposing Release, we estimated that the average annual hour burden per response for proposed Form N-CEN for the first year would be 32.37 hours and 12.37 hours in subsequent years.¹²⁹⁰ Amortizing the burden over three years, we estimated that the average annual hour burden per fund per year would be 19.04 and the total average annual hour burden would be 59,900 hours.¹²⁹¹ We also estimated that all applicable funds would incur, in the aggregate, external annual costs of \$1,748,637, which would include the costs of registering and maintaining LEIs for funds.

We are adopting, substantially as proposed, amendments to Form N-CEN to enhance the

90 reports filed per year x \$1,745 in costs per report = \$157,050 total annual costs.

¹²⁸⁹ This estimate is based on the number of funds the staff estimates will be required to file reports on Form N-PORT with the Commission. For purposes of this PRA, the staff assumes that the universe of funds affected by rule 30b1-9 for Form N-PORT would be similar to the universe of funds affected by rule 30b1-10 for Form N-LIQUID.

¹²⁹⁰ Investment Company Reporting Modernization Proposing Release, *supra* footnote 120.

¹²⁹¹ *Id.* at n.765 and accompanying text.

reporting of a fund's liquidity risk management practices. Specifically, the amendments to Form N-CEN will require a fund to report information about lines of credit, but in a modification to the proposal, funds will report about both committed *and uncommitted* lines of credit.¹²⁹² As proposed, funds will be required to report information such as the size of the line of credit, the number of days that the line of credit was used, and the identity of the institution with whom the line of credit is held.¹²⁹³ The amendments to Form N-CEN also will require a fund to report whether it engaged in interfund lending or interfund borrowing.¹²⁹⁴ In addition, amendments to Form N-CEN will require an ETF to report whether it qualifies as an "In-Kind ETF" for purposes of rule 22e-4.¹²⁹⁵

In the Proposing Release, we estimated that 8,734 funds would be required to file responses on Form N-CEN as a result of the proposed amendments to the form. We estimated that the average annual hour burden per additional response to Form N-CEN as a result of the proposed amendments would be 0.5 hour per fund per year for a total average annual hour burden of 4,367 hours.¹²⁹⁶ We did not estimate any change to the external costs associated with proposed Form N-CEN.

We did not receive any comments on these estimated hour and cost burdens. The Commission has modified the estimated increase in annual burden hours and total time costs that

¹²⁹² See Item C.20.a. of Form N-CEN.

¹²⁹³ See Id.

¹²⁹⁴ See Item C.20.b. of Form N-CEN.

¹²⁹⁵ See Item E.5 of Form N-CEN. We do not estimate any change in burden as a result of Item E.5 of Form N-CEN because the item only requires a yes or no response. In the Proposing Release, we also proposed to add to Form N-CEN a requirement for funds to report whether the fund required that an authorized participant post collateral to the fund or any of its designated service providers in connection with the purchase or redemption of fund shares during the reporting period. We are adopting this requirement in the Reporting Modernization Release. See *supra* footnote 898.

¹²⁹⁶ This estimate was based on the following calculation: 8,734 funds x 0.5 hours = 4,367 hours.

will result from the amendments based on the modifications to the proposal to require funds to report information on uncommitted lines of credit in addition to committed lines of credit as well as in light of updated data concerning funds and fund personnel salaries. We estimate that 10,633 funds, rather than 8,734 funds will be required to file responses on Form N-CEN as a result of the amendments to the form based on updates to the industry data figures that were utilized in the Proposing Release.¹²⁹⁷ We estimate that the average annual hour burden per additional response to Form N-CEN as a result of the adopted additions to Form N-CEN will be one hour per fund per year, instead of 0.5 hour per fund per year, for a total average annual hour burden of 10,633, rather than 4,367 hours.¹²⁹⁸ We do not estimate any change to the external costs associated with proposed Form N-CEN.

F. Form N-1A

Form N-1A is the registration form used by open-end investment companies. The respondents to the amendments to Form N-1A adopted today are open-end management investment companies registered or registering with the Commission. Compliance with the disclosure requirements of Form N-1A is mandatory, and the responses to the disclosure requirements are not confidential. We currently estimate for Form N-1A a total hour burden of 1,579,974 hours, and the total annual external cost burden is \$124,820,197.¹²⁹⁹

We are adopting amendments to Form N-1A that require funds to disclose additional information concerning the procedures for redeeming a fund's shares. Funds will be required to describe the number of days following receipt of shareholder redemption requests in which the

¹²⁹⁷ See 2016 ICI Fact Book, *supra* footnote 11, at 22, 176, 183.

¹²⁹⁸ This estimate is based on the following calculation: 10,633 funds x 1 hour = 10,633 hours.

¹²⁹⁹ These estimates are based on the last time the rule's information collections were submitted for PRA renewal in 2014.

fund reasonably expects to pay redemption proceeds to redeeming shareholders.¹³⁰⁰ Funds also will be required to describe the methods used to meet redemption requests in stressed and non-stressed market conditions.¹³⁰¹ Funds, however, will not be required to file as exhibits to their registration statements credit agreements as originally proposed. Overall, we believe that requiring funds to provide this additional disclosure regarding redemption procedures will provide Commission staff, investors, and market participants with improved information about the procedures funds use to meet their redemption obligations.

Form N-1A generally imposes two types of reporting burdens on investment companies: (i) the burden of preparing and filing the initial registration statement; and (ii) the burden of preparing and filing post-effective amendments to a previously effective registration statement (including post-effective amendments filed pursuant to rule 485(a) or 485(b) under the Securities Act, as applicable). In the Proposing Release, we estimated that each fund would incur a one-time burden of an additional 2 hours,¹³⁰² at a time cost of an additional \$637,¹³⁰³ to draft and finalize the required disclosure and amend its registration statement in response to the proposed Form N-1A disclosure requirements. In aggregate, we estimated that funds would incur a one-time burden of an additional 17,468 hours,¹³⁰⁴ at a time cost of an additional \$5,563,558,¹³⁰⁵ to comply with the Form N-1A disclosure requirements originally proposed. We estimated that

¹³⁰⁰ See Item 11(c)(7) of Form N-1A.

¹³⁰¹ See Item 11(c)(8) of Form N-1A.

¹³⁰² This estimate was based on the following calculation: 1 hour to update registration statement to include swing pricing-related disclosure statements + 1 hour to update registration statement disclosure about redemption procedures = 2 hours.

¹³⁰³ This estimate was based on the following calculation: 2 hours x \$318.5 (blended rate for a compliance attorney (\$334) and a senior programmer (\$303)) = \$637.

¹³⁰⁴ This estimate was based on the following calculations: 2 hours x 8,734 funds = 17,468 hours.

¹³⁰⁵ This estimate was based on the following calculation: 17,468 hours x \$318.50 (blended rate for a compliance attorney (\$334) and a senior programmer (\$303)) = \$5,563,558.

amortizing the one-time burden over a three-year period would result in an average annual burden of an additional 5,823 hours at a time cost of an additional \$1,854,519.¹³⁰⁶

In the Proposing Release, we also estimated that each fund would incur an ongoing burden of an additional 0.25 hours, at a time cost of an additional \$80,¹³⁰⁷ each year to review and update the proposed disclosure in response to Item 11 and Item 28 of Form N-1A regarding the pricing and redemption of fund shares and the inclusion of credit agreements as exhibits, respectively. In aggregate, we estimated that funds would incur an annual burden of an additional 2,184 hours,¹³⁰⁸ at a time cost of an additional \$695,604,¹³⁰⁹ to comply with the proposed Form N-1A disclosure requirements.

In the Proposing Release, we further estimated that amortizing these one-time and ongoing hour and cost burdens over three years would result in an average annual increased burden of approximately 0.50 hours per fund,¹³¹⁰ at a time cost of \$265.42 per fund.¹³¹¹

In total, we estimated in the Proposing Release that funds would incur an average annual increased burden of approximately 8,007 hours,¹³¹² at a time cost of approximately \$2,550,123,¹³¹³ to comply with the proposed Form N-1A disclosure requirements. We did not

¹³⁰⁶ This estimate was based on the following calculation: 17,468 hours ÷ 3 = 5,823 average annual burden hours; \$5,563,558 burden costs ÷ 3 = \$1,854,519 average annual burden cost.

¹³⁰⁷ This estimate was based on the following calculations: 0.25 hours x \$318.50 (blended hourly rate for a compliance attorney (\$334) and a senior programmer (\$303)) = \$79.63.

¹³⁰⁸ This estimate was based on the following calculation: 0.25 hours x 8,734 funds = 2,183.5 hours.

¹³⁰⁹ This estimate was based on the following calculation: 2,184 hours x \$318.50 (blended hourly rate for a compliance attorney (\$334) and a senior programmer (\$303)) = \$695,604.

¹³¹⁰ This estimate was based on the following calculation: 1 burden hour (year 1) + 0.25 burden hour (year 2) + 0.25 burden hour (year 3) ÷ 3 = 0.50 hours.

¹³¹¹ This estimate was based on the following calculation: \$637 (year 1 monetized burden hours) + \$79.63 (year 2 monetized burden hours) + \$79.63 (year 3 monetized burden hours) ÷ 3 = \$265.42.

¹³¹² This estimate was based on the following calculation: 5,823 hours + 2,184 hours = 8,007 hours.

¹³¹³ This estimate was based on the following calculation: \$1,854,519 + \$695,604 = \$2,550,123.

estimate any change to the external costs associated with the proposed amendments to Form N-1A.

One commenter stated that the cost estimates under the proposal were overly optimistic, including as an example our estimated \$637 cost per fund to implement the proposed Form N-1A disclosure requirements.¹³¹⁴ As discussed above, our amendments to Form N-1A include several modifications or clarifications from the proposal that address concerns raised by commenters and that are intended, in part, to decrease implementation burdens relative to the proposal. For example, we are not adopting the proposed requirement that funds file credit agreements as exhibits to their registration statements. Furthermore, instead of a requirement for funds to disclose the exact number of days in which a fund would pay redemption proceeds, including the number of days that apply for each distribution channel of the fund, funds are required to disclose the number of days a fund reasonably expects to pay redemption proceeds and are not required to account for all distribution channels, only varied payment methods, if applicable. We believe that these modifications will increase the quality of information provided to fund shareholders about the timing of their redemption proceeds and, at the same time, reduce the likelihood that disclosures regarding such timing will be overly granular and complex for investors and overly burdensome for registrants.

We believe that certain modifications from and clarifications to the proposal that we are adopting today as well as the removal of the swing pricing disclosure requirements from this Release will generally reduce the estimated burden hours and costs associated with the adopted

¹³¹⁴

See FSR Comment Letter (noting that changes to a fund's disclosure typically involve a number of stakeholders and several rounds of drafting and review, such that costs associated with even modest changes to fund disclosure can have a serious cost component). With the exception of this comment, we did not receive comments on the estimated hour and costs burdens associated with the disclosure amendments to Form N-1A under the proposal.

amendments to Form N-1A relative to the proposal. Furthermore, we have considered the concern expressed by one commenter that the burdens and costs estimated in the proposal were overly optimistic and believe that any possible underestimates in burdens and costs expressed in the proposal have been offset by the adopted modifications that reduce such burdens. For these reasons, we believe that the amendments to Form N-1A adopted today, including modifications from the proposal, will reduce the estimated burden hours and costs stated in the Proposing Release.

We estimate that each fund will incur a one-time burden of an additional hour, rather than 2 hours, to draft and finalize the required disclosure and amend its registration statement,¹³¹⁵ but at a time cost of an additional \$324, rather than \$637,¹³¹⁶ based on updated data concerning funds and fund personnel salaries and the removal of the swing pricing disclosure requirement. In aggregate, we estimate that funds will incur a one-time burden of an additional 11,114 hours,¹³¹⁷ rather than 17,468 hours, at a time cost of an additional \$3,600,936,¹³¹⁸ rather than \$5,563,558, to comply with the Form N-1A disclosure requirements as adopted. We estimate that amortizing the one-time burden over a three-year period will result in an average annual burden of an additional 3,705 hours, rather than 5,823 hours at a time cost of an additional \$1,200,312, rather than \$1,854,519.¹³¹⁹

¹³¹⁵ This estimate is based on the following calculation: 1 hour to update registration statement disclosure about redemption procedures = 1 hour.

¹³¹⁶ This estimate is based on the following calculation: 1 hour x \$324 (blended rate for a compliance attorney (\$340) and a senior programmer (\$308)) = \$324.

¹³¹⁷ This estimate was based on the following calculations: 1 hour x 11,114 funds (including money market funds and ETFs) = 11,114 hours.

¹³¹⁸ This estimate is based on the following calculation: 11,114 hours x \$324 (blended rate for a compliance attorney (\$340) and a senior programmer (\$308)) = \$3,600,936.

¹³¹⁹ This estimate is based on the following calculation: 11,114 hours ÷ 3 = 3,704.67 average annual burden hours; \$3,600,936 burden costs ÷ 3 = \$1,200,312 average annual burden cost.

In addition, we estimate that each fund will incur an ongoing burden of an additional 0.25 hours, but at a time cost of an additional \$81,¹³²⁰ each year to review and update disclosures required in response to the amendments to Form N-1A. In aggregate, we estimate that funds will incur an annual burden of an additional 2,778.50 hours,¹³²¹ at a time cost of an additional \$900,234,¹³²² to comply with the Form N-1A disclosure requirements adopted today.

Furthermore, we estimate that amortizing these one-time and ongoing hour and cost burdens over three years will result in an average annual increased burden of approximately 0.50 hours per fund,¹³²³ at a time cost of \$162 per fund.¹³²⁴

In total, we estimate that funds will incur an average annual increased burden of approximately 6,483.17 hours,¹³²⁵ at a time cost of approximately \$3,300,858,¹³²⁶ to comply with the Form N-1A disclosure requirements adopted today. We do not estimate any change to the external costs associated with these amendments to Form N-1A.

VI. FINAL REGULATORY FLEXIBILITY ACT ANALYSIS

This Final Regulatory Flexibility Analysis has been prepared in accordance with section 3 of the Regulatory Flexibility Act (“RFA”).¹³²⁷ It relates to: new rule 22e-4; new Rule 30b-10, Form N-LIQUID; and amendments to Form N-1A, Form N-PORT, and Form N-CEN. We

¹³²⁰ This estimate is based on the following calculations: 0.25 hours x \$324 (blended hourly rate for a compliance attorney (\$340) and a senior programmer (\$308)) = \$81.

¹³²¹ This estimate is based on the following calculation: 0.25 hours x 11,114 funds = 2,778.50 hours.

¹³²² This estimate is based on the following calculation: 2,778.50 hours x \$324 (blended hourly rate for a compliance attorney (\$340) and a senior programmer (\$308)) = \$900,234.

¹³²³ This estimate is based on the following calculation: 1 burden hour (year 1) + 0.25 burden hour (year 2) + 0.25 burden hour (year 3) ÷ 3 = 0.50 hours.

¹³²⁴ This estimate is based on the following calculation: \$324 (year 1 monetized burden hours) + \$81 (year 2 monetized burden hours) + \$81 (year 3 monetized burden hours) ÷ 3 = \$162.

¹³²⁵ This estimate is based on the following calculation: 3,704.67 hours + 2,778.50 hours = 6,483.17 hours.

¹³²⁶ This estimate is based on the following calculation: \$1,200,312 + \$900,234 = \$2,100,546.

¹³²⁷ 5 U.S.C. 604.

prepared an Initial Regulatory Flexibility Analysis (“IRFA”) in conjunction with the Proposing Release in September 2015.¹³²⁸ The Proposing Release included, and solicited comment, on the IRFA. In the Proposing Release, we also proposed amendments to rule 22c-1, rule 31a-2, and Form N-1A as well as additions to Form N-CEN regarding the use of swing pricing.¹³²⁹

A. Need for the Rule

With the exception of money market funds, open-end funds (including both in-kind and other ETFs) and UITs are not currently subject to requirements under the federal securities laws or Commission rules that specifically require them to manage their liquidity risk,¹³³⁰ although there are guidelines stating that such entities should limit their investments in illiquid assets.¹³³¹ In addition, funds are only subject to limited disclosure and reporting requirements concerning a fund’s liquidity risk and risk management.¹³³² We understand that funds today engage in a variety of different practices, with varying levels of comprehensiveness, for classifying the liquidity of their portfolio investments, assessing and managing liquidity risk, and disclosing information about their liquidity risk, redemption practices, and liquidity risk management practices to investors.¹³³³

The Commission is adopting a new rule, amendments to current rules, a new form and amendments to current forms to promote effective liquidity risk management throughout the open-end fund industry and thereby reduce the risk that funds will be unable to meet redemption obligations and mitigate dilution of the interests of fund shareholders. The changes also seek to

¹³²⁸ See Proposing Release, *supra* footnote 9, at section VI.

¹³²⁹ See Proposing Release, *supra* footnote 9, at section III.G.1.b.

¹³³⁰ See *supra* sections II.D and IV.B.1.a.

¹³³¹ See *id.*

¹³³² See *supra* sections II.D and IV.B.1.c.

¹³³³ See *supra* sections II.D, IV.B.1.a and IV.B.1.c.

enhance disclosure regarding fund liquidity and redemption practices. Specifically, a primary objective of these liquidity regulations is to promote shareholder protection by elevating the overall quality of liquidity risk management across the fund industry, as well as by increasing transparency of funds' liquidity risks and risk management. The liquidity regulations are also intended to lessen the possibility of investor dilution created by insufficient liquidity risk management. Finally, the liquidity regulations are meant to address recent industry developments that have underscored the significance of funds' liquidity risk management practices. Each of these objectives is discussed in detail in section III above.

B. Significant Issues Raised by Public Comment

In the Proposing Release, we requested comment on the IRFA, requesting in particular comment on the number of small entities that would be subject to the proposed liquidity regulations and whether the proposed liquidity regulations would have any effects that have not been discussed. We requested that commenters describe the nature of any effects on small entities subject to the proposed liquidity regulations and provide empirical data to support the nature and extent of such effects. We also requested comment on the estimated compliance burdens of the proposed liquidity regulations and how they would affect small entities. We received a number of comments related to the impact of our proposal on small entities, with some commenters expressing concern that liquidity risk management programs, as proposed, would require building entirely new systems and/or maintaining parallel system, which certain of the commenters believed could generate disproportionate burdens on small funds.¹³³⁴ We discuss these costs in detail in section V., above, and conclude that such costs are justified by the benefits of liquidity risk management programs.

¹³³⁴

See Dechert Comment Letter; ICI Comment Letter I; SIFMA Comment Letter I; T. Rowe Comment Letter.

C. Small Entities Subject to the Rule

An investment company is a small entity if, together with other investment companies in the same group of related investment companies, it has net assets of \$50 million or less as of the end of its most recent fiscal year.¹³³⁵ Commission staff estimates that, as of December 31, 2015, there were 78 small open-end investment companies (within 76 fund complexes) that would be considered small entities; this number includes open-end ETFs.

D. Projected Reporting, Recordkeeping, and Other Compliance Requirements

1. New Rule 22e-4

Rule 22e-4 generally requires each registered open-end fund (but not including money market funds), including each small entity, to establish a written liquidity risk management program.¹³³⁶ A fund's board will be required to approve the fund's liquidity risk management program, as well as the fund's designation of the fund's investment adviser or officers as responsible for administering the fund's liquidity risk management program, and review a report on the program's effectiveness no less than annually. In addition, for funds that do not primarily hold assets that are highly liquid investments, the new rule requires the determination of and periodic review of the fund's highly liquid investment minimum and establishment of policies and procedures for responding to a shortfall of the fund's highly liquid investment minimum, which includes reporting to the fund's board of directors. The new rule also requires a fund's liquidity risk management program to incorporate certain specified elements.¹³³⁷ Rule 22e-4 includes tailored liquidity risk management program requirements for ETFs, intended to target ETFs' unique risks while eliminating requirements that are largely inapplicable to ETFs that

¹³³⁵ See rule 0-10(a) under the Act.

¹³³⁶ See *supra* footnote 113.

¹³³⁷ See *id.* and accompanying and preceding text.

redeem in kind.¹³³⁸ The rule also includes liquidity-related requirements for UITs, intended to recognize the unmanaged structure of UITs while requiring that principal underwriters or depositors of UITs to determine, on or before the date of the initial deposit of portfolio securities into a UIT, that the portion of the illiquid investments that the UIT holds or will hold at the date of deposit that are assets is consistent with the redeemable nature of the securities that it issues.¹³³⁹ Rule 22e-4 also includes certain recordkeeping requirements.¹³⁴⁰ We estimate that 76 fund complexes are small fund groups that have funds that would be required to comply with the proposed liquidity risk management program requirement.¹³⁴¹ As discussed above, we estimate that a fund complex would incur one-time costs ranging from \$0.8 million to \$10.2 million, depending on the fund's particular circumstances and current liquidity risk management practices, to establish and implement a liquidity risk management program.¹³⁴² We further estimate that a fund complex would incur ongoing annual costs associated with proposed rule 22e-4 that would range from \$40,000 to \$3.3 million.¹³⁴³ Finally, we estimate that any UITs launched after the rule's compliance date will incur one-time costs associated with rule 22e-4 of \$8,000 to \$52,000.¹³⁴⁴

2. *Disclosure and Reporting Requirements Regarding Liquidity Risk and Liquidity Risk Management*

New Form N-LIQUID, along with amendments to Form N-1A, Form N-PORT, and Form

¹³³⁸ See id.

¹³³⁹ See *supra* section III.K.

¹³⁴⁰ See *supra* section III.I.

¹³⁴¹ Commission staff estimate as of December 31, 2015.

¹³⁴² See *supra* paragraph accompanying footnote 1101.

¹³⁴³ See *supra* paragraph accompanying footnote 1104.

¹³⁴⁴ See *supra* footnote 1116 and accompanying text.

N-CEN are intended to enhance fund disclosure and reporting regarding a fund's redemption practices, portfolio liquidity, and certain liquidity risk management practices. New Form N-LIQUID will require a fund to confidentially notify the Commission if the fund's illiquid investment holdings exceed 15% of its net assets or if its highly liquid investments decline below its minimum for more than a brief period of time.¹³⁴⁵ The amendments to Form N-1A require funds to disclose additional information concerning the procedures for redeeming a fund's shares.¹³⁴⁶ The amendments to Forms N-PORT and N-CEN require reporting of certain information regarding the liquidity of a fund's holdings and the fund's liquidity risk management practices. We estimate that 78 funds are small entities that would be required to comply with the proposed disclosure and reporting requirements.¹³⁴⁷

As discussed above, for each fund, including a fund that is a small entity, when filing a report on Form N-LIQUID, staff estimates that a fund will spend on average approximately 4 hours¹³⁴⁸ of an in-house attorney's time and one¹³⁴⁹ hour of an in-house accountant's time to prepare, review, and submit Form N-LIQUID, at a total time cost of \$1,745.¹³⁵⁰ Staff estimates that there will be no external costs associated with this collection of information.

As discussed above, we estimate that each fund, including funds that are small entities, would incur a one-time burden of an additional 1 hour,¹³⁵¹ at a time cost of an additional \$324 (plus printing

¹³⁴⁵ See *supra* section III.L.2.

¹³⁴⁶ See *supra* section III.L.1.

¹³⁴⁷ Commission staff estimate as of December 31, 2015.

¹³⁴⁸ See *supra* footnote 1285 and accompanying text.

¹³⁴⁹ *Id.*

¹³⁵⁰ See *supra* footnote 1287 and accompanying text.

¹³⁵¹ See *supra* footnote 1302 and accompanying text.

costs), to comply with the amendments to Form N-1A.¹³⁵² We also estimate that each fund, including small entities, would incur an ongoing burden of an additional 0.25 hours, at a time cost of approximately an additional \$81 each year associated with compliance with the amendments to Form N-1A.¹³⁵³ We do not estimate any change to the external costs associated with the proposed amendments to Form N-1A.

We also estimate that each fund that files reports on Form N-PORT (35% of funds) in house will require an average of approximately 6 burden hours to compile (including review of the information), tag, and electronically file the additional liquidity information required on Form N-PORT for the first time and an average of approximately 2 burden hours, rather than 1 burden hour, for subsequent filings. Therefore, we estimate the per fund average annual hour burden associated with the incremental changes to Form N-PORT as a result of the added liquidity information for these funds would be an additional 28 hours for the first year and an additional 24 hours for each subsequent year.¹³⁵⁴ Amortized over three years, the average annual hour burden would be an additional 25.33 hours per fund.¹³⁵⁵ We further estimate that 65% of funds will retain the services of a third party to provide data aggregation, validation and/or filing services as part of the preparation and filing of reports on Form N-PORT on the fund's behalf. For these funds, we estimate that each fund will require an average of approximately 8 hours to compile and review the added liquidity-related information with the service provider prior to electronically filing the report for the first time and an average of 1 burden hour for subsequent filings. Therefore, we estimate the per fund average annual hour burden associated with the

¹³⁵² See *supra* footnote 1303 and accompanying text.

¹³⁵³ See *supra* footnote 1307 and accompanying text.

¹³⁵⁴ See *supra* footnote 1269 and accompanying paragraph.

¹³⁵⁵ See *supra* footnote 1270 and accompanying text.

liquidity-related changes to Form N-PORT for these funds would be an additional 19 hours for the first year¹³⁵⁶ and an additional 12 hours for each subsequent year.¹³⁵⁷ Amortized over three years, the average aggregate annual hour burden would be an additional 14.33 hours per fund.¹³⁵⁸ We further estimate that the total external annual cost burden of compliance with the information collection requirements of Form N-PORT will be \$9,118 per fund.¹³⁵⁹

As discussed above, we also estimate that the average annual hour burden per additional response to Form N-CEN as a result of the adopted additions to Form N-CEN will be one hour per fund per year.¹³⁶⁰ We do not estimate any change to the external costs associated with proposed Form N-CEN.¹³⁶¹

E. Agency Action to Minimize Effect on Small Entities

The Regulatory Flexibility Act directs the Commission to consider significant alternatives that would accomplish the stated objective, while minimizing any significant impact on small entities. Alternatives in this category would include: (i) establishing different compliance or reporting standards that take into account the resources available to small entities; (ii) clarifying, consolidating, or simplifying the compliance requirements under the rules and amendments for small entities; (iii) using performance rather than design standards; and (iv) exempting small entities from coverage of the rules and amendments, or any part of the rules and amendments.

The Commission does not presently believe that these rules and amendments would

¹³⁵⁶ See *supra* footnote 1271 and accompanying text.

¹³⁵⁷ See *supra* footnote 1272 and accompanying text.

¹³⁵⁸ See *supra* footnote 1273 and accompanying text.

¹³⁵⁹ See *supra* footnote 1275 and accompanying text.

¹³⁶⁰ See *supra* footnote 1298 and accompanying paragraph.

¹³⁶¹ *Id.*

require the establishment of special compliance requirements or timetables for small entities. These rules and amendments are specifically designed to reduce any unnecessary burdens on all funds (including small funds). To establish special compliance requirements or timetables for small entities may in fact disadvantage small entities by encouraging larger market participants to focus primarily on the needs of larger entities when making the operational changes envisioned by certain of the rules and amendments, and possibly ignoring the needs of smaller funds.

With respect to further clarifying, consolidating, or simplifying the compliance requirements of the rules and amendments, using performance rather than design standards, and exempting small entities from coverage of these rules and amendments or any part of the rules and amendments, we believe additional such changes would be impracticable. Small entities are as vulnerable to the risks of being unable to meet redemption obligations and of dilution of the interests of fund shareholders as larger funds. We believe that the rules and amendments are necessary to help mitigate these risks. Exempting small funds from coverage under these rules and amendments or any part of the rules and amendments could compromise the effectiveness of the rules and amendments or any part of the rules and amendments.

VII. STATUTORY AUTHORITY AND TEXT OF AMENDMENTS

The Commission is adopting new rule 22e-4 under the authority set forth in sections 22(c), 22(e), 34(b) and 38(a) of the Investment Company Act [15 U.S.C. 80a-22(c), 80a-22(e), 80a-35(b), and 80a-37(a)], the Investment Advisers Act, particularly, section 206(4) thereof [15 U.S.C. 80b-6(4)], the Exchange Act, particularly section 10(b) thereof [15 U.S.C. 78a et seq.], the Securities Act, particularly section 17(a) thereof [15 U.S.C. 77a et seq.]. The Commission is adopting amendments to Form N-1A, Form N-PORT, and Form N-CEN under the authority set

forth in the Securities Act, particularly section 19 thereof [15 U.S.C. 77a et seq.], the Trust Indenture Act, particularly, section 19 thereof [15 U.S.C. 77aaa et seq.], the Exchange Act, particularly sections 10, 15, and 23, and 35A thereof [15 U.S.C. 78a et seq.], and the Investment Company Act, particularly, sections 8, and 38 thereof [15 U.S.C. 80a et seq.].

TEXT OF RULES AND FORMS

List of Subjects

17 CFR Part 210

Investment companies, Reporting and recordkeeping requirements, Securities.

17 CFR Parts 270 and 274

Investment companies, Reporting and recordkeeping requirements, Securities.

For the reasons set out in the preamble, title 17, chapter II of the Code of Federal Regulations is amended as follows:

PART 210 - FORM AND CONTENT OF AND REQUIREMENTS FOR FINANCIAL STATEMENTS, SECURITIES ACT OF 1933, SECURITIES EXCHANGE ACT OF 1934, INVESTMENT COMPANY ACT OF 1940, INVESTMENT ADVISERS ACT OF 1940, AND ENERGY POLICY AND CONSERVATION ACT OF 1975

1. The authority citation for part 210 continues to read as follows:

Authority: 15 U.S.C. 77f, 77g, 77h, 77j, 77s, 77z-2, 77z-3, 77aa(25), 77aa(26), 77nn(25), 77nn(26), 78c, 78j-1, 78l, 78m, 78n, 78o(d), 78q, 78u-5, 78w, 78ll, 78mm, 80a-8, 80a-20, 80a-29, 80a-30, 80a-31, 80a-37(a), 80b-3, 80b-11, 7202 and 7262, unless otherwise noted.

PART 270 - RULES AND REGULATIONS, INVESTMENT COMPANY ACT OF 1940

3. The authority citation for part 270 continues to read, in part, as follows:

Authority: 15 U.S.C. 80a-1 *et seq.*, 80a-34(d), 80a-37, 80a-39, and Pub. L. 111-203,

sec. 939A, 124 Stat. 1376 (2010), unless otherwise noted.

* * * * *

4. Section 270.22e-4 is added to read as follows:

§270.22e-4 Liquidity risk management programs.

(a) *Definitions.* For purposes of this section:

(1) *Acquisition (or acquire)* means any purchase or subsequent rollover.

(2) *Business day* means any day, other than Saturday, Sunday, or any customary business holiday.

(3) *Convertible to cash* means the ability to be sold, with the sale settled.

(4) *Exchange-traded fund or ETF* means an open-end management investment company (or series or class thereof), the shares of which are listed and traded on a national securities exchange, and that has formed and operates under an exemptive order under the Act granted by the Commission or in reliance on an exemptive rule adopted by the Commission.

(5) *Fund* means an open-end management investment company that is registered or required to register under section 8 of the Act (15 U.S.C. 80a-8) and includes a separate series of such an investment company, but does not include a registered open-end management investment company that is regulated as a money market fund under § 270.2a-7 or an In-Kind ETF.

(6) *Highly liquid investment* means any cash held by a fund and any investment that the fund reasonably expects to be convertible into cash in current market conditions in three business days or less without the conversion to cash significantly changing the market value of the investment, as determined pursuant to the provisions of paragraph (b)(1)(ii) of this section.

(7) *Highly liquid investment minimum* means the percentage of the fund's net assets that the fund invests in highly liquid investments that are assets pursuant to paragraph (b)(1)(iii) of this section.

(8) *Illiquid investment* means any investment that the fund reasonably expects cannot be sold or disposed of in current market conditions in seven calendar days or less without the sale or disposition significantly changing the market value of the investment, as determined pursuant to the provisions of paragraph (b)(1)(ii) of this section.

(9) *In-Kind Exchange Traded Fund or In-Kind ETF* means an ETF that meets redemptions through in-kind transfers of securities, positions, and assets other than a *de minimis* amount of cash and that publishes its portfolio holdings daily.

(10) *Less liquid investment* means any investment that the fund reasonably expects to be able to sell or dispose of in current market conditions in seven calendar days or less without the sale or disposition significantly changing the market value of the investment, as determined pursuant to the provisions of paragraph (b)(1)(ii) of this section, but where the sale or disposition is reasonably expected to settle in more than seven calendar days.

(11) *Liquidity risk* means the risk that the fund could not meet requests to redeem shares issued by the fund without significant dilution of remaining investors' interests in the fund.

(12) *Moderately liquid investment* means any investment that the fund reasonably expects to be convertible into cash in current market conditions in more than three calendar days but in seven calendar days or less, without the conversion to cash significantly changing the market value of the investment, as determined pursuant to the provisions of paragraph (b)(1)(ii) of this section.

(13) *Person(s) designated to administer the program* means the fund or In-Kind ETF's investment adviser, officer, or officers (which may not be solely portfolio managers of the fund or In-Kind ETF) responsible for administering the program and its policies and procedures pursuant to paragraph (b)(2)(ii) of this section.

(14) *Unit Investment Trust* or *UIT* means a unit investment trust as defined in section 4(2) of the Act (15 U.S.C. 80a-4).

(b) *Liquidity Risk Management Program*. Each fund and In-Kind ETF must adopt and implement a written liquidity risk management program ("program") that is reasonably designed to assess and manage its liquidity risk.

(1) *Required program elements*. The program must include policies and procedures reasonably designed to incorporate the following elements:

(i) *Assessment, Management, and Periodic Review of Liquidity Risk*. Each fund and In-Kind ETF must assess, manage, and periodically review (with such review occurring no less frequently than annually) its liquidity risk, which must include consideration of the following factors, as applicable:

(A) The fund or In-Kind ETF's investment strategy and liquidity of portfolio investments during both normal and reasonably foreseeable stressed conditions, including whether the investment strategy is appropriate for an open-end fund, the extent to which the strategy involves a relatively concentrated portfolio or large positions in particular issuers, and the use of borrowings for investment purposes and derivatives;

(B) Short-term and long-term cash flow projections during both normal and reasonably foreseeable stressed conditions;

(C) Holdings of cash and cash equivalents, as well as borrowing arrangements and other funding sources; and

(D) For an ETF:

(i) The relationship between the ETF's portfolio liquidity and the way in which, and the prices and spreads at which, ETF shares trade, including, the efficiency of the arbitrage function and the level of active participation by market participants (including authorized participants); and

(ii) The effect of the composition of baskets on the overall liquidity of the ETF's portfolio.

(ii) *Classification.* Each fund must, using information obtained after reasonable inquiry and taking into account relevant market, trading, and investment-specific considerations, classify each of the fund's portfolio investments (including each of the fund's derivatives transactions) as a highly liquid investment, moderately liquid investment, less liquid investment, or illiquid investment. A fund must review its portfolio investments' classifications, at least monthly in connection with reporting the liquidity classification for each portfolio investment on Form N-PORT in accordance with §270.30b1-9, and more frequently if changes in relevant market, trading, and investment-specific considerations are reasonably expected to materially affect one or more of its investments' classifications.

Note to paragraph (b)(1)(ii): If an investment could be viewed as either a highly liquid investment or a moderately liquid investment, because the period to convert the investment to cash depends on the calendar or business day convention used, a fund should classify the investment as a highly liquid investment. For a discussion of considerations that may be relevant

in classifying the liquidity of the fund's portfolio investments, see Investment Company Act Release No. IC-XXXXXX (DATE).

(A) The fund may generally classify and review its portfolio investments (including the fund's derivatives transactions) according to their asset class, provided, however, that the fund must separately classify and review any investment within an asset class if the fund or its adviser has information about any market, trading, or investment-specific considerations that are reasonably expected to significantly affect the liquidity characteristics of that investment as compared to the fund's other portfolio holdings within that asset class.

(B) In classifying and reviewing its portfolio investments or asset classes (as applicable), the fund must determine whether trading varying portions of a position in a particular portfolio investment or asset class, in sizes that the fund would reasonably anticipate trading, is reasonably expected to significantly affect its liquidity, and if so, the fund must take this determination into account when classifying the liquidity of that investment or asset class.

(C) For derivatives transactions that the fund has classified as moderately liquid investments, less liquid investments, and illiquid investments, identify the percentage of the fund's highly liquid investments that it has segregated to cover, or pledged to satisfy margin requirements in connection with, derivatives transactions in each of these classification categories.

Note to paragraph (b)(1)(ii)(C): For purposes of calculating these percentages, a fund that has segregated or pledged highly liquid investments and non-highly liquid investments to cover derivatives transactions classified as moderately liquid, less liquid, or illiquid investments first should apply segregated or pledged assets that are highly liquid investments to cover these transactions, unless it has specifically identified segregated non-highly liquid investments as

covering such derivatives transactions.

(iii) *Highly Liquid Investment Minimum.*

(A) Any fund that does not primarily hold assets that are highly liquid investments must:

(1) Determine a highly liquid investment minimum, considering the factors specified in paragraphs (b)(1)(i)(A) through (E) of this section, as applicable (but considering those factors specified in paragraphs (b)(1)(i)(A) and (B) only as they apply during normal conditions, and during stressed conditions only to the extent they are reasonably foreseeable during the period until the next review of the highly liquid investment minimum). The highly liquid investment minimum determined pursuant to this paragraph may not be changed during any period of time that a fund's assets that are highly liquid investments are below the determined minimum without approval from the fund's board of directors, including a majority of directors who are not interested persons of the fund;

(2) Periodically review, no less frequently than annually, the highly liquid investment minimum; and

(3) Adopt and implement policies and procedures for responding to a shortfall of the fund's highly liquid investments below its highly liquid investment minimum, which must include requiring the person(s) designated to administer the program to report to the fund's board of directors no later than its next regularly scheduled meeting with a brief explanation of the causes of the shortfall, the extent of the shortfall, and any actions taken in response, and if the shortfall lasts more than 7 consecutive calendar days, must include requiring the person(s) designated to administer the program to report to the board within one business day thereafter with an explanation of how the fund plans to restore its minimum within a reasonable period of time.

(B) For purposes of determining whether a fund primarily holds assets that are highly liquid investments, a fund must exclude from its calculations the percentage of the fund's assets that are highly liquid investments that it has segregated to cover all derivatives transactions that the fund has classified as moderately liquid investments, less liquid investments, and illiquid investments, or pledged to satisfy margin requirements in connection with those derivatives transactions, as determined pursuant to paragraph (b)(1)(ii)(C) of this section.

(iv) *Illiquid Investments.* No fund or In-Kind ETF may acquire any illiquid investment if, immediately after the acquisition, the fund or In-Kind ETF would have invested more than 15% of its net assets in illiquid investments that are assets. If a fund or In-Kind ETF holds more than 15% of its net assets in illiquid investments that are assets:

(A) It must cause the person(s) designated to administer the program to report such an occurrence to the fund's board of directors within one business day of the occurrence, with an explanation of the extent and causes of the occurrence, and how the fund plans to bring its illiquid investments that are assets to or below 15% of its net assets within a reasonable period of time; and

(B) If the amount of the fund's illiquid investments that are assets is still above 15% of its net assets 30 days from the occurrence (and at each consecutive 30 day period thereafter), the fund or In-Kind ETF's board of directors, including a majority of directors who are not interested persons of the fund or In-Kind ETF, must assess whether the plan presented to it pursuant to paragraph (b)(1)(iv)(A) continues to be in the best interest of the fund or In-Kind ETF.

(v) *Redemptions in Kind.* A fund that engages in, or reserves the right to engage in, redemptions in kind and any In-Kind ETF must establish policies and procedures regarding how and when it will engage in such redemptions in kind.

(2) *Board Oversight.* A fund or In-Kind ETF's board of directors, including a majority of directors who are not interested persons of the fund or In-Kind ETF, must:

- (i) Initially approve the liquidity risk management program;
- (ii) Approve the designation of the person(s) designated to administer the program; and
- (iii) Review, no less frequently than annually, a written report prepared by the person(s) designated to administer the program that addresses the operation of the program and assesses its adequacy and effectiveness of implementation, including, if applicable, the operation of the highly liquid investment minimum, and any material changes to the program.

(3) *Recordkeeping.* The fund or In-Kind ETF must maintain:

- (i) A written copy of the program and any associated policies and procedures adopted pursuant to paragraphs (b)(1) through (b)(2) of this section that are in effect, or at any time within the past five years were in effect, in an easily accessible place;

- (ii) Copies of any materials provided to the board of directors in connection with its approval under paragraph (b)(2)(i) of this section, and materials provided to the board of directors under paragraph (b)(2)(iii) of this section, for at least five years after the end of the fiscal year in which the documents were provided, the first two years in an easily accessible place; and

- (iii) If applicable, a written record of the policies and procedures related to how the highly liquid investment minimum, and any adjustments thereto, were determined, including assessment of the factors incorporated in paragraphs (b)(1)(iii)(A) through (B) of this section and any materials provided to the board pursuant to paragraph (b)(1)(iii)(A)(3) of this section, for a period of not less than five years (the first two years in an easily accessible place) following the determination of, and each change to, the highly liquid investment minimum.

(c) *UIT Liquidity*. On or before the date of initial deposit of portfolio securities into a registered UIT, the UIT's principal underwriter or depositor must determine that the portion of the illiquid investments that the UIT holds or will hold at the date of deposit that are assets is consistent with the redeemable nature of the securities it issues, and must maintain a record of that determination for the life of the UIT and for five years thereafter.

* * * * *

5. Section 270.30b1-10 is added to read as follows:

§270.30b1-10 Current report for open-end management investment companies.

Every registered open-end management investment company, or series thereof but not a fund that is regulated as a money market fund under § 270.2a-7, that experiences any event specified on Form N-LIQUID, must file with the Commission a current report on Form N-LIQUID within the period specified in that form.

PART 274 - FORMS PRESCRIBED UNDER THE INVESTMENT COMPANY ACT OF 1940

6. The general authority citation for part 274 continues to read, in part, as follows, and the sectional authorities for §§274.101 and 274.130 are removed:

Authority: 15 U.S.C. 77f, 77g, 77h, 77j, 77s, 78c(b), 78l, 78m, 78n, 78o(d), 80a-8, 80a-24, 80a-26, 80a-29, and Pub. L. 111-203, sec. 939A, 124 Stat. 1376 (2010), unless otherwise noted.

* * * * *

7. Amend Form N-1A (referenced in 274.11A) by:

- a. In General Instruction A. Definitions, revising the definition of Exchange-Trade Fund;

b. In Item 11 removing paragraph (c)(3) and redesignating paragraphs (c)(4), (c)(5), (c)(6) and (c)(7) as paragraphs (c)(3), (c)(4), (c)(5) and (c)(6), respectively; and

c. In Item 11 adding new paragraph (c)(7) and paragraph (c)(8);

The revisions and additions read as follows:

Note: The text of Form N-1A does not, and this amendment will not, appear in the Code of Federal Regulations.

Form N-1A

* * * * *

General Instructions.

A. Definitions * * *

“Exchange-Traded Fund” means a Fund or Class, the shares of which are listed and traded on a national securities exchange, and that has formed and operates under an exemptive order granted by the Commission or in reliance on an exemptive rule adopted by the Commission.

* * * * *

Item 11. Shareholder Information

(a) * * *

(c) * * *

(7) The number of days following receipt of shareholder redemption requests in which the fund typically expects to pay out redemption proceeds to redeeming shareholders. If the number of days differs by method of payment (*e.g.*, check, wire, automated clearing house), then disclose the typical number of days or estimated range of days that the fund expects it will take to pay out redemptions proceeds for each method used.

(8) The methods that the fund typically expects to use to meet redemption requests, and whether those methods are used regularly, or only in stressed market conditions (*e.g.*, sales of portfolio assets, holdings of cash or cash equivalents, lines of credit, interfund lending, and/or ability to redeem in kind).

* * * * *

8. Amend Form N-CEN [(referenced in §274.101), as published elsewhere in this issue by:

- a. In Part C, adding Item C.20; and
- b. In Part E, adding Item E.5.

The additions read as follows:

FORM N-CEN
ANNUAL REPORT FOR REGISTERED INVESTMENT COMPANIES

* * * * *

Part C. Additional Questions for Management Investment Companies

* * *

Item C.20. Lines of credit, interfund lending, and interfund borrowing. For open-end management investment companies, respond to the following:

- a. Does the Fund have available a line of credit? [Yes/No] If yes, for each line of credit, provide the information requested below:

- i. Is the line of credit a committed or uncommitted line of credit?

[committed/uncommitted]

- ii. What size is the line of credit? [insert dollar amount]

- iii. With which institution(s) is the line of credit? [list name(s)]

iv. Is the line of credit just for the Fund, or is it shared among multiple funds?

[sole/shared]

1. If shared, list the names of other funds that may use the line of credit. [list names and SEC File numbers]

v. Did the Fund draw on the line of credit this period? [Yes/No]

vi. If the Fund drew on the line of credit during this period, what was the average amount outstanding when the line of credit was in use? [insert dollar amount]

vii. If the Fund drew on the line of credit during this period, what was the number of days that the line of credit was in use? [insert amount]

b. Did the Fund engage in interfund lending? [Yes/No] If yes, for each loan provide the information requested below:

i. What was the average amount of the interfund loan when the loan was outstanding?
[insert dollar amount.]

ii. What was the number of days that the interfund loan was outstanding? [insert amount]

c. Did the Fund engage in interfund borrowing? [Yes/No] If yes, for each loan provide the information requested below:

i. What was the average amount of the interfund loan when the loan was outstanding?
[insert dollar amount.]

ii. What was the number of days that the interfund loan was outstanding? [insert amount]

* * * * *

Part E. Additional Questions for Exchange-Traded Funds and Exchange-Traded Managed Funds

* * *

Item E.5.

* * *

In-Kind ETF. Is the Fund an “In-Kind Exchange-Traded Fund” as defined in rule 22e-4 under the Act ? [Y/N]

* * * * *

9. Modify Form N-PORT (referenced in § 274.150), as published elsewhere in this issue by:

- a. In the General Instructions E. Definitions, adding definitions of “Highly Liquid Investment Minimum” and “Illiquid Investment” in alphabetical order;
- b. In the General Instructions, revising the second paragraph of F. Public Availability;
- c. In Part B, adding Item B.7 and Item B.8; and
- d. In Part C, adding Item C.7.

The revisions and additions read as follows:

FORM N-PORT MONTHLY PORTFOLIO INVESTMENTS REPORT

* * * * *

E. Definitions

* * *

“Highly Liquid Investment Minimum” has the meaning defined in rule 22e-4(a)(7).

“Illiquid Investment” has the meaning defined in rule 22e-4(a)(8).

* * * * *

F. Public Availability

* * *

The SEC does not intend to make public the information reported on Form N-PORT for the first and second months of each Fund's fiscal quarter that is identifiable to any particular Fund or adviser, or any information reported with regards to a Fund's Highly Liquid Investment Minimum (Item B.7 of this Form), country of risk and economic exposure (Item C.5.b), delta (Items C.9.f.5, C.11.c.vii, or C.11.g.iv), liquidity classification for portfolio investments (Item C.7), or miscellaneous securities (Part D of this Form), or explanatory notes related to any of those topics (Part E) that is identifiable to any particular Fund or adviser. However, the SEC may use information reported on this Form in its regulatory programs, including examinations, investigations, and enforcement actions.

* * * * *

Part B: Information About the Fund

* * *

Item B.7 Highly Liquid Investment Minimum Information.

- a. If applicable, provide the Fund's current Highly Liquid Investment Minimum.
- b. If applicable, provide the number of days that the Fund's holdings in Highly Liquid Investments fell below the Fund's Highly Liquid Investment Minimum during the reporting period.
- c. Did the Fund's Highly Liquid Investment Minimum change during the reporting period? [Y/N]
 1. If yes, provide any Highly Liquid Investment Minimums set by the fund during the reporting period.

Item B.8 Liquidity aggregate classification information. For portfolio investments of open-end management investment companies, provide the following information:

- a. The aggregate percentage of investments that are assets (excluding any investments that are reflected as liabilities on the Fund's balance sheet) compared to total investments that are assets of the Fund for each of the following categories as specified in rule 22e-4:
 1. Highly Liquid Investments
 2. Moderately Liquid Investments
 3. Less Liquid Investments
 4. Illiquid Investments
- b. Derivatives Transactions. The percentage of the Fund's highly liquid investments that it has segregated to cover or pledged to satisfy margin requirements in connection with derivatives transactions that are classified as:
 1. Moderately Liquid Investments
 2. Less Liquid Investments

3. Illiquid Investments

* * *

Part C: Schedule of Portfolio Investments

* * *

Item C.7. Liquidity classification information. For portfolio investments of open-end management investment companies, provide the liquidity classification for each portfolio investment among the following categories as specified in rule 22e-4:

1. Highly Liquid Investments
2. Moderately Liquid Investments
3. Less Liquid Investments
4. Illiquid Investments

* * * * *

14. Section [274.____] is added to read as follows:

§[274.____] Form N-LIQUID, Current report, open-end investment company liquidity

This form shall be used by registered open-end management investment companies, or series thereof, but not including a company or series thereof that is regulated as a money market fund under §270.2a-7 of this chapter, to file reports pursuant to §270.30b1-10 of this chapter.

Note: The text of Form N-LIQUID will not appear in the *Code of Federal Regulations*.

UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
WASHINGTON, D.C. 20549

**FORM N-LIQUID
CURRENT REPORT
OPEN-END MANAGEMENT INVESTMENT COMPANY LIQUIDITY**

Form N-LIQUID is to be used by a registered open-end management investment company, or series thereof (“fund”), under the Investment Company Act of 1940 [15 U.S.C. 80a] (“Act”) but not including a fund that is regulated as a money market fund under rule 2a-7 under the Act (17 CFR 270.2A-7), to file current reports with the Commission pursuant to [rule 30b1-10] under the Act [(17 CFR 270.30b1-10)]. The Commission may use the information provided on Form N-LIQUID in its regulatory, disclosure review, inspection, and policymaking roles.

GENERAL INSTRUCTIONS

A. Rules as to Use of Form N-LIQUID.

(1) Form N-LIQUID is the reporting form that is to be used for current reports of open-end management investment companies (“registrants”) required by section 30(b) of the Act and rule 30b1-10 under the Act. The Commission does not intend to make public information reported on Form N-LIQUID that is identifiable to any particular registrant, although the Commission may use Form N-LIQUID information in an enforcement action.

(2) Unless otherwise specified, a report on this Form N-LIQUID is required to be filed, as applicable, within one business day of the occurrence of the event specified in Parts B – D of this form. If the event occurs on a Saturday, Sunday, or holiday on which the Commission is not open for business, then the one business day period shall begin to run on, and include, the first business day thereafter.

B. Application of General Rules and Regulations

The General Rules and Regulations under the Act contain certain general requirements that are applicable to reporting on any form under the Act. These general requirements should be carefully read and observed in the preparation and filing of reports on this form, except that any provision in the form or in these instructions shall be controlling.

C. Information to Be Included in Report Filed on Form N-LIQUID

Upon the occurrence of the event specified in Parts B – D of Form N-LIQUID, a registrant must file a report on Form N-LIQUID that includes information in response to each of the items in Part A of the form, as well as each of the items in the applicable Parts B – D of the Form.

D. Filing of Form N-LIQUID

A fund must file Form N-LIQUID in accordance with rule 232.13 of Regulation S-T (17 CFR Part 232). Form N-LIQUID must be filed electronically using the Commission’s Electronic Data Gathering, Analysis and Retrieval System (“EDGAR”).

E. Paperwork Reduction Act Information

A registrant is not required to respond to the collection of information contained in Form N-LIQUID unless the form displays a currently valid Office of Management and Budget (“OMB”) control number. Please direct comments concerning the accuracy of the information collection burden estimate and any suggestions for reducing the burden to the Secretary, Securities and Exchange Commission, 100 F Street, NE, Washington, DC 20549-1090. The OMB has reviewed this collection of information under the clearance requirements of 44 U.S.C. 3507.

F. Definitions

References to sections and rules in this Form N-LIQUID are to the Investment Company Act (15 U.S.C 80a), unless otherwise indicated. Terms used in this Form N-LIQUID have the same meaning as in the Investment Company Act or rule 22e-4 under the Investment Company Act, unless otherwise indicated. In addition, as used in this Form N-LIQUID, the term registrant means the registrant or a separate series of the registrant.

UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
WASHINGTON, D.C. 20549

FORM N-LIQUID
CURRENT REPORT
OPEN-END MANAGEMENT INVESTMENT COMPANY LIQUIDITY

PART A. General Information

- Item A.1.** Report for [mm/dd/yyyy].
- Item A.2.** CIK Number of registrant.
- Item A.3.** EDGAR Series Identifier.
- Item A.4.** Securities Act File Number.
- Item A.5.** Provide the name, e-mail address, and telephone number of the person authorized to receive information and respond to questions about this Form N-LIQUID.

PART B. Above 15% Illiquid Investments

If more than 15 percent of the registrant's net assets are, or become, illiquid investments that are assets as defined in rule 22e-4, then report the following information:

- Item B.1.** Date(s) on which the registrant's illiquid investments that are assets exceeded 15 percent of its net assets.
- Item B.2.** The current percentage of the registrant's net assets that are illiquid investments that are assets.
- Item B.3.** Identification of Illiquid investments. For each investment that is an asset that is held by the registrant that is considered illiquid, disclose (1) the name of the issuer, the title of the issue or description of the investment, the CUSIP (if any), and at least one other identifier, if available (*e.g.*, ISIN, Ticker, or other unique identifier (if ticker

and ISIN are not available)) (indicate the type of identifier used), and (2) the percentage of the fund's net assets attributable to that investment.

PART C. At or Below 15% Illiquid Investments

If a registrant that has filed part B of Form N-LIQUID determines that its holdings in illiquid investments that are assets have changed to be less than or equal to 15 percent of the registrant's net assets, then report the following information:

Item C.1. Date(s) on which the registrant's illiquid investments that are assets fell to or below 15 percent of net assets.

Item C.2. The current percentage of the registrant's net assets that are illiquid investments that are assets.

PART D. Assets that are Highly Liquid Investments Below the Highly Liquid Investment Minimum

If a registrant's holdings in assets that are highly liquid investments fall below its highly liquid investment minimum for more than 7 consecutive calendar days, then report the following information:

Item D.1. Date(s) on which the registrant's holdings of assets that are highly liquid investments fell below the fund's highly liquid investment minimum.

SIGNATURES

Pursuant to the requirements of the Investment Company Act of 1940, the registrant has duly

caused this report to be signed on its behalf by the undersigned hereunto duly authorized.

(Registrant)

Date _____

(Signature)*

*Print name and title of the signing officer under his/her signature.

By the Commission.

Dated: October 13, 2016

**Brent J. Fields
Secretary**

EXHIBIT 3

Conformed to Federal Register Version

SECURITIES AND EXCHANGE COMMISSION

17 CFR Parts 270 and 274

[Release Nos. 33-11130; IC-34746; File No. S7-26-22]

RIN 3235-AM98

Open-End Fund Liquidity Risk Management Programs and Swing Pricing; Form N-PORT Reporting

AGENCY: Securities and Exchange Commission.

ACTION: Proposed rule.

SUMMARY: The Securities and Exchange Commission (“Commission”) is proposing amendments to its current rules for open-end management investment companies (“open-end funds”) regarding liquidity risk management programs and swing pricing. The proposed amendments are designed to improve liquidity risk management programs to better prepare funds for stressed conditions and improve transparency in liquidity classifications. The amendments are also designed to mitigate dilution of shareholders’ interests in a fund by requiring any open-end fund, other than a money market fund or exchange-traded fund, to use swing pricing to adjust a fund’s net asset value (“NAV”) per share to pass on costs stemming from shareholder purchase or redemption activity to the shareholders engaged in that activity. In addition, to help operationalize the proposed swing pricing requirement, and to improve order processing more generally, the Commission is proposing a “hard close” requirement for these funds. Under this requirement, an order to purchase or redeem a fund’s shares would be executed at the current day’s price only if the fund, its designated transfer agent, or a registered securities clearing agency receives the order before the pricing time as of which the fund calculates its NAV. The Commission also is proposing amendments to reporting and disclosure requirements on Forms

N-PORT, N-1A, and N-CEN that apply to certain registered investment companies, including registered open-end funds (other than money market funds), registered closed-end funds, and unit investment trusts. The proposed amendments would require more frequent reporting of monthly portfolio holdings and related information to the Commission and the public, amend certain reported identifiers, and make other amendments to require additional information about funds' liquidity risk management and use of swing pricing.

DATES: Comments should be received on or before February 14, 2023.

ADDRESSES: Comments may be submitted by any of the following methods:

Electronic comments:

- Use the Commission's internet comment form (<https://www.sec.gov/rules/submitcomments.htm>); or
- Send an email to rule-comments@sec.gov. Please include File Number S7-26-22 on the subject line.

Paper comments:

- Send paper comments to Vanessa A. Countryman, Secretary, Securities and Exchange Commission, 100 F Street NE, Washington, DC 20549-1090.

All submissions should refer to File Number S7-26-22. This file number should be included on the subject line if email is used. To help the Commission process and review your comments more efficiently, please use only one method of submission. The Commission will post all comments on the Commission's website (<https://www.sec.gov/rules/proposed.shtml>). Comments are also available for website viewing and printing in the Commission's Public Reference Room, 100 F Street NE, Washington, DC 20549, on official business days between the hours of 10 a.m. and 3 p.m. Operating conditions may limit access to the Commission's

Public Reference Room. All comments received will be posted without change. Persons submitting comments are cautioned that we do not redact or edit personal identifying information from comment submissions. You should submit only information that you wish to make available publicly.

Studies, memoranda, or other substantive items may be added by the Commission or staff to the comment file during this rulemaking. A notification of the inclusion in the comment file of any such materials will be made available on our website. To ensure direct electronic receipt of such notifications, sign up through the “Stay Connected” option at www.sec.gov to receive notifications by email.

FOR FURTHER INFORMATION CONTACT: Mykaila DeLesDernier, Y. Rachel Kuo, James Maclean, Nathan R. Schuur, Senior Counsels; Angela Mokodean, Branch Chief; Brian M. Johnson, Assistant Director, at (202) 551-6792 or IM-Rules@sec.gov, Investment Company Regulation Office, Division of Investment Management, Securities and Exchange Commission, 100 F Street NE, Washington, DC 20549-8549.

SUPPLEMENTARY INFORMATION: The Commission is proposing to amend the following rules and forms:

Commission Reference		CFR Citation (17 CFR)
Investment Company Act of 1940 (“Act” or “Investment Company Act”) ¹	Rule 22c-1	§ 270.22c-1
	Rule 22e-4	§ 270.22e-4
	Rule 30b1-9	§ 270.30b1-9
	Rule 31a-2	§ 270.31a-2
	Form N-PORT	§ 274.150
	Form N-CEN	§ 274.101

¹ 15 U.S.C. 80a-1 *et seq.* Unless otherwise noted, all references to statutory sections are to the Investment Company Act, and all references to rules under the Investment Company Act are to title 17, part 270 of the Code of Federal Regulations [17 CFR part 270].

Securities Act of 1933 (“Securities Act”) ² and Investment Company Act	Form N-1A	§§ 239.15A and 274.11A

² 15 U.S.C. 77a *et seq.*

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I. INTRODUCTION

When the Investment Company Act was enacted, a primary concern was the potential for dilution of shareholders’ interests in open-end investment companies.³ In addition, the ability of shareholders to redeem their shares in an investment company on demand is a defining feature of open-end investment funds.⁴ Section 22 of the Act reflects these concerns and priorities. For example, section 22(c) gives the Commission broad powers to regulate the pricing of redeemable securities for the purpose of eliminating or reducing so far as reasonably practicable any dilution

³ See Investment Trusts and Investment Companies: Hearings on S. 3580 before a Subcomm. of the Senate Comm. on Banking and Currency, 76th Cong., 3d Sess. (1940), at 37, 137-145 (stating that among the abuses that served as a backdrop for the Act were practices that resulted in substantial dilution of investors’ interests, including backward pricing by fund insiders to increase investment in the fund and thus enhance management fees, but causing dilution of existing investors in the fund) (statements of Commissioner Healy and Mr. Bane).

⁴ See Investment Trusts and Investment Companies: Letter from the Acting Chairman of the SEC, A Report on Abuses and Deficiencies in the Organization and Operation of Investment Trusts and Investment Companies (1939), at n.206 (“[T]he salient characteristic of the open-end investment company...was that the investor was given a right of redemption so that he could liquidate his investment at or about asset value at any time that he was dissatisfied with the management or for any other reason.”). An open-end investment company is required to redeem its securities on demand from shareholders at a price approximating their proportionate share of the fund’s net asset value (“NAV”) next calculated by the fund after receipt of such redemption request. See section 22 of the Act; rule 22c-1.

of the value of outstanding fund shares.⁵ Section 22(e) of the Act establishes a shareholder right of prompt redemption in open-end funds by requiring such funds to make payments on shareholder redemption requests within seven days of receiving the request.⁶

The open-end fund industry has grown significantly over the last six years as more Americans rely on funds to gain exposure to financial markets while having the ability to quickly redeem their investments.⁷ At the end of 2021, assets in open-end funds (excluding money market funds) were approximately \$26 trillion, having grown from about \$15 trillion at the end of 2015.⁸ An estimated 102.6 million Americans owned mutual funds at the end of 2021, up from

⁵ Section 22(c) of the Act authorizes the Commission to make rules and regulations applicable to registered investment companies and to principal underwriters of, and dealers in, the redeemable securities of any registered investment company related to the method of computing purchase and redemption prices of redeemable securities for the purpose of eliminating or reducing so far as reasonably practicable any dilution of the value of other outstanding securities of the fund or any other result of the purchase or redemption that is unfair to investors in the fund's other outstanding securities. *See also* section 22(a) of the Act (authorizing a securities association registered under section 15A of the Securities Exchange Act of 1934 ("Exchange Act") similarly to prescribe the prices at which a member may purchase or redeem an investment company's redeemable securities for the purposes of addressing dilution).

⁶ Section 22(e) of the Act provides, in part, that no registered investment company shall suspend the right of redemption or postpone the date of payment upon redemption of any redeemable security in accordance with its terms for more than seven days after tender of the security absent specified unusual circumstances.

⁷ For purposes of this release, the term "fund" or "open-end fund" generally refers to an open-end management investment company registered on Form N-1A or a series thereof, excluding money market funds, unless otherwise specified. Mutual funds and most exchange-traded funds ("ETFs") are open-end management companies registered on Form N-1A. An open-end management investment company is an investment company, other than a unit investment trust or face-amount certificate company, that offers for sale or has outstanding any redeemable security of which it is the issuer. *See* sections 4 and 5(a)(1) of the Investment Company Act [15 U.S.C. 80a-4 and 80a-5(a)(1)]. While a money market fund is an open-end management investment company, money market funds generally are not subject to the amendments we are proposing and thus are not included when we refer to "funds" or "open-end funds" in this release except where specified. Although unit investment trusts, like open-end funds, issue redeemable securities, they are not included when we refer to open-end funds in this release, unless otherwise specified.

⁸ The \$26 trillion figure is based on Form N-CEN filing data as of Dec. 2021. Of the \$26 trillion in assets, ETFs had \$5.1 trillion in assets. *See* Investment Company Liquidity Risk Management Programs, Investment Company Act Release No. 32315 (Oct. 13, 2016) [81 FR 82142 (Nov. 18, 2016)] ("Liquidity Rule Adopting Release"), at text accompanying n.1046 (estimating open-end fund assets of approximately \$15 trillion at the end of 2015).

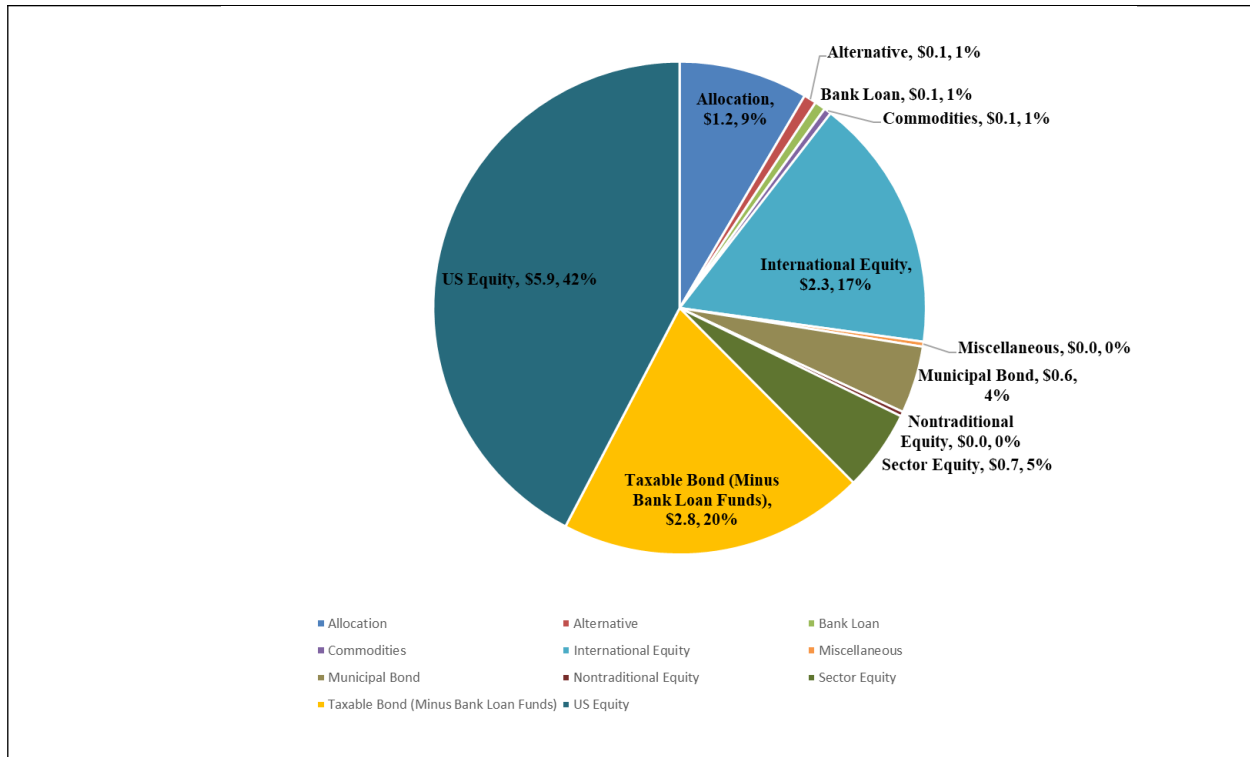
an estimated 91 million individual investors at the end of 2015.⁹ Open-end funds continue to be an important part of the financial markets, and as those markets have grown more complex, some funds are pursuing more complex investment strategies, including fixed income and alternative investment strategies focused on less liquid asset classes. For example, as of December 2021, bond funds had assets of more than \$6 trillion, funds with alternative investment strategies had about \$15 billion in assets, and bank loan funds had around \$12 billion in assets.¹⁰ Figure 1 below shows the amount of assets held by different types of open-end funds.

Figure 1: Open-End Fund Assets by Fund Type

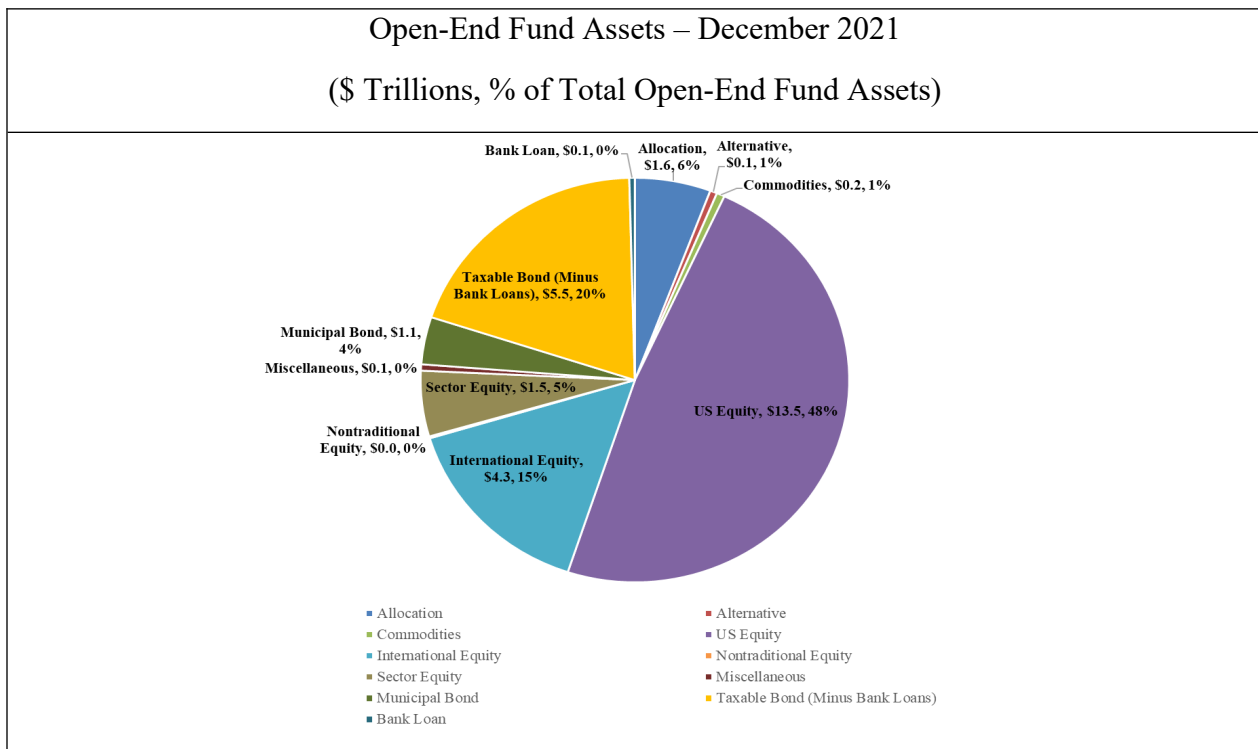
Open-End Fund Assets – December 2015 (\$ Trillions, % of Total Open-End Fund Assets)

⁹ See Investment Company Institute, 2022 Investment Company Fact Book (2022) (“2022 ICI Fact Book”), at 44, *available at* <https://www.icifactbook.org/>; Investment Company Institute, 2016 Investment Company Fact Book (2016), at 110, *available at* <https://www.ici.org/fact-book>. Retail investors hold the vast majority of mutual fund net assets. *See* 2022 ICI Fact Book, at 48 (estimating that retail investors held 88% of mutual fund assets at year end 2021). An estimated 13.9 million U.S. households held ETFs in 2021, in addition to many institutional investors. *See id.* at 83.

¹⁰ Based on Morningstar data. Unless otherwise indicated, data discussed throughout this section is based on Morningstar data. Bond funds include funds that invest in taxable bonds (approximately \$5.5 trillion in assets) and funds that invest in municipal bonds (approximately \$1 trillion in assets).



Source: Morningstar



Source: Morningstar

Without effective liquidity risk management, a fund may not be able to make timely payment on shareholder redemptions, and sales of portfolio investments to satisfy redemptions may result in the dilution of outstanding fund shares. Moreover, even when a fund is managing its liquidity effectively, the transaction costs associated with meeting redemption requests or investing the proceeds of subscriptions can create dilution for fund shareholders. These concerns are particularly heightened in times of stress or in funds invested in less liquid investments. To that end, the ability of funds to meet investor redemptions, while mitigating the impact of this redemption activity on remaining shareholders, is an important aspect of the regulatory regime for open-end funds.

Commission rules currently provide open-end funds with several tools to mitigate dilution from shareholder purchase or redemption activity and facilitate a fund's ability to meet shareholder redemptions in a timely manner. These tools include a fund's liquidity risk management program, the option to use swing pricing for certain funds, the ability to impose purchase or redemption fees, and/or the ability to redeem in kind.¹¹ In March 2020, in connection with the economic shock from the onset of the COVID-19 pandemic, U.S. open-end funds faced a significant volume of investor redemptions.¹² As investors sought to redeem fund investments to free up cash during a time of market uncertainty, open-end funds faced significant redemptions and liquidity concerns.¹³

In light of these events, we have reviewed the effectiveness of funds' current tools for managing liquidity and limiting dilution, including through staff outreach and review of

¹¹ See Liquidity Rule Adopting Release, *supra* note 8; Investment Company Swing Pricing, Investment Company Act Release No. 32316 (Oct. 13, 2016) [81 FR 82084 (Nov. 18, 2016)] ("Swing Pricing Adopting Release").

¹² See *infra* section I.B for a discussion of the fund flows for different types of open-end funds during the Mar. 2020 period.

¹³ See *infra* section I.B discussing the events of Mar. 2020.

information funds are required to report to the Commission.¹⁴ We have identified weaknesses in funds' liquidity risk management programs that can cause delays in identifying liquidity issues in stressed periods and cause funds to over-estimate the liquidity of their investments, as well as limited use of tools such as redemption fees or swing pricing that are designed to limit dilution resulting from a fund's trading of portfolio investments in response to shareholder redemptions or purchases. As a result, we are proposing amendments to enhance funds' liquidity risk management to help better prepare them for stressed market conditions and to require the use of swing pricing for certain funds in certain circumstances to limit dilution. We believe the proposed amendments would enhance open-end fund resilience in periods of market stress by promoting funds' ability to meet redemptions in a timely manner while limiting dilution of remaining shareholders' interests in the fund.

A. Open-End Funds and Existing Regulatory Framework

Open-end funds are a popular investment choice for investors seeking to gain professionally managed, diversified exposure to the capital markets while preserving liquidity.¹⁵ There are two kinds of open-end funds: mutual funds and ETFs. Open-end funds offer investors daily liquidity, but may invest in assets that cannot be liquidated quickly without significantly affecting market prices. Since the 1940s, the Commission has stated that open-end funds should maintain highly liquid portfolios and recognized that this may limit their ability to participate in certain transactions in the capital markets.¹⁶

¹⁴ The review consisted of outreach with funds, advisers, and liquidity vendors that funds use to help classify the liquidity of their investments. In addition, staff reviewed data provided on Form N-PORT, Form N-CEN, and Form-RN.

¹⁵ See Liquidity Rule Adopting Release, *supra* note 8. See also *supra* note 9 and accompanying text (discussing an estimated number of Americans who invest in mutual funds).

¹⁶ See Investment Trusts and Investment Companies: Report of the Securities and Exchange Commission (1942), at 76 ("Open-end investment companies, because of their security holders' right to compel redemption of their shares by the company at any time, are compelled to invest

While the Act requires open-end funds to pay redemptions within seven days, as a practical matter most investors expect to receive redemption proceeds in fewer than seven days. For example, many mutual funds represent in their prospectuses that they will pay redemption proceeds on the next business day after the redemption. In addition, open-end funds redeemed through broker-dealers must meet redemption requests within two business days because of rule 15c6-1 under the Exchange Act, which establishes a two-day (T+2) settlement period for trades effected by broker-dealers.¹⁷

In terms of pricing, an order to purchase or redeem fund shares must receive a price based on the current NAV next computed after receipt of the order.¹⁸ Open-end funds typically calculate their NAVs once a day. Purchase and redemption requests submitted throughout the day receive the NAV calculated at the end of that day, which is typically calculated as of 4 p.m.

their funds predominantly in readily marketable securities. Individual open-end investment companies, therefore, as presently constituted, could participate in the financing of small enterprises and new ventures only to a very limited extent.”).

¹⁷ The Commission has proposed to amend rule 15c6-1 to establish a T+1 settlement period for broker-dealer trades. *See* Shortening the Securities Transaction Settlement Cycle, Exchange Act Release No. 34-94196 (Feb. 9, 2022) [87 FR 10436 (Feb. 24, 2022)].

¹⁸ Rule 22c-1 under the Act. The process of calculating or “striking” the NAV of the fund’s shares on any given trading day is based on several factors, including the market value of portfolio securities, fund liabilities, and the number of outstanding fund shares, among others. Rule 2a-4 requires, when determining the NAV, that funds reflect changes in holdings of portfolio securities and changes in the number of outstanding shares resulting from distributions, redemptions, and repurchases no later than the first business day following the trade date. As indicated in the adopting release for rule 2a-4, this calculation method provides funds with additional time and flexibility to incorporate last-minute portfolio transactions into their NAV calculations on the business day following the trade date, rather than on the trade date. *See* Adoption of Rule 2a-4 Defining the Term “Current Net Asset Value” in Reference to Redeemable Securities Issued by a Registered Investment Company, Investment Company Act Release No. 4105 (Dec. 22, 1964) [29 FR 19100 (Dec. 30, 1964)].

ET.¹⁹ These provisions are designed to promote equitable treatment of fund shareholders when buying and selling fund shares.

A characteristic of open-end funds is that fund shareholders share the gains and losses of the fund, as well as the costs. As a result, there are circumstances in which the transaction activity of certain investors leads to costs that are distributed across all shareholders, unfairly reducing the value (or “diluting”) the interests of shareholders who did not engage in the underlying transactions. For example, while redemption orders receive the next computed NAV, the fund may incur costs on subsequent days to meet those redemptions, because the fund may engage in trading activity and make other changes in its portfolio holdings over multiple business days following the redemption order. As a result, the costs of providing liquidity to redeeming investors can be borne by the remaining investors in the fund and dilute the interests of non-redeeming shareholders. Similarly, when shareholders purchase shares in the fund, costs may arise when the fund buys portfolio investments to invest the proceeds of the purchase, and the fund and its shareholders may bear those costs in days following the purchase request, diluting the interests of the non-purchasing shareholders.

Transaction costs associated with redemptions or purchases can vary. The less liquid the fund’s portfolio holdings, the greater the liquidity costs associated with redemption and purchase activity can become and the greater the possibility of dilution effects on fund shareholders. For example, during times of heightened market volatility and wider bid-ask spreads for the fund’s underlying holdings, selling fund investments to meet investor redemptions results in greater costs to the fund. Moreover, funds also incur transaction costs outside of stressed periods.

¹⁹ Commission rules do not require that a fund calculate its NAV at, or as of, a specific time of day. Current NAV must be computed at least once daily, subject to limited exceptions, Monday through Friday, at the pricing time set by the board of directors. *See* rule 22c-1(b)(1).

Although these costs would generally be smaller than in times of heightened market volatility, they also are borne by fund investors and, particularly over time, also can result in dilution.

In times of liquidity stress, there may be incentives for shareholders to redeem fund shares quickly to avoid further losses, to redeem fund shares for cash in times of uncertainty, or to obtain a “first-mover” advantage by avoiding anticipated trading costs and dilution associated with other investors’ redemptions. This perceived advantage may lead to increasing outflows, further exacerbating the effect on remaining shareholders and incentivizing increased shareholder redemptions. Whether investors redeem because they need cash or want to capitalize on a first-mover advantage, the remaining investors in the fund may, particularly in times of stress, experience dilution of their interests in the fund.

1. Liquidity Risk Management

In 2016, the Commission adopted rule 22e-4 under the Act (the “liquidity rule”) to require open-end funds to adopt and implement liquidity risk management programs. Rule 22e-4 was designed to address concerns that open-end funds investing in less liquid securities may have difficulty meeting redemption requests without significant dilution of remaining investors’ interests in the fund.²⁰ Rule 22e-4 requires: (1) assessment, management, and periodic review of a fund’s liquidity risk; (2) classification of the liquidity of each of a fund’s portfolio investments into one of four prescribed categories—ranging from highly liquid investments to illiquid investments—including at-least-monthly reviews of these classifications; (3) determination and periodic review of a highly liquid investment minimum for certain funds; (4) limitation on illiquid investments; and (5) board oversight.

²⁰ See Liquidity Rule Adopting Release, *supra* note 8, at section II.B.

Funds are also subject to related reporting requirements. For example, funds must report the liquidity classifications of their holdings confidentially to the Commission on Form N-PORT. A fund also must immediately report to the Commission on Form N-RN and to the fund's board if its portfolio becomes more than 15% illiquid, as well as if the fund breaches a highly liquid investment minimum established as part of its liquidity risk management program for seven consecutive days.²¹ While the compliance dates for specific provisions of rule 22e-4 varied, most funds were required to be in compliance with all requirements of the rule in 2019.²²

In 2018, the Commission adopted amendments designed to improve the reporting and disclosures of liquidity information by open-end funds.²³ These amendments modified certain aspects of the liquidity framework by requiring funds to disclose information about the operation and effectiveness of their liquidity risk management program in their shareholder reports instead of requiring funds to disclose aggregate liquidity classifications publicly in Form N-PORT.²⁴ Since that time, some individual investors have stated that they care about being able to redeem but do not need narrative information about how a fund manages its liquidity, while some other commenters have suggested that aggregate liquidity classifications would be more helpful than narrative shareholder report disclosure.²⁵ We recently removed the narrative disclosure

²¹ Form N-RN was previously titled Form N-LIQUID. *See* Use of Derivatives by Registered Investment Companies and Business Development Companies, Investment Company Act Release No. 34084 (Nov. 2, 2020) [85 FR 83162 (Dec. 21, 2020)] (“Derivatives Adopting Release”).

²² Small entities were required to be in compliance with the reporting requirements under Form N-PORT by Mar. 1, 2020. *See* Investment Company Liquidity Disclosure, Investment Company Act Release No. 33142 (June 28, 2018) [83 FR 31859 (July 10, 2018)] (“2018 Liquidity Disclosure Adopting Release”).

²³ *Id.*

²⁴ The Commission also adopted amendments to Form N-PORT to allow funds classifying the liquidity of their investments pursuant to their liquidity risk management programs to report multiple liquidity classification categories for a single position under specified circumstances. *See* 2018 Liquidity Disclosure Adopting Release, *supra* note 22.

²⁵ *See infra* notes 303 to 305 and accompanying text (discussing these comments in more detail).

requirement because, in practice, it did not meaningfully augment other information already available to shareholders.²⁶

When the Commission adopted the 2018 amendments, it stated that Commission staff would continue to monitor and solicit feedback on the implementation of the liquidity framework and inform the Commission what steps, if any, the staff recommends in light of this monitoring.²⁷ The Commission stated its expectation that this evaluation would take into account at least one full year's worth of liquidity classification data from large and small entities to allow funds and the Commission to gain experience with the classification process and to allow analysis of its benefits and costs based on actual practice. As discussed below, we have had the opportunity since the adoption of these amendments to evaluate the liquidity framework while taking into account the data available to us regarding funds' liquidity risk management programs.²⁸ We discuss our evaluation of the current liquidity framework throughout this release.

2. Swing Pricing

In 2016, the Commission adopted a rule permitting registered open-end funds (except money market funds or ETFs), under certain circumstances, to use swing pricing, which is the process of adjusting the price above or below a fund's NAV per share to effectively pass on the costs stemming from shareholder purchase or redemption activity to the shareholders associated with that activity.²⁹ When a shareholder purchases or redeems fund shares, the price of those

²⁶ See Tailored Shareholder Reports for Mutual Funds and Exchange-Traded Funds; Fee Information in Investment Company Advertisements, Investment Company Act Release No. 34731 (Oct. 26, 2022) ("Tailored Shareholder Reports Adopting Release") at nn.462-472 and accompanying text.

²⁷ See 2018 Liquidity Disclosure Adopting Release, *supra* note 22, at paragraph accompanying n.125.

²⁸ See *infra* sections I.B and II.A.

²⁹ Swing Pricing Adopting Release, *supra* note 11; rule 22c-1(a)(3).

shares does not typically account for the transactions costs, including trading costs and changes in market prices, that may arise when the fund buys portfolio investments to invest proceeds from purchasing shareholders or sells portfolio investments to meet shareholder redemptions.³⁰ Swing pricing is an investor protection tool currently available to funds to mitigate potential dilution and manage fund liquidity as a result of investor redemption and purchase activity.

The 2016 swing pricing rule requires that, for funds choosing to use swing pricing, the fund's NAV is adjusted by a specified amount (the "swing factor") once the level of net purchases into or net redemptions from the fund has exceeded a specified percentage of the fund's NAV (the "swing threshold"). A fund's swing factor is permitted to take into account only the near-term costs expected to be incurred by the fund as a result of net purchases or net redemptions on that day and may not exceed an upper limit of 2% of the NAV per share. The rule also requires a fund that uses swing pricing to adopt swing pricing policies and procedures that specify the process for determining the fund's swing factor and swing threshold. The fund's board must approve the fund's swing pricing policies and procedures, the fund's swing factor upper limit, and the swing threshold. The board also must review a written report on the adequacy and effectiveness of the fund's swing pricing policies and procedures at least annually.

In the time since the adoption of the rule, no U.S. funds have implemented swing pricing. While swing pricing has been a commonly employed anti-dilution tool in Europe, including among U.S.-based fund managers that also operate funds in Europe, U.S. funds face unique operational obstacles in its implementation. When considering the adoption of the 2016 swing pricing rule, the Commission received comment letters articulating the operational issues that funds may encounter if they implemented swing pricing.³¹ In response to the concerns raised by

³⁰ See Swing Pricing Adopting Release, *supra* note 11, at section II.A.1.

³¹ See Comment Letter of BlackRock on Open-End Fund Liquidity Risk Management Programs;

commenters, the Commission adopted an extended effective date to allow for the creation of industry-wide operational solutions to facilitate the implementation of swing pricing more effectively. In that release, the Commission stated that it had directed Commission staff to review, two years after the rule's effective date, market practices associated with funds' use of swing pricing to mitigate dilution and to provide the Commission with the results of its review.³² Since that time, we have evaluated market practices associated with funds' lack of use of swing pricing, and this release reflects that evaluation. Despite over five years passing since adoption, the industry has not developed an operational solution to facilitate implementation of swing pricing, nor have individual market participants.³³

We understand that the industry has been unable to develop an operational solution to implement swing pricing largely because funds currently are unable to obtain sufficient fund flow information before they finalize their NAVs, a necessary precursor to determining whether a fund needs to use swing pricing on any particular day. Generating fund flow information involves a broad network of market participants with multiple layers of systems, including, among others, funds, transfer agents, broker-dealers, retirement plan recordkeepers, banks, and

Swing Pricing; Re-Opening of Comment Period for Investment Company Reporting Modernization Release, Investment Company Act File No. 31835 (Sep. 22, 2015) [80 FR 62274 (Oct. 15, 2015)] ("2015 Proposing Release"), File No. S7-16-15; Comment Letter of Dodge & Cox on 2015 Proposing Release, File No. S7-16-15; Comment Letter of Pacific Investment Management Company LLC on 2015 Proposing Release, File No. S7-16-15; Comment Letter of Securities Industry and Financial Markets Association on 2015 Proposing Release, File No. S7-16-15. The comment file for the 2015 Proposing Release, where these comment letters can be accessed, is *available at* <https://www.sec.gov/comments/s7-16-15/s71615.shtml>.

³² See Swing Pricing Adopting Release, *supra* note 11, at section II.A.1.

³³ After the Commission adopted the current swing pricing rule, the industry formed working groups to explore potential operational solutions to facilitate funds' ability to implement swing pricing. See Evaluating Swing Pricing: Operational Considerations, Addendum (June 2017), *available at* https://www.ici.org/system/files/attachments/ppr_17_swing_pricing_summary.pdf ("2017 ICI Swing Pricing White Paper").

the National Securities Clearing Corporation (“NSCC”). In general, many mutual funds use prices as of 4 p.m. ET (or the “pricing time”) to value the funds’ underlying holdings for purposes of computing their NAVs for the current day. This time is established by the fund’s board of directors. Typically, investors may place orders to purchase or redeem mutual fund shares with the fund’s transfer agent or with intermediaries as late as 3:59 p.m. ET for execution at that day’s NAV. When the transfer agent or an intermediary receives an order before the pricing time, that order typically receives that day’s price. An investor who submits an order after the pricing time must receive the next day’s price.

While some investors may place orders by opening an account directly with the fund’s transfer agent, we understand that the majority of mutual fund orders are placed with intermediaries, such as broker-dealers, banks, and retirement plan recordkeepers.³⁴ Some intermediaries do not transmit flow details to the fund’s transfer agent or the clearing agency until after the fund has finalized its NAV calculation and disseminated the NAV to pricing vendors, media, and intermediaries (“NAV dissemination”). NAV dissemination tends to occur between 6 p.m. ET and 8 p.m. ET. Indeed, the fund’s transfer agent or the clearing agency often do not receive a significant portion of orders until after midnight—*i.e.*, the next day.³⁵ This contributes to a mismatch between the extent of flow information funds require to implement swing pricing and the flow information funds currently have before the pricing time. For

³⁴ In 2021, an estimated 18% of U.S. households owning mutual funds purchased them directly from the mutual fund company. *See* 2022 ICI Fact Book, *supra* note 9, at Figure 7.8.

³⁵ NSCC currently is the only registered clearing agency for fund shares. A significant portion of mutual fund orders are processed through NSCC’s Fund/SERV platform. *See* Depositary Trust and Clearing Corporation 2021 Annual Report, *available at* <https://www.dtcc.com/annuals/2021/performance/dashboard> (stating that the value of transactions Fund/SERV processed in 2021 was \$8.5 trillion and the volume for this period was 261 million transactions). A part of the platform, referred to as Defined Contribution Clearance & Settlement, focuses on purchase, redemption, and exchange transactions in defined contribution and other retirement plans. This service handled a volume of nearly 154 million transactions in 2021. *See id.*

example, based on staff outreach, we understand that some funds receive only around half of their daily volume by 6 p.m. ET.³⁶ We are also aware of a separate review of funds' receipt of flow data for a quarter in 2016, which found that only 70% of actual and estimated trade flow could be delivered by 6 p.m. ET.³⁷ Without sufficient actual or estimated flow information before the fund finalizes its NAV, funds cannot implement swing pricing because the determination of whether to swing the fund's NAV depends on the size of net flows.

B. March 2020 Market Events

In March 2020, at the onset of the COVID-19 pandemic in the United States, most segments of the open-end fund market witnessed large-scale investor outflows. Investors' concerns about the potential impact of the COVID-19 pandemic led investors to reallocate their assets into cash and short-dated, near-cash investments.³⁸ The resulting outflows from many open-end funds placed pressure on these funds to generate liquidity quickly in order to meet investor redemptions. Equity and debt security prices fell as yields rose. Uncertainty throughout

³⁶ We understand based on staff outreach that the time by which a fund receives flow information varies to some extent based on the fund's investor base. For example, funds with large investments by retirement plans generally receive a larger portion of their flow information after 6 p.m. ET than other funds.

³⁷ See 2017 ICI Swing Pricing White Paper, *supra* note 33 (stating that, for instance, intermediaries trading via traditional Fund/SERV, such as traditional brokerage and managed account activity, transmit orders to the fund by 7 p.m. ET but, with system and procedural enhancements, processing and submission of orders as actual trades might be able to occur prior to 6 p.m. ET). This paper also suggested that 90% to 100% of trade flow (actual or estimated) is required to apply swing pricing between 4 p.m. and 6 p.m. ET.

³⁸ See SEC Staff Report on U.S. Credit Markets Interconnectedness and the Effects of the COVID-19 Economic Shock (Oct. 2020) ("SEC Staff Interconnectedness Report"), at 17 to 18, *available at* https://www.sec.gov/files/US-Credit-Markets_COVID-19_Report.pdf. Staff reports and other staff documents (including those cited herein) represent the views of Commission staff and are not a rule, regulation, or statement of the Commission. The Commission has neither approved nor disapproved the content of these documents and, like all staff statements, they have no legal force or effect, do not alter or amend applicable law, and create no new or additional obligations for any person.

the U.S. economy and asset-price volatility rose, and credit spreads and bid-ask spreads widened.³⁹ The large outflows open-end funds faced during March 2020, combined with the widening bid-ask spreads funds encountered when purchasing or selling portfolio investments at that time, likely contributed to dilution of the value of funds' shares for remaining investors.⁴⁰

Open-end funds are a large and important component of U.S. markets. At the end of 2019, assets in open-end funds totaled \$21 trillion.⁴¹ Fixed-income funds accounted for \$5.3 trillion, or 25% of total open-end fund assets.⁴² Bank loan assets were nearly \$100 billion, or less than 2% of total fixed-income fund assets. At the end of March 2020, following the height of the COVID-19 related market stress, assets in open-end funds (including ETFs) fell 17% (\$3.6

³⁹ See *id.*, at 3 and 6 to 8 (discussing that the market structure of certain segments of the credit market contributed to market stress in Mar. 2020, including reduced dealer inventories and reluctance to accommodate customer demand in some cases). On Apr. 1, 2020, the Board of Governors of the Federal Reserve System ("Federal Reserve") made a temporary change to its supplementary leverage ratio rule to allow banking organizations to expand their balance sheets as appropriate to continue to serve as financial intermediaries, stating that the rule's regulatory restrictions may constrain the firms' ability to continue to serve as financial intermediaries and to provide credit to households and businesses in the face of rapid deteriorations in Treasury market liquidity conditions and significant inflows of customer deposits and increased reserve levels. See Federal Reserve Board Announces Temporary Changes to its Supplementary Leverage Ratio Rule to Ease Strains in the Treasury Market Resulting from the Coronavirus and Increase Banking Organizations' Ability to Provide Credit to Households and Businesses (Apr. 1, 2020), available at <https://www.federalreserve.gov/newsevents/pressreleases/bcreg20200401a.htm>.

⁴⁰ We do not have specific data about the dilution fund shareholders experienced in Mar. 2020 because funds do not report information about their trading activity and the prices at which they purchase and sell each instrument. However, European funds experienced similar market conditions as U.S. funds and, to mitigate dilution during this period, many European funds increased their use of swing pricing and the size of their swing factors. See *infra* paragraph accompanying note 60. European funds are subject to regulatory regimes that differ in some respects from the U.S. regime for open-end funds. We are not aware, however, of differences between the regimes that would have significantly reduced dilution for U.S. funds relative to European funds during this period, such that European funds needed to use swing pricing to mitigate dilution that U.S. funds were not experiencing due to regulatory or other differences.

⁴¹ Of this amount, ETFs had assets of \$4.4 trillion and other open-end funds had assets of \$16.4 trillion. Money market funds and funds of funds are excluded from calculations relating to the size and redemptions of open-end funds.

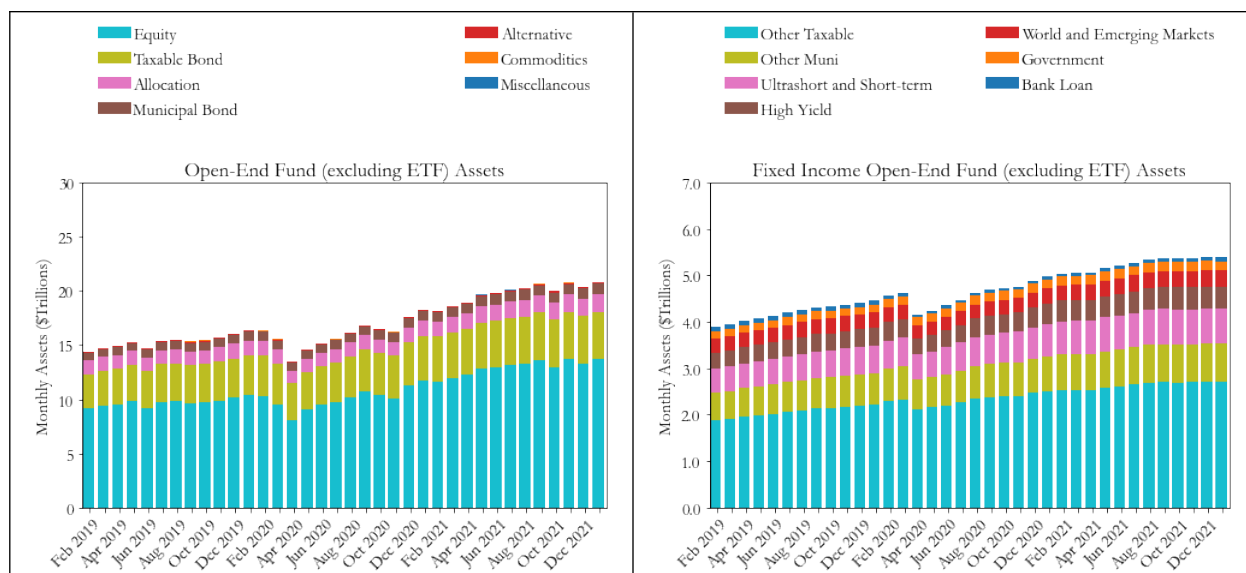
⁴² Fixed-income funds, excluding ETFs, had assets of \$4.5 trillion, and fixed-income ETFs had assets of \$800 billion.

trillion) from \$20.8 trillion in December 2019 to a total of \$17.2 trillion. Assets of open-end funds excluding ETFs fell 18% (\$2.9 trillion) from \$16.4 trillion to \$13.5 trillion, and ETF assets fell 17% (approximately \$760 billion) from \$4.4 trillion to \$3.7 trillion. Of this amount, fixed-income mutual fund assets fell 5.5%, although fixed-income ETFs' assets increased slightly.⁴³ In addition, bank loan fund assets fell by 30% in March 2020, or from \$100 billion to \$70 billion, compared to the level of assets reported in December 2019.

Figure 2: Trends in Open-End Fund Assets

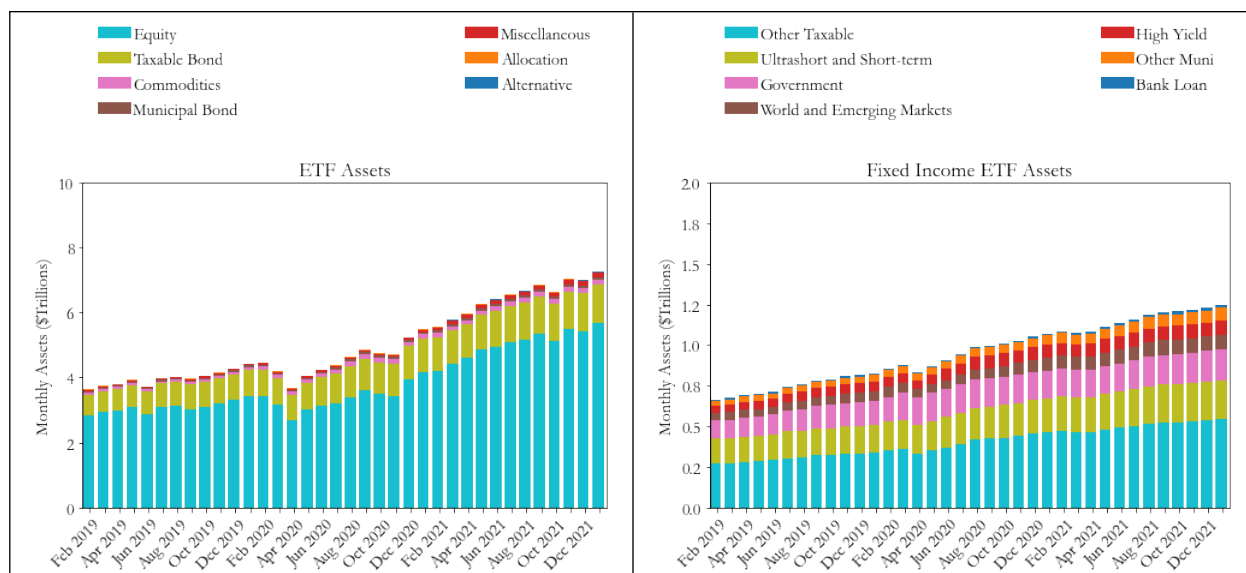
Open-End Fund (Excluding ETF) Assets	Open-End Fixed-Income Fund (Excluding ETF) Assets

⁴³ Fixed-income funds, excluding ETFs, had assets of approximately \$4.1 trillion, while fixed-income ETFs' assets increased slightly from Dec. 2019 levels to \$830 billion.



Source: Morningstar

ETF Assets	Fixed-Income ETF Assets



Source: Morningstar

The market disruptions of the March 2020 period included significant redemption activity in open-end funds.⁴⁴ Throughout 2019, net flows into open-end funds averaged approximately \$32.4 billion, or 0.2% per month.⁴⁵ During this same period, fixed-income funds experienced a steady inflow of approximately \$41.7 billion, or 0.9% per month on average.⁴⁶ In March 2020, however, open-end funds had outflows totaling \$329.4 billion, or 1.7% of prior period assets.⁴⁷

⁴⁴ Open-end funds also experienced heightened outflows in other stressed periods, such as the last quarter of 2008, but outflows in March 2020 surpassed those witnessed in these other periods. For example, during the last quarter of 2008, investors withdrew \$65 billion from bond funds. Total outflows for bond funds during this period never exceeded 1.5% of total net assets. *See* ICI, 2009 Investment Company Fact Book, Figure 2.10 and accompanying text, *available at* https://www.ici.org/system/files/attachments/2009_factbook.pdf (calculating net flows as a three-month moving average of net flows as a percentage of previous month-end assets, and excluding high yield bond funds).

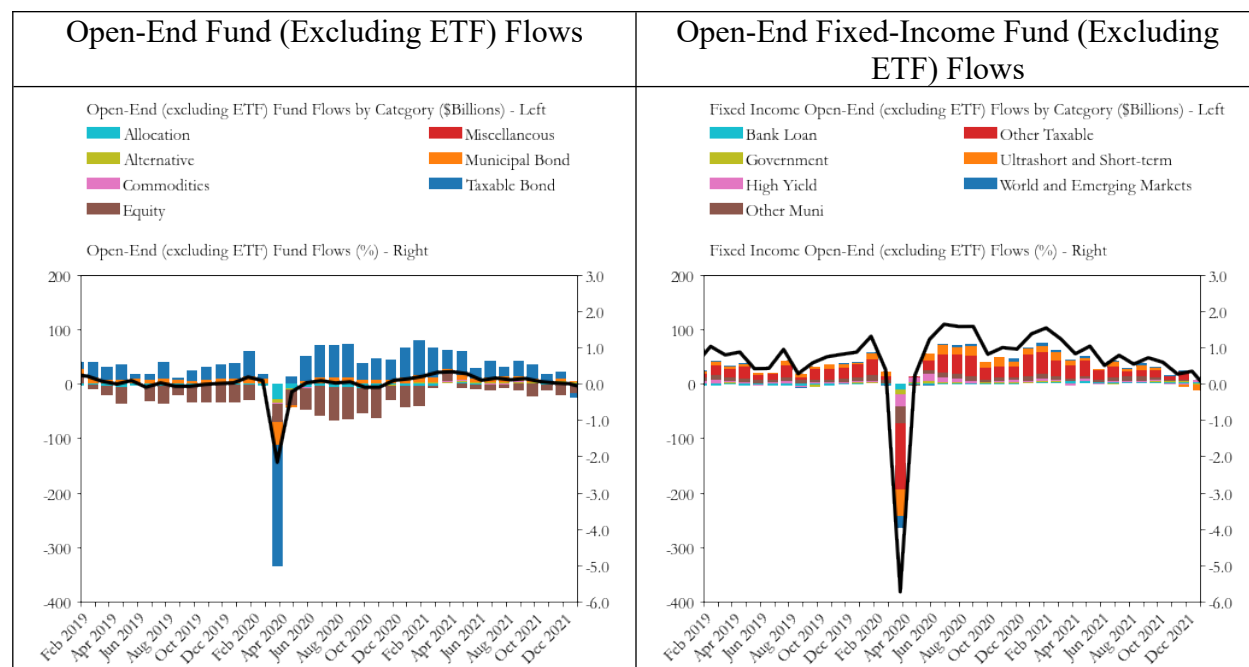
⁴⁵ Open-end funds (excluding ETFs) had average net flows of approximately \$4.8 billion (or 0.04% per month). ETFs had average net flows of approximately \$27.7 billion (or 0.7% per month).

⁴⁶ Fixed-income funds (excluding ETFs) had inflows of \$28.8 billion (or 0.7% per month on average). Fixed-income ETFs had inflows of \$12.5 billion (or 1.7% per month on average).

⁴⁷ Open-end funds (excluding ETFs) had outflows totaling \$336.8 billion, or 1.7% of prior period assets. ETFs had inflows totaling \$7.3 billion, or 2% of prior period assets. The majority of ETF inflows were for equity ETFs, which had \$14.7 billion in inflows. Allocation, alternative, commodity, and miscellaneous/other ETFs had inflows of \$13.2 billion. The inflows into some types of ETFs were partially offset by outflows of \$20.6 billion from fixed-income ETFs.

The majority of these outflows were from fixed-income funds, which had \$286.6 billion in outflows.⁴⁸ Taxable bond funds had outflows of \$241.7 billion (or 5.2% of prior period assets), of which, bank loan funds had outflows of \$12.4 billion (or 13.4% of prior period assets in these funds).⁴⁹ Municipal bond funds had \$44.9 billion in outflows (or 4.9% of prior period assets).⁵⁰

Figure 3: Open-End Fund and Fixed Income Fund Flows

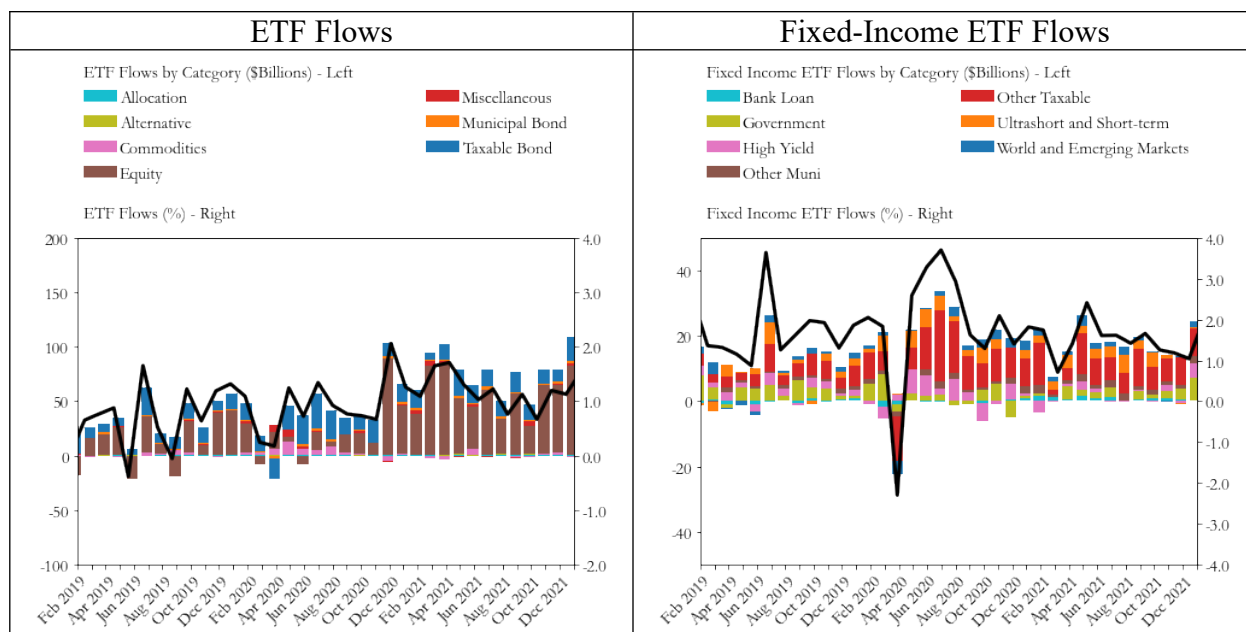


Source: Morningstar

⁴⁸ Open-end funds (excluding ETFs) had outflows of approximately \$266 billion, and ETFs had outflows of approximately \$20.6 billion.

⁴⁹ For open-end funds (excluding ETFs) this included outflows of \$223.3 billion (5.9%) for taxable bond funds (of which, bank loan funds had outflows of \$11.4 billion (13.6%)). For ETFs this included outflows of \$18.4 billion (2.2%) for taxable bond ETFs (of which, bank loan ETFs had outflows of approximately \$1 billion (11.2%))

⁵⁰ For open-end funds (excluding ETFs) this included outflows of \$42.6 billion (5%) for municipal bond funds. For ETFs this included outflows of \$2.2 billion (4.3%) for municipal bond ETFs.



Source: Morningstar

During the period of market turmoil, bid-ask spreads spiked by as much as 100 basis points for high-yield bonds and 150-200 basis points for investment-grade bonds.⁵¹ In general, the bond market and bank loan market experienced significant price declines in March 2020. The price for 10 year U.S. Treasuries increased by roughly 4.6%. The price of corporate bonds declined by 7%.⁵² The price of leveraged loans decreased by roughly 13%.⁵³ The heightened volatility and demand for liquidity drove stress throughout the market, particularly in the bond fund and bank loan fund markets. Price declines were not limited to these markets, however. For example, the price for U.S. small cap equities decreased by roughly 24%.⁵⁴

Beginning in mid-March 2020, the Federal Reserve, with the approval of the Department of the Treasury, used its emergency powers to intervene by providing timely and sizable

⁵¹ See SEC Staff Interconnectedness Report, *supra* note 38, at 37.

⁵² The decline in the price of corporate bonds is measured by the BBG U.S. Corporate Bond Index.

⁵³ The decline in the price of leveraged loans was measured by the S&P Leveraged Loan Price Index.

⁵⁴ The decline in the price of U.S. small cap equities was measured by the Russell 2000 Total Return Index.

interventions in an effort to stabilize the markets. The official sector interventions included, among others, the Secondary Market Corporate Credit Facility, introduced on March 23, 2020. This facility supported market liquidity by purchasing in the secondary market corporate bonds issued by investment grade U.S. companies, as well as U.S.-listed ETFs whose investment objective is to provide broad exposure to the market for U.S. corporate bonds.⁵⁵

After the Federal Reserve announced that it would be using its emergency powers for official sector interventions, market stress relating to the COVID-19 pandemic began to subside. Assets in open-end funds, including fixed income funds, began to increase. By December 2020, open-end fund assets had increased to \$24 trillion, with fixed-income funds (excluding ETFs) reaching \$6 trillion in assets, and fixed-income ETFs surpassing \$1 trillion in assets.⁵⁶ Bank loan fund assets remained essentially unchanged, however, from March 2020 levels and remained at \$68 billion.

Other Observations from March 2020

Beyond data evidencing the liquidity stress funds faced in March 2020, we also observed the stress through staff outreach to the industry. During this period, fund managers discussed their liquidity concerns with Commission staff and the potential need for emergency relief. Fund managers explored various emergency relief actions. For example, some fund managers requested emergency relief that would provide additional flexibility for interfund lending and

⁵⁵ See, e.g., Press Release, Federal Reserve Announces Extensive New Measures to Support the Economy (Mar. 23, 2020), *available at* <https://www.federalreserve.gov/newsevents/pressreleases/monetary20200323b.htm>; <https://www.federalreserve.gov/monetarypolicy/smccf.htm> (describing the Secondary Market Corporate Credit Facility in particular).

⁵⁶ From Apr. to Dec. 2020, fixed-income funds averaged \$75 billion in inflows, or 1.4% per month. Ultrashort and short-term bond funds experienced average monthly inflows of \$16 billion and 2% of assets over this period.

other short-term funding to help meet redemptions, which the Commission provided.⁵⁷ Some managers suggested emergency relief to permit funds to impose redemption fees that exceed 2% to mitigate dilution, including fees that ETFs can charge authorized participants to cover liquidity and transaction costs.⁵⁸ Some fund managers that have successfully used swing pricing in Europe urged the Commission to explore emergency actions to facilitate funds' ability to operationalize the Commission's current swing pricing rule. Some fund managers also suggested there was a need for Federal Reserve interventions. These discussions indicated that fund managers sought additional means to quickly address liquidity and dilution concerns during this period of financial stress.

During these conversations, several fund managers with operations in both the U.S. and Europe discussed their experience with swing pricing in Europe and indicated that swing pricing would have been a useful tool for U.S. funds to have had in March 2020. Swing pricing was widely used in several European jurisdictions during the March 2020 stressed period to reduce dilution from rising transaction costs.⁵⁹ In these jurisdictions, some funds used partial swing

⁵⁷ See Order Under Sections 6(c), 12(d)(1)(J), 17(b), 17(d) and 38(b) of the Investment Company Act of 1940 and Rule 17d-1 Thereunder Granting Exemptions from Specified Provisions of the Investment Company Act and Certain Rules Thereunder, Investment Company Act Release No. 33821 (Mar. 23, 2020), *available at* <https://www.sec.gov/rules/other/2020/ic-33821.pdf>. Although the Commission provided this relief for a period of time, we understand funds generally did not use it.

⁵⁸ ETFs typically externalize the costs associated with purchases and redemptions of shares by redeeming in kind and by charging a fixed and/or variable fee to authorized participants to offset both transfer and other transaction costs that an ETF (or its service provider) may incur, as well as brokerage, tax-related, foreign exchange, execution, market impact, and other costs and expenses related to the execution of trades resulting from such transaction. The amount of these fixed and variable fees typically depends on whether the authorized participant effects transactions in kind or with cash and is related to the costs and expenses associated with transactions effected in kind versus in cash. For example, when an authorized participants redeems ETF shares by selling a creation unit to the ETF, the fees that the ETF imposes defray the costs of liquidity the redeeming authorized participant receives. This, in turn, mitigates the risk of diluting non-redeeming authorized participants when an ETF redeems its shares.

⁵⁹ Funds in countries such as Luxembourg, Ireland, the United Kingdom, and the Netherlands had implemented swing pricing and it was well-established market practice. In Mar. 2020, funds in

pricing (where a NAV adjustment occurs only if net flows exceed a swing threshold), some funds used full swing pricing (where a NAV adjustment occurs any time a fund has net inflows or net outflows), and some funds did not use swing pricing. Many European funds increased their use of swing pricing and increased the size of their swing factors during the stressed period. For example, a voluntary survey conducted by the Bank of England and Financial Conduct Authority of a subset of fund managers in the United Kingdom (“UK”) indicated that the use of swing pricing more than doubled from the last quarter of 2019 to the first quarter of 2020.⁶⁰ Due to increasing transaction costs, several European funds lowered their swing thresholds in March 2020, with some moving to full swing pricing for net redemptions.⁶¹ Funds also increased the

some countries, such as France, Spain, and Germany, had more recently begun to employ swing pricing as an anti-dilution method. *See* Lessons from COVID-19: Liquidity Risk Management and Open-Ended Funds, BlackRock ViewPoint (Jan. 2021), *available at* <https://www.blackrock.com/corporate/literature/whitepaper/viewpoint-addendum-lessons-from-covid-liquidity-risk-management-is-central-to-open-ended-funds-january-2021.pdf>.

⁶⁰ *See* Liquidity management in UK open-ended funds: Report based on a joint Bank of England and Financial Conduct Authority survey (Mar. 2021), *available at* <https://www.bankofengland.co.uk/report/2021/liquidity-management-in-uk-open-ended-funds> (“Bank of England Survey”). The increase in the use of partial and full swing pricing included the increase in the number of funds using swing pricing as well as the increase in the frequency of its use for funds that already used swing pricing. The survey also found that some funds did not use swing pricing or other tools during the period because, for example, net outflows of certain funds were below levels at which they would consider applying swing pricing or other tools.

⁶¹ *See id.* (stating that, out of a total of 202 surveyed funds that were authorized to use swing pricing, 45 funds decided to reduce their swing threshold during this period, including 18 funds that switched temporarily to full swing pricing during the market stress); ICI, Experiences of European Markets, UCITS, and European ETFs During the COVID-19 Crisis (Dec. 2020), *available at* https://www.ici.org/doc-server/pdf/%3A20_rpt_covid4.pdf (“Respondents reported that some UCITS lowered their partial swing thresholds during March to take into consideration the impact flows could have on investors from increased transaction costs in underlying markets... Some UCITS using partial swing pricing lowered their threshold for redemptions to zero in March (which is equivalent to full swing pricing) in response to market volatility that had caused bid-ask spreads to widen on underlying securities.”); Claessens, Stijn, and Lewrick, Ulf, “Open-ended bond funds: systemic risks and policy implications” (Dec. 2021) *available at* https://www.bis.org/publ/qtrpdf/r_qt2112c.pdf (stating that, in a survey of 57 Luxembourg actively managed bond UCITS based on a supervisory data collection, these funds lowered swing thresholds on average from net outflows of 1% of total net assets before Mar. 2020 to less than 0.5% of total net assets) (“Claessens and Lewrick”). *See also* CSSF Working Paper: An Assessment of Investment Funds’ Liquidity Management Tools (June 2022), *available at* <https://www.cssf.lu/en/2022/06/publication-of-cssf-working-paper-an-assessment-of-investment->

size of their swing factors to account for the increase in liquidity and transaction costs. For example, a survey of Luxembourg UCITS found that while the average swing factor for the survey sample hovered around zero before the turmoil, it increased by more than 100 basis points on average during the market stress.⁶² The survey of UK-authorized funds similarly found that the size of swing factors increased during this period and that some funds that had capped the size of their swing factors needed to temporarily remove these caps.⁶³ In terms of the effects of using swing pricing during March 2020, one study found that swing pricing allowed surveyed funds to recoup roughly 0.06% of total net assets on average from redeeming investors during three weeks of elevated redemptions in March 2020.⁶⁴

We also observed funds' liquidity risk management in March 2020 through funds' filings with the Commission and other staff outreach. Specifically, during and following the market events of March 2020, Commission staff assessed liquidity-related data reported on Forms N-PORT and N-RN, as well as the development of liquidity risk management programs through staff outreach to funds, advisers, and liquidity classification vendors.⁶⁵ Based on review of Form funds-liquidity-management-tools/ ("CSSF Paper").

⁶² See Claessens and Lewrick, *supra* note 61; CSSF Paper, *supra* note 61 (stating that "[t]he average swing factor of the 42 bond funds participating in the CSSF survey increased by more than 100 basis points on average during Mar. 2020 (the median and maximum swing factor were 60 and 350 basis points, respectively)").

⁶³ See Bank of England Survey, *supra* note 60 (stating that of the 17 surveyed funds that had a cap on their swing factors, which ranged from 0.25% to 3%, 13 funds temporarily removed the caps in response to heightened outflows and a few managers overrode the caps). We also understand that in response to funds' requests to use swing factors above their disclosed caps, some jurisdictions provided guidance on when this is permitted. See Commission de Surveillance du Secteur Financier, Swing Pricing Mechanism – FAQ, *available at* <https://www.cssf.lu/en/Document/cssf-faq-swing-pricing-mechanism/> (providing guidance for increasing the swing factor above the maximum level identified in a fund's prospectus under certain circumstances, and noting that typical maximum swing factors observed in fund prospectuses are between 1% and 3%).

⁶⁴ See Claessens and Lewrick, *supra* note 61.

⁶⁵ The Mar. 2020 data collected on Form N-PORT often was not available to the Commission until June or July 2020 because a fund files data covering each month of its fiscal quarter on Form N-

N-PORT filings for February and March 2020, approximately two-thirds of funds did not appear to reclassify any investment held in both months despite the market events described above.⁶⁶ We saw that reclassifications increased from 25% of funds that held the same investment in both January and February 2020 to 33% of funds in March 2020, and stayed elevated for April 2020. We understand that many fund and liquidity vendor classification models use data lookback periods of 30 days or more that made them slowly adjust to changing market conditions, leaving these firms unable to consider their classifications and reclassify when market conditions changed quickly. In addition, we understand that classification models generally tend to assess liquidity based on relatively small sale sizes that do not necessarily reflect the amount a fund may need to sell to meet heightened levels of redemptions in stress periods, and most models do not automatically adjust to a higher trade size when market conditions change. Moreover, our data indicate that in March 2020 cash levels in the aggregate increased and relatively few funds made use of borrowing to meet redemptions, suggesting that funds generally were selling portfolio assets to meet redemptions and potentially for other purposes, such as to raise cash in anticipation of future redemptions. During March 2020, more than a dozen funds (primarily fixed-income funds) filed reports on Form N-RN. Most of these Form N-RN filings related to breaches of the 15% limit on illiquid investments.

Overall, the market events in March 2020 show how liquidity can deteriorate rapidly and significantly. In the face of such rapid market changes, liquidity risk management program features of some funds adjusted slowly, making them less effective during the stress period for managing liquidity risk. Additionally, tools, such as swing pricing, that may have helped open-

PORT no later than 60 days after the end of each fiscal quarter.

⁶⁶ See *infra* note 128 (discussing that fewer equity funds reported reclassifications of investments held in both Feb. and Mar. 2020 than fixed-income funds).

end funds limit dilution as both transaction costs and redemptions rose were unavailable because of operational challenges, although these tools were used in other jurisdictions during this period.

C. Rulemaking Overview

In March 2020, some open-end funds were not prepared for the sudden market stress that arose after many years of relative calm and, as the market stress and outflows grew, several funds began to explore emergency relief requests or suggest a need for government intervention in an effort to withstand or alleviate liquidity stress, address dilution, and improve overall market conditions. The period of market stress in March 2020 was relatively brief ending upon Federal Reserve interventions, and no funds sought to suspend redemptions during this period. We believe there are meaningful lessons from this period that our rules should reflect, while also recognizing the possibility that future stressed periods—whether specific to certain funds or the markets as a whole—may be more protracted or more severe than March 2020, particularly absent Federal Reserve action. Fundamentally, we believe funds should be better prepared for future stressed conditions, which can occur suddenly and unexpectedly, and should have well-functioning tools for managing through stress without significantly diluting the interests of their shareholders. We are proposing amendments to rules 22e-4 and 22c-1 that are designed to achieve these key objectives and to reflect our experience with the rules since they were adopted, as well as supporting amendments to Form N-PORT and other reporting and disclosure forms.

Specifically, recognizing that it can be difficult to predict when market stress will occur, the proposed amendments to rule 22e-4 would require funds to incorporate stress into their liquidity classifications by assuming the sale of a stressed trade size, which would be 10% of each portfolio investment, rather than the rule’s current approach of assuming the sale of a “reasonably anticipated trade size” in current market conditions. Requiring a fund’s classification

model to assume the sale of larger-than-typical position sizes may better emulate the potential effects of stress on the fund's portfolio, similar to an ongoing stress test, and help better prepare a fund for future stress or other periods where the fund faces higher than typical redemptions. The proposal also would establish other minimum standards for classifying the liquidity of an investment, which are designed to improve the quality of classifications by preventing funds from over-estimating the liquidity of their investments and to provide clearer guideposts for liquidity classifications, reflecting the more effective practices we have observed.

In addition, we propose to remove the less liquid investment category and to treat these investments as illiquid. The less liquid category consists of investments that can be sold in seven calendar days but that take longer to settle. For example, many bank loans take longer than seven days to settle. The proposed amendment is designed to reduce the mismatch between the receipt of cash upon the sale of assets with longer settlement periods and the payment of shareholder redemptions. This would better position funds to meet redemptions, including in times of stress. Currently, treating these investments as "less liquid"—as opposed to "illiquid"—allows funds to invest in these assets beyond the 15% limit on illiquid investments, notwithstanding that "less liquid" investments settle beyond the statutory seven-day period to pay redemptions. We are also proposing to amend the definition of illiquid investment to include investments whose fair value is measured using an unobservable input that is significant to the overall measurement. We understand many funds classify these investments as illiquid today.

We also propose to require daily liquidity classifications. We believe this change would promote better monitoring of a fund's liquidity and an ability to more rapidly understand and respond to changes that affect the liquidity of the fund's portfolio, including the fund's

compliance with its highly liquid investment minimum and the rule's limit on illiquid investments.

As another means to prepare funds for stressed conditions, we are proposing to amend the highly liquid investment minimum provisions in the rule to require all funds to determine and maintain a minimum amount of highly liquid assets of at least 10% of net assets. This aspect of the proposal is designed to ensure that funds have sufficient liquid investments for managing heightened levels of redemptions. Finally, we are proposing amendments to how the highly liquid investment minimum calculation and the calculation of the 15% limit on illiquid investments take into account the value of assets that are posted as margin or collateral for certain derivatives transactions to reflect that the fund cannot access the value of posted assets to meet redemptions until the fund is able to exit the derivatives transactions.

In addition, to reduce shareholder dilution during stress and other periods, we are proposing to amend rule 22c-1 to require all open-end funds, other than ETFs and money market funds, to implement swing pricing. Today, no fund has implemented swing pricing, and funds rarely use redemption fees to address dilution other than in the case of short-term trading of fund shares, meaning shareholders may experience dilution both in normal and stressed conditions, particularly when purchases or redemptions are large or when funds invest in markets with high transaction costs relative to other markets.⁶⁷ We believe swing pricing is an important and effective tool for dynamically addressing such dilution by recognizing that costs associated with shareholder purchases and redemptions rise as net flows increase and liquidity and transaction costs grow.

⁶⁷ Based on an analysis of fund prospectuses, approximately 551 open-end funds (or around 4.6% of funds) state that they apply redemption fees under certain circumstances for at least one share class of the fund. Approximately 3.3% of fund classes have a redemption fee, or 0.6% of net fund assets.

In addition to proposing mandatory swing pricing, we are proposing to amend the swing pricing framework in rule 22c-1 to apply lessons learned from March 2020, including information about the European experience with swing pricing during that period. Specifically, we propose to amend both when and how a fund would adjust its NAV, which would vary depending on whether a fund has net purchases or net redemptions. Rather than require funds to determine their own swing thresholds, we propose to specify the amount of net inflows or net outflows that would trigger a pricing adjustment in the rule, informed by an analysis of historical flow amounts.

In addition, we propose a specific method of calculating the swing factor price adjustment, which would require a fund to make good faith estimates of the transaction costs of selling or purchasing a pro rata amount of its portfolio investments (or a “vertical slice”) to satisfy that day’s redemptions or to invest the proceeds from that day’s purchases. Under the proposal, a fund would be required to apply a swing factor on any day it has net redemptions. When net redemptions exceed 1% of net assets, the swing factor would also account for market impacts of selling a vertical slice of the portfolio to capture the dilutive effect of trading in response to large outflows better. We believe trading in response to small levels of net inflows is less likely to have a dilutive effect than trading in response to net outflows and, as a result, we propose to require a fund to apply a swing factor for net purchases only if net purchases exceed 2% of net assets. In addition, we propose to remove the 2% swing factor upper limit from the current rule because we are proposing a more specific framework for determining swing factors, some European funds used swing factors above 2% in order to mitigate dilution in March 2020, and we received requests for emergency relief in the United States during this period to allow funds to charge redemptions fees exceeding 2% to mitigate dilution. The proposed swing pricing

amendments are designed to reduce the dilution of an investor's interest in a fund that is caused by the redemption or purchase activity of other investors in the fund and to fairly allocate the costs associated with redemption and purchase activity. These amendments also may reduce potential first-mover advantages that might incentivize early redemptions to avoid anticipated trading costs and dilution associated with other investors' redemptions.

To operationalize the proposed swing pricing requirement and provide other benefits, we are also proposing to amend rule 22c-1 to require that the fund, its transfer agent, or a registered clearing agency receive purchase and redemption orders by an established cut-off time to receive a given day's price (a "hard close"). Specifically, for an order to be eligible to receive a day's price, these designated parties would have to receive the order before the pricing time, which is typically 4 p.m. ET. The proposed hard close would facilitate the receipt of timely flow information to inform swing pricing decisions. In addition, we believe it would help prevent late trading and reduce operational risk.

To promote transparency related to fund liquidity and use of swing pricing, we are proposing amendments to Form N-PORT to require funds to report their aggregate liquidity classifications publicly, as well as the frequency and amount of swing pricing adjustments. With respect to liquidity disclosure, this amendment is designed to provide investors with meaningful information about fund liquidity, taking into account that our proposed amendments to the liquidity classification framework should result in more objective and comparable liquidity classifications across funds.⁶⁸ As for the proposed swing pricing reporting requirements, we

⁶⁸ In certain cases, investors consume reported information indirectly through other data users. These other data users can include, for example, regulators such as the Commission, fund analysts, and third-party data providers. Throughout this release, references to consumption of information by investors include indirect consumption by investors enabled by other data users.

believe the proposed frequency and size information would allow investors to better understand the operation and effects of swing pricing.

We also propose broader changes to Form N-PORT to require all registered investment companies that report on the form, which include open-end funds (other than money-market funds), registered closed-end funds, and ETFs registered as unit investment trusts, to file monthly reports with the Commission within 30 days of month-end. These monthly reports would subsequently be publicly available 60 days after month-end. These proposed amendments would require filers to provide the Commission with more timely information and would provide investors with access to monthly rather than quarterly information. We observed in March 2020 that timely and full disclosure can be particularly important during and immediately after stress events. Finally, we propose amendments to Forms N-PORT, N-CEN, and N-1A to, among other things, conform to our other proposed amendments and to improve entity identifiers.

Taken together, these proposed amendments are designed to provide investors with increased protection regarding how liquidity in their funds is managed, thereby reducing the risk that funds will be unable to meet redemptions and mitigating dilution of the interests of fund shareholders. These reforms also are intended to give investors information to make more informed investment decisions, and to give the Commission more timely information to conduct comprehensive oversight of an ever-evolving fund industry.

II. DISCUSSION

A. Amendments Concerning Funds' Liquidity Risk Management Programs

1. Amendments to the Classification Framework

Rule 22e-4 currently requires a fund to classify each portfolio investment based on the number of days within which it reasonably expects the investment would be convertible to cash,

sold or disposed of, without significantly changing its market value.⁶⁹ Under this framework, funds must, using information obtained after reasonable inquiry and taking into account relevant market, trading, and investment-specific considerations, classify each portfolio investment into one of four liquidity classifications: highly liquid, moderately liquid, less liquid, and illiquid.⁷⁰ A fund may generally classify and review its investments by asset class unless the fund or adviser has information about any market, trading, and investment-specific considerations that it reasonably expects to significantly affect the liquidity characteristics of an investment compared to the fund's other portfolio holdings within that asset class.⁷¹ In classifying its investments, a fund must analyze the number of days that it reasonably expects it would take to sell, or convert to cash, portions of a position in a particular investment or asset class that the fund would reasonably anticipate trading (the "reasonably anticipated trade size") without significantly changing its market value ("value impact").⁷² A fund must review its liquidity classifications at least monthly in connection with reporting the liquidity classification for each investment on Form N-PORT, and more frequently if changes in relevant market, trading, and investment-

⁶⁹ In-kind ETFs are included when we refer to "funds" or "open-end funds" throughout this release when discussing rule 22e-4, except in the sections discussing classifying the liquidity of a fund's investments and the highly liquid investment minimum requirement, from which in-kind ETFs are excepted. *See* proposed rule 22e-4(a) (defining "in-kind ETF" as an ETF that meets redemptions through in-kind transfers of securities, positions, and assets other than a *de minimis* amount of U.S. dollars and that publishes its portfolio holdings daily); *see also* rule 22e-4(b)(1)(ii) and 22e-4(b)(1)(iii). In-kind ETFs do not present the same kind of liquidity risks as other funds because the redeeming shareholder typically bears the direct costs associated with its liquidity needs. *See* Liquidity Rule Adopting Release, *supra* note 8, at paragraphs accompanying n.842.

⁷⁰ *See* rule 22e-4(b)(1)(ii).

⁷¹ *See* rule 22e-4(b)(1)(ii)(A).

⁷² *See* rule 22e-4(b)(1)(ii)(B) (requiring a fund to determine whether trading varying portions of a position in sizes that the fund would reasonably anticipate trading is reasonably expected to significantly affect its liquidity). The definition of each liquidity category sets out the number of days in which a fund reasonably expects to sell, or convert to cash, an investment without significantly changing its market value. *See* rule 22e-4(a)(6), rule 22e-4(a)(8), rule 22e-4(a)(10), and rule 22e-4(a)(12).

specific considerations are reasonably expected to materially affect one or more of its investments' classifications.⁷³

The liquidity classifications are integral to rule 22e-4. Among other things, these classifications help a fund monitor its liquidity, including compliance with the fund's highly liquid investment minimum and the 15% limit on illiquid investments.⁷⁴ The fund's classifications also provide liquidity information to the Commission and, under our proposal, to the public.

The current rule allows funds considerable discretion in how funds determine the classification of investments.⁷⁵ Funds may choose which investments to classify individually or by asset class, with the composition of asset classes determined by the fund. Funds also may use different reasonably anticipated trade sizes and have different standards for evaluating value impact. Through staff outreach, we observed that funds had varied approaches in their classifications processes. The proposed amendments to the liquidity classifications are intended to better prepare funds for future stressed conditions. For example, the reasonably expected trade sizes and value impact standards some funds and liquidity classification vendors used tended to over-estimate a fund's liquidity in March 2020 because they considered relatively smaller trade sizes or used value impact methodologies with longer lookback periods.

Based on our observations from March 2020 and our review of funds' liquidity risk management practices and classifications, we are proposing amendments to the classification

⁷³ See rule 22e-4(b)(1)(ii).

⁷⁴ See rule 22e-4(b)(1)(iii) and rule 22e-4(b)(1)(iv).

⁷⁵ See Liquidity Rule Adopting Release, *supra* note 810, at n.163 and accompanying text (stating that the primary goals of the liquidity rule program requirements were to reduce the risk that funds would be unable to meet redemption and other legal obligations, minimize dilution, and elevate the overall quality of liquidity risk management across the fund industry while at the same time providing funds with reasonable flexibility to adopt policies and procedures that would be most appropriate to assess and manage their liquidity risk).

framework. The proposed amendments would provide additional standards for making liquidity determinations, amend certain aspects of the liquidity categories, and require more frequent liquidity classifications. Specifically, we propose to provide objective minimum standards that funds would use to classify investments, including by: (1) requiring funds to assume the sale of a set stressed trade size, rather than the rule's current approach of assuming the sale of a reasonably anticipated trade size in current market conditions; and (2) defining the value impact standard with more specificity on when a sale or disposition would significantly change the market value of an investment. We also propose to remove classification by asset class. These proposed amendments are designed to improve the quality of classifications by preventing funds from over-estimating the liquidity of their investments, including in times of stress, and to provide classification standards that are consistent with more effective practices the staff has observed. In addition, a more objective and comparable framework for how funds classify the liquidity of their investments would enhance the Commission's ability to analyze trends across funds' classifications and establish the groundwork for classification information that investors could use to analyze and compare funds.

We also propose to remove the less liquid investment category, which would reduce the number of liquidity categories from four to three, and expand the scope of the illiquid investment category. We believe these changes would reduce the risk of a fund not being able to meet shareholder redemptions. Finally, we propose to require daily classifications, which we believe would promote better monitoring by liquidity risk program administrators of a fund's liquidity and an ability to more rapidly understand and respond to changes that affect the liquidity of the fund's portfolio.⁷⁶

⁷⁶ See rule 22e-4(a)(13) (defining "person(s) designated to administer the program", in part, as the investment adviser, officer, or officers responsible for administering the program).

Table 1 sets forth the primary proposed changes to the rule's liquidity classification framework, which are described in more detail below.

Table 1: Proposed Changes to the Liquidity Classifications

Liquidity Classifications and Related Terms	Current Rule 22e-4	Proposed Rule 22e-4
Definitions		
Highly Liquid Investment	Any cash held by a fund and any investment that the fund reasonably expects to be convertible into cash in current market conditions in three business days or less without the conversion to cash significantly changing the market value of the investment.	Any U.S. dollars held by a fund and any investment that the fund reasonably expects to be convertible to U.S. dollars in current market conditions in three business days or less without significantly changing the market value of the investment.
Moderately Liquid Investment	Any investment that the fund reasonably expects to be convertible into cash in current market conditions in more than three calendar days but in seven calendar days or less, without the conversion to cash significantly changing the market value of the investment.	Any investment that is neither a highly liquid investment nor an illiquid investment.
Less Liquid Investment	Any investment that the fund reasonably expects to be able to sell or dispose of in current market conditions in seven calendar days or less without the sale or disposition significantly changing the market value of the investment, but where the sale or disposition is reasonably	Removed.

Liquidity Classifications and Related Terms	Current Rule 22e-4	Proposed Rule 22e-4
	expected to settle in more than seven calendar days.	
Illiquid Investment	Any investment that the fund reasonably expects cannot be sold or disposed of in current market conditions in seven calendar days or less without the sale or disposition significantly changing the market value of the investment.	Any investment that the fund reasonably expects not to be convertible to U.S. dollars in current market conditions in seven calendar days or less without significantly changing the market value of the investment and any investment whose fair value is measured using an unobservable input that is significant to the overall measurement.
Convertible to Cash / U.S Dollars	The ability to be sold, with the sale settled.	The ability to be sold or disposed of, with the sale or disposition settled in U.S. dollars.
Related Concepts		
Assumed Trade Size	Sizes that the fund would reasonably anticipate trading	10% of the fund's net assets by reducing each investment by 10%
Value Impact Standard	Significantly changing the market value of the investment	Significantly changing the market value of an investment means: (1) For shares listed on a national securities exchange or a foreign exchange, any sale or disposition of more than 20% of average daily trading volume of those shares, as measured over the preceding 20 business days. (2) For any other investment, any sale or disposition that the fund reasonably expects would result in a decrease in sale price of more than 1%.

a. Stressed Trade Size and Significant Changes in Market Value

i. Replacing Reasonably Anticipated Trade Size with Stressed Trade Size

Currently, when a fund makes liquidity classifications under rule 22e-4, it must determine whether trading varying portions of a position in a particular portfolio investment or asset class, in sizes that the fund would *reasonably anticipate trading*, is reasonably expected to significantly affect its liquidity.⁷⁷ This determination of a reasonably anticipated trade size helps a fund analyze market depth. For example, if a fund anticipates trading a large investment position relative to the market's total trading volume, the size of the trade might affect liquidity and price.⁷⁸

Using a small reasonably anticipated trade size to analyze market depth leads to a more liquid classification, as a smaller position can be sold more quickly without significantly affecting the investment's liquidity than a larger position. In contrast, using a larger reasonably anticipated trade size would often lead to less liquid classifications. Under the current rule, a fund may determine its own reasonably anticipated trade size, and we have observed wide variation in practice.⁷⁹ From staff outreach, we observed that funds may consider a variety of different factors, such as their flow history, flow trends of other similar funds, and shareholder makeup and concentration, and a fund may weigh the importance of those factors differently to determine what it would reasonably anticipate trading. We believe that using a reasonably

⁷⁷ See rule 22e-4(b)(1)(ii)(B).

⁷⁸ See Liquidity Rule Adopting Release, *supra* note 8, at paragraphs accompanying n.440 and n.450.

⁷⁹ See SEC staff Investment Company Liquidity Risk Management Programs Frequently Asked Questions (Apr. 10, 2019) ("Liquidity FAQs"), *available at* <https://www.sec.gov/investment/investment-company-liquidity-risk-management-programs-faq> for discussion of factors funds may consider in determining reasonably anticipated trading size. The Commission has observed that many funds have set reasonably anticipated trade size values at 3%. Others have set values of below 3% and up to 100%, signifying wide variation.

anticipated trade size based on these, or a subset of these factors, may not help funds prepare for future stressed conditions. Even if a fund increased its reasonably anticipated trade size during periods of stress, the resulting adjustments in the fund's liquidity risk management may be too late to help the fund prepare for the stressed environment and, thus, may have limited utility.

In response to the variability in funds' reasonably anticipated trade sizes and the potential ineffectiveness of small trade sizes in helping a fund prepare for stress, we propose to require funds to assume the sale of a set stressed trade size. Specifically, for a fund to determine the liquidity classification of each investment, we propose that it must measure the number of days in which the investment is reasonably expected to be convertible to U.S. dollars without significantly changing the market value of the investment, while assuming the sale of 10% of the fund's net assets by reducing each investment by 10%.⁸⁰ The proposed stressed trade size may result in funds classifying fewer investments as highly liquid, and may increase the number of investments that are subject to the 15% limit on illiquid investments. These changes, in turn, may lead some funds to rebalance their portfolio holdings to comply with the proposed changes, which could negatively affect the performance of these funds. However, a lack of preparation for higher than normal redemptions also can negatively affect fund performance when such redemptions occur.⁸¹ We believe that requiring a fund's classification model to assume the sale of larger-than-typical position sizes would better emulate the potential effects of stress on the

⁸⁰ The liquidity classifications define the number of days as business days for highly liquid investments or calendar days for illiquid investments. *See* Table 1. *See also* rule 22e-4(a)(2) (defining "business day" to exclude customary business holidays).

⁸¹ *See* Liquidity Rule Adopting Release, *supra* note 8, at paragraphs accompanying nn.109 and 110 (stating that staff had observed that some funds with more thorough liquidity risk management practices appeared to be able to better meet periods of higher than typical redemptions without significantly altering their risk profile or materially affecting their performance, while some funds with substantially less rigorous liquidity risk management practices experienced particularly poor performance compared with their benchmark when faced with higher than normal redemptions).

fund's portfolio, similar to an ongoing stress test, and help better prepare a fund for future stress or other periods where the fund faces higher than typical redemptions.

Based on an analysis of weekly flows of equity and fixed-income funds over a period of more than ten years, outflows greater than 6.6% occurred 1% of the time in a pooled sample across weeks and funds.⁸² Based on this analysis, we estimate that a random fund in a random week has approximately a 0.5% chance of experiencing redemptions in excess of the 10% stressed trade size, and there were 3.4% of weeks where more than 1% of funds experienced net redemptions exceeding the proposed stressed trade size. We believe that weekly outflows at the 99th percentile is a useful approximation of the level of outflows funds may experience in future stressed conditions.⁸³ However, because it is difficult to predict future stress events, including the effect and length of such events—particularly without official sector interventions—we believe it is appropriate to require funds to use a stressed trade size amount of 10%, which is moderately higher than the 6.6% weekly outflow figure discussed above. We also considered, during this same historical period, equity and fixed-income funds had weekly inflows of greater than 8% for 1% of the time in a pooled sample across weeks and funds. In addition, large, concentrated inflows have the possibility of translating to similarly large outflows. For example, if the large inflows are the result of investment by an institutional investor or a fund's inclusion in a model

⁸² Based on an analysis of historical Morningstar weekly fund flow data for equity and fixed income funds from 2009 through 2021. *See infra* sections III.B.4.a and III.C.1.a.i (providing additional equity and fixed income flow data and discussing this analysis in more detail). While some Morningstar data is available for 2008, we have not included that data in our historical flow analyses in this release because of gaps in the 2008 data (*e.g.*, the 2008 dataset covers a more limited set of funds). Other available flow information for 2008, such as from the ICI Fact Book, is not granular enough for purposes of our analyses.

⁸³ We believe weekly outflows is a better proxy for the stressed trade size than daily outflows because stressed conditions may take some time to fully present in flows and often result in outflows that continue over several days or more.

portfolio, the fund may experience similarly large outflows if the investor mandate changes or if the fund is removed from the model portfolio.

Under the proposed approach, a fund would apply its stressed trade size to each investment to determine its liquidity classifications. We have observed that funds generally determine and apply a reasonably anticipated trade size to each investment or asset class currently (commonly referred to as *pro rata* or vertical slice methods). We have also observed, however, that some funds have applied the reasonably anticipated trade size in such a manner that the trading would be satisfied largely by selling the fund's most liquid investments, resulting in smaller assumed trade sizes for purposes of classifying the fund's less liquid investments.⁸⁴ As recognized above, small assumed sale sizes can result in more liquid classifications generally, as sales of small amounts are less likely to affect the market value of the investment significantly and typically can be converted to U.S. dollars more quickly. We are particularly concerned that use of small assumed sale sizes for non-highly liquid investments can overstate the liquidity of these investments and reduce the effectiveness of a fund's liquidity risk management program when a fund needs to sell a larger-than-assumed portion to meet redemptions under stressed conditions or for any other portfolio management reason. Requiring funds to apply the 10% stressed trade size to each investment would better prepare funds to manage their liquidity in stressed conditions, when a fund may be required to sell positions that are larger than the assumed sale sizes some funds are using currently. The amendments to replace the determination of a reasonably anticipated trade size with a stressed trade size are designed to enhance a fund's preparation for stressed conditions, including the potential for sizeable outflows.

⁸⁴ See Liquidity Rule Adopting Release, *supra* note 8, at paragraph accompanying n.1084. We do not suggest that a fund should only, or primarily, use its most liquid investments to meet shareholder redemptions. See *id.*, at n.661 and accompanying paragraph.

We request comment on the proposed requirement for funds to apply a stressed trade size to each investment in their liquidity classification determinations:

1. Should we require funds to use a stressed trade size, as proposed? Would the change from reasonably anticipated trade size to stressed trade size materially change the proportion of investments classified in a given liquidity category? If yes, how? Would the proposed stressed trade size affect certain types of funds more than others? Would the proposed stressed trade size be likely to overstate or understate liquidity?
2. Is the proposed stressed trade size of 10% appropriate? If not, what minimum trade size would be appropriate and why? For example, should we increase or decrease the stressed trade size to, for example, 15% or 5% or some other threshold? Is there other data that should factor into setting the stressed trade size?
3. Should the stressed trade size vary for different types of funds and, if so, how? For instance, should the stressed trade size be a function of the fund's flow history, such as the 99th percentile highest week of the fund's absolute or net flows over a given period (*e.g.*, 3 years, 5 years, 10 years, or the life of the fund)? Should the stressed trade size be the higher of a specified value applied to each investment or the 99th percentile highest week of absolute flows?
4. Should the method of applying the stressed trade size to each investment vary for different types of funds and, if so, how? Are there types of investments that should be excluded or use a different stressed trade size? Are there other, more appropriate methods of applying a stressed trade size across different type of investments and portfolios?

5. Instead of establishing a set stressed trade size, should we set a minimum stressed trade size and provide factors for determining if a fund should have a higher stressed trade size? If so, what factors should funds consider in setting their stressed trade size?

ii. Determining a Significant Change to Market Value

Currently, when a fund makes liquidity classifications under rule 22e-4, it must analyze whether a sale or disposition would significantly change the market value of the investment. In the adopting release for rule 22e-4, the Commission explained that this value impact analysis captures the risk of a fund only being able to meet redemption requests in a manner that significantly dilutes the non-redeeming shareholders.⁸⁵ The Commission established the value impact standard to capture the risk of dilution in cases of inadequate liquidity, while not requiring funds to account for every possible value movement.⁸⁶ We propose to establish a minimum value impact standard that defines more specifically what constitutes a significant change in market value.⁸⁷ We believe the proposed change would improve the quality of funds' liquidity classifications by preventing funds from over-estimating the liquidity of their investments and would improve comparability of funds' liquidity classifications. In addition, the proposed approach is consistent with more effective practices we have observed from some funds and liquidity classification vendors, as discussed below.

Under the current rule, a fund may determine value impact in a variety of ways, depending on the type of asset, or vendor, model, or system used. There also is variation in the depth and sophistication of funds' analyses. We believe the variation in how a fund may

⁸⁵ See Liquidity Rule Adopting Release, *supra* note 8, at paragraph accompanying n.334.

⁸⁶ See *id.*, at paragraph accompanying n.339.

⁸⁷ See proposed rule 22e-4(a) (definition of "Significantly changing the market value of an investment").

determine value impact leads to differences in the quality of funds' classifications, limits comparability of funds' classifications across the same or similar investments, and may cause funds to over-estimate the liquidity of their investments.

The proposed definition of a significant change in market value would require a fund to consider the size of the sale relative to the depth of the market for the instrument.⁸⁸ This would vary depending on the type of investment. For shares listed on a national securities exchange or a foreign exchange, we believe selling or disposing of more than 20% of the security's average daily trading volume would indicate a level of market participation that is significant.⁸⁹ We understand that if a fund sold more than 20% of the average daily trading volume of a listed equity security, such a large sale is likely to result in a significant change in the security's market value, which would dilute remaining investors in the fund. We have observed that a standard based on average daily trading volume is consistent with practices many funds and vendors apply for assessing value impact for listed equity investments today.⁹⁰ To determine average daily

⁸⁸ The proposed rule would continue to provide that an investment's classification is based on a fund's reasonable expectations in current market conditions. *See* Liquidity Rule Adopting Release, *supra* note 8, at section III.C.1.d (discussing comments and suggestions on the consideration of market conditions). Thus, a fund would be able to rely on its reasonable expectations at the time it makes the value impact assessment. Although we are proposing to require funds to assume an element of stressed conditions in their liquidity classifications through the stressed trade size, a broader requirement to predict how an investment may trade in stressed market conditions would introduce additional variables into the classification process that could increase the risk of misclassifications and decrease the data quality of funds' liquidity-related reporting and disclosure.

⁸⁹ Under this proposal, the sale or disposition must be below 20% of the security's average daily trading volume. A fund may choose to impose a stricter limitation of any percentage under 20%, for example, 15% of average daily trading volume.

⁹⁰ Through staff outreach, we observed many funds using some percent of average daily trading volume (*e.g.*, 15%, 20%, or 25%) that the fund's investment can represent if it wants to be able to sell into daily volume without affecting market prices. In practice, this meant funds would estimate the number of days it would take to sell or dispose of the reasonably anticipated trade size without approaching the set percentage of average daily trading volume to avoid impacting the value significantly. We observed funds calculating the average daily trading volume taking into account different sources, and for different time periods, ranging from 10 days to 6 months.

trading volume, we propose to require funds to measure the average daily trading volume over the preceding 20 business days. We believe using a period of 20 business days provides an appropriate measure of daily trading volume, which would reflect current market conditions as well as consider a period of recent market history. The 20 business day period is intended to strike a balance between longer periods that are less reflective of current conditions and shorter periods that can be skewed easily by an abnormally high or low volume day. For purposes of measuring average daily trading volume, the preceding 20 business days include those days where U.S. markets are open but where one or more international markets are closed, such as “Golden Week,” a week in Japan including multiple Japanese public holidays. A fund would count these and any other trading days where shares were not traded as zero volume days for the relevant investment.

For any investments other than shares listed on a national securities exchange or a foreign exchange, such as fixed-income securities and derivatives, we propose to define a significant change in market value as any sale or disposition that a fund reasonably expects would result in a decrease in sale price of more than 1%. Funds currently use a variety of methods to determine significant changes in market value in fixed-income securities, taking into account different groups of comparable securities, asset class characteristics and volatility, number and depth of market makers, bid-offer spread size, volume of the security or similar securities, and elasticity of prices in the security or similar securities. For purposes of the proposed rule, a decrease of more than 1% would indicate a level of value impact that is significant because the fund is selling or disposing of a relatively large position or because the market for the investment has constricted, and bid-ask spreads have widened. We also understand that several commonly employed liquidity models currently use this price decrease measure. We acknowledge that not

all liquidity models specify a price decrease explicitly as the determination for a significant change in market value and some funds would have to make changes to convert to this more objective threshold. The proposed value impact standard would improve funds' abilities to perform quality checks and back testing and would allow the Commission to better analyze classification data across funds.

In considering whether a sale is reasonably expected to result in a price decrease of more than 1%, the fund would be required to consider the size of the sale relative to the depth of the market for the instrument. As part of that analysis, we believe a fund generally should consider, among other things, the width of bid-offer spreads. This is because the width of bid-offer spreads is an important consideration in analyzing the costs of selling a security and thus whether a sale would result in a price decrease exceeding 1%. For example, a sale would be more likely to result in a price decline of more than 1% if the trade size is large in relation to the market for that instrument or if bid-ask spreads are wide, or if both are the case. Wide, or widening, bid-ask spreads may indicate a lower level of demand for the instrument, which makes it more likely that a sale of the instrument would result in a price decline of more than 1%.

We request comment on our proposed definition of significant change in market value:

6. Would funds have to make significant changes to their liquidity classification methodologies to reflect the proposed amendments to the value impact standard? If so, what effect would those changes have on a fund's liquidity risk management program?
7. Should we define value impact through average daily trading volume or price decline, as proposed? Should we use a different definition of value impact instead, and if so,

- should it depend on the type of investment? Should different types of funds have different value impact standards? If yes, what standards, and for what types of funds?
8. For shares listed on a national securities exchange or a foreign exchange, should we define a significant change in market value as selling or disposing of more than 20% of the average daily trading volume, as proposed? Are there other types of investments for which an average daily trading volume test would be appropriate? For example, is there data available for fixed-income securities that funds could use objectively to analyze market participation under a value impact standard?
 9. Should the percent of average daily trading volume be higher or lower (*e.g.*, 15% or 25%)? Should the measurement period for the average daily trading volume be longer or shorter than the proposed 20 business days (*e.g.*, 10, 30, or 40 business days)? Should days where shares were not traded be counted as zero volume days as proposed or in some other manner? Are there circumstances in which the average daily trading volume test should vary by instrument, type of instrument, or trading venue?
 10. For investments that are not listed on a national securities exchange or foreign exchange, should we define a significant change in market value as any sale or disposition that the fund reasonably expects would result in a price decline of more than 1%, as proposed? Should the identified percentage be higher or lower (*e.g.*, 0.5% or 2%)? Should this standard for determining a significant change in market value apply to all investments? Would funds need additional guidance or parameters to measure this standard consistently, including what inputs or comparable investments may be used in determining the price decline?

11. Should the 1% price decline definition of value impact be applied against the fund's last valuation of an investment, which would include both the effect of the fund's sale and market moves?

iii. Removing Asset Class Classification

Under current rule 22e-4, a fund may generally classify and review its portfolio investments (including the fund's derivatives transactions) according to their asset class. However, a fund must separately classify and review any investment within an asset class if the fund or its adviser has information about any market, trading, or investment-specific considerations that are reasonably expected to significantly affect the liquidity characteristics of that investment as compared to the fund's other portfolio holdings within that asset class.⁹¹ The current provision was intended to strike a balance between reducing operational burdens associated with classification and providing reasonably precise liquidity classifications that appropriately reflect investments' liquidity characteristics.⁹² The burden to determine individual investment classifications may have decreased since the adoption of the rule for many funds as these funds became more familiar with and developed their liquidity risk management programs and, in some cases, developed automated processes for classifying investments or employed sophisticated liquidity classification vendors that provide economies of scale. In addition, in practice there may be weaknesses in asset class level classifications that may result in a lack of reasonably precise classifications. Therefore, we propose to remove the asset class method of classification from the rule.

⁹¹ See rule 22e-4(b)(1)(ii)(A).

⁹² See Liquidity Rule Adopting Release, *supra* note 8, at section III.C.3.a. The current approach was also intended to leverage fund managers' current practices and to recognize that many investments within an asset class may be considered interchangeable from a liquidity perspective.

Through outreach, we understand that asset class level classifications are not widely used by many funds. But, where these asset class level classifications are used, this method runs the risk of over-estimating the liquidity of a fund's investments and not adjusting quickly in times of stress. After a fund has begun to use asset class level classifications, and particularly if classifications are reviewed only on a monthly basis, it might be difficult for a fund to identify instances where a given investment's liquidity characteristics do not align with the characteristics of other investments in the asset class because individual investment liquidity data is not being collected and analyzed. Through outreach, we observed that funds generally established a process and timing for liquidity assessments and did not change those processes or timing as market conditions changed, and particularly were unlikely to do so under stressed conditions. For example, during a stress event like March 2020, a fund using asset class level classifications may not be equipped to re-classify a subset of investments in an asset class adeptly in response to changing conditions that affect those investments directly. Also, because funds classify a significant portion of their holdings as highly liquid, we believe this potential gap in identifying investments that a fund should classify differently from other investments in the asset class is more likely to over-estimate, rather than under-estimate, the liquidity of a fund's investments. These tendencies run counter to the premise of the current rule's classification system, which presumed that a fund would use efficiencies such as asset class level classifications and monthly review of classifications only when market conditions or other factors did not indicate that a shift to a more granular or frequent classification is appropriate.⁹³ Therefore, we are proposing to

⁹³ See rule 22e-4(b)(1)(ii) (identifying the circumstances in which a fund must review its portfolio investments' classifications more frequently than monthly); rule 22e-4(b)(1)(ii)(A) (identifying the circumstances in which a fund must separately classify and review an investment within an asset class instead of classifying according to the investment's asset class).

remove asset class level classifications to provide more precise liquidity classifications that appropriately reflect investments' liquidity characteristics.

Moreover, asset class level classifications are not compatible with the other changes we are proposing to the classification framework, including the proposed definitions of the value impact standard. It would also be difficult for a fund to meaningfully apply at the asset class level a standard based on average daily trading volume or a price decline in a given investment because the average trading volume, or market depth generally, can vary from investment to investment even within the same asset class. Classifying each investment separately therefore allows a more precise assessment of that investment's liquidity. In addition, because the proposed rule would include specific minimum standards for classifying investments, it may reduce burdens of classifying investments while improving the quality of classifications relative to the current rule, consistent with the Commission's objectives in originally allowing asset class level classifications. Finally, staff has observed through outreach that liquidity risk management programs have developed so that specific and individual portfolio investment liquidity classifications are widely used and the removal of asset class level classifications is consistent with that approach.

We request comment on the proposed removal of the provision permitting funds to classify the liquidity of their investments by asset class.

12. Should we preserve the ability of funds to use asset classes for liquidity

determinations, as currently permitted? To what extent do funds currently rely on the provision allowing liquidity classifications by asset class? Would it be more or less burdensome for funds to classify investments individually under the proposal's specific minimum standards (such as the stressed trade size and the defining the value

- impact standard) than to separately classify any investment within an asset class whenever the fund or its adviser has market, trading, or investment-specific information indicating that the investment should be classified separately rather than as part of the relevant asset class?
13. Would the operational burden of individually classifying be balanced by the improved quality of data for each individual investment as compared to classifying by asset class? To what extent would investment-by-investment classifications differ compared to asset class level classification? Are there other benefits to removing asset class level classification, such as timely, useful, improved, or increased data?
14. Is reliance on this provision more common for certain types of funds or certain asset classes? Should asset class level classifications be limited to specific types of funds or asset classes?
15. If we permitted asset class level classifications, how should the stressed trade size and value impact standard in the proposal apply to asset class level classifications?

b. Amendments to Liquidity Classification Categories

We are proposing changes to the liquidity classification categories to improve funds' abilities to make timely payment on shareholder redemptions, without the sale of portfolio investments resulting in the dilution of outstanding fund shares. Section 22(e) of the Act establishes a right of prompt redemption in open-end funds by requiring such funds to make payments on shareholder redemption requests within seven days of receiving the request. In March 2020, in connection with the economic shock from the onset of the COVID-19 pandemic, open-end funds faced a significant amount of investor redemptions, and we believe additional

changes to rule 22e-4 would assist funds in managing investor redemptions in future stressed conditions.

Rule 22e-4 currently allows funds to classify as less liquid investments those that the fund reasonably expects to be able to sell or dispose of in seven calendar days or less without significantly changing the market value of the investment, but that are reasonably expected to settle in more than seven calendar days.⁹⁴ Under the current rule, an investment is classified as illiquid if it cannot be sold or disposed of in seven calendar days or less without significantly changing the market value of the investment.⁹⁵ We propose to eliminate the less liquid classification category and amend the definition of illiquid investment to include those investments that a fund reasonably expects not to be convertible to U.S. dollars in current market conditions in seven calendar days or less without significantly changing the market value of the investment, as well as those investments whose fair value is measured using an unobservable input that is significant to the overall measurement.⁹⁶ Under the proposal to eliminate the less liquid classification category, the rule would therefore have only three liquidity classifications: highly liquid investments, moderately liquid investments, and illiquid investments. We also propose to amend the term “convertible to cash” to “convertible to U.S. dollars,” codifying prior Commission statements.⁹⁷ Finally, we propose to specify how to count the identified number of days an investment is convertible to U.S. dollars for purposes of the liquidity categories.

⁹⁴ See rule 22e-4(a)(10) (defining “less liquid investment”).

⁹⁵ See rule 22e-4(a)(8) (defining “illiquid investment”).

⁹⁶ See proposed rule 22e-4(a).

⁹⁷ See Liquidity Rule Adopting Release, *supra* note 8, at n.848 (“Cash means cash held in U.S. dollars, and would not include, for example, cash equivalents or foreign currency.”).

i. Removing the Less Liquid Investment Category and Classifying these Investments as Illiquid

We propose to eliminate the less liquid classification category and amend the definition of illiquid investment to include investments, in part, that a fund reasonably expects not to be convertible to U.S. dollars in seven calendar days or less without significantly changing the market value of the investment. Investments that funds currently classify as less liquid would become illiquid investments under the proposed amendments, absent changes to shorten the settlement time of many of those investments. Section 22(e) of the Act requires open-end funds to make payment on shareholder redemption requests within seven days of receiving the request. The proposed amendment to define an investment as illiquid if it does not settle to U.S. dollars in seven calendar days is designed to reduce the mismatch between the receipt of cash upon the sale of assets with longer settlement periods and the payment of shareholder redemptions. This would help prepare funds for future stressed conditions by reducing the risk of a fund not being able to meet shareholder redemptions. Unlike the current rule, the proposed rule would directly limit to 15% the amount of fund assets that are not reasonably expected to be convertible to U.S. dollars in seven days.

While funds may classify different types of investments as less liquid investments today, the most common type of investment in this category is bank loans.⁹⁸ Fund investments make up approximately 15% of the bank loan market.⁹⁹ Filings on Form N-PORT show that over 90% of

⁹⁸ Based on Form N-PORT data, bank loans made up 77% and 60% of investments reported as less liquid in Feb. and Mar. 2020, respectively. In addition to bank loans, a smaller number of fixed-income securities, mortgage-backed securities, and equities are categorized as less liquid investments.

⁹⁹ See Leveraged Loan Primer (last visited Oct. 4, 2022), *available at* <https://pitchbook.com/leveraged-commentary-data/leveraged-loan-primer#market-size> (stating that the Morningstar LSTA U.S. Leveraged Loan Index, which is used as a proxy for market size in the U.S., totaled approximately \$1.375 trillion as of Feb. 2022). As of Dec. 2021, there are 746 open-end funds that classified approximately \$204 billion in bank loan interests as reported on Form N-PORT. Using this data, we estimate that funds held approximately 15% of the bank loan

bank loan investments reported by open-end funds are classified as less liquid.¹⁰⁰ In 2015, commenters addressing concerns about liquidity in the bank loan market stated that significant efforts were then underway to materially improve settlement times in the bank loan market, which are typically longer than other asset classes.¹⁰¹ Bank loans are not standardized and have individualized legal documentation. This provides flexibility of terms for bank loans, but also increases the time for a fund to settle a bank loan trade and receive proceeds from the sale, thus increasing the risk of the fund not being able to meet shareholder redemptions.¹⁰²

Around the time that the Commission adopted the liquidity rule, the median settlement time for a loan sale was about 12 days.¹⁰³ In the Liquidity Rule Adopting Release, the Commission stated that a fund may need to consider re-classifying an investment as illiquid in the event of an extended settlement period.¹⁰⁴ By July 2021, the average time to settle a bank loan par trade in the secondary market increased to a then seven-year high of T+23, and the median was at T+15.¹⁰⁵ While median settlement time for bank loans in which funds invest has generally

market.

¹⁰⁰ Based on Form N-PORT data, in 2021, more than 90% of the gross value of loans reported by open-end funds were classified as less liquid. This was also the case in Feb. and Mar. 2020.

¹⁰¹ See, e.g., Comment Letter of the Loan Syndications and Trading Association on 2015 Proposing Release, *supra* note 31, File No. S7-16-15, available at <https://www.sec.gov/comments/s7-16-15/s71615-57.pdf> (“LSTA Comment Letter”) (stating the goal of transforming syndicated loan settlement to a similar settlement period as most other asset classes).

¹⁰² See *id.*

¹⁰³ See LSTA Comment Letter.

¹⁰⁴ See Liquidity Rule Adopting Release, *supra* note 8, at n.380 and accompanying text.

¹⁰⁵ See LSTA, Secondary Trading & Settlement: Monthly July Executive Summary (Aug. 19, 2021), available at https://www.lsta.org/news-resources/secondary-trading-settlement-monthly-july-executive-summary/?utm_source=rss&utm_medium=rss&utm_campaign=secondary-trading-settlement-monthly-july-executive-summary. In addition, fewer trades settled within T+7, (just 20% of trades settled within the LSTA guideline during July, a nine-percentage point reduction from the previous year’s monthly average) and settlements wider than T+20 increased 10-percentage points as of July 2021, to a 39% market share, nearly double that of the T+7 distribution.

increased, Form N-PORT data has not shown funds reclassifying these investments to take into account extended settlement times.

We are proposing changes to remove the less liquid investment classification to reduce the risk that funds that invest significantly in less liquid investments may not be able to meet shareholder redemptions. While bank loan funds were able to meet redemption requests during March 2020, a period of significant outflows, we are concerned that they may not be able to meet shareholder redemptions in future stressed conditions, especially as investments in this asset class increase. During the month of March 2020, bank loan funds experienced outflows of approximately 13% of assets, more than any other type of fund. In addition, since March 2020, total registered investment company investments in bank loans have increased 50% to approximately \$200 billion.¹⁰⁶ We understand that in past times of large outflows, the median buy-side settlement time for bank loans generally decreased and funds had a degree of success in effecting shorter settlement periods for these investments to help meet redemptions.¹⁰⁷ We are concerned, however, that in future stress events these attempts to shorten settlement times may fail since loans are not standardized, have individualized legal documentation, and rely on manual processes for settlement. We also understand that funds with significant extended settlement investments have used borrowing through lines of credit to meet redemptions, but lines of credit may not be available to all funds and borrowing imposes costs that can dilute the value of the fund for remaining investors. Based on Form N-CEN filings, several bank loan

¹⁰⁶ This is based on Form N-PORT information as of Jan. 31, 2022.

¹⁰⁷ See LSTA Comment Letter (stating that settlement times have decreased in periods of large outflows, for example, in Aug. 2011, when bank loan funds experienced \$8 billion of outflows (approximately 13% of assets). Similarly, in Mar. 2020, when bank loan funds experienced \$12 billion of outflows (approximately 13% of assets), we understand that settlement times also generally decreased.

funds have accessed their lines of credit in their most recent reporting period.¹⁰⁸ We understand that the costs of borrowing have risen and credit has become more difficult to obtain over time.

We believe that investments that funds currently classify as less liquid should be classified as illiquid investments and be subject to the 15% limit on illiquid investments, so that funds may be better prepared to satisfy redemptions in future stressed conditions without delay and without significant dilution. Using Form N-PORT data, we estimate that approximately 200 funds during March 2020 would have had illiquid investments over the 15% limit if this proposed change had been in effect, with bank loan funds being the largest type of affected fund.¹⁰⁹ As a result of the proposed amendments, more bank loan funds may contract for expedited settlement, which would involve costs. Alternatively, advisers with strategies that have 15% or more of assets in investments classified as less liquid and illiquid may change those strategies, close funds, or consider using a closed-end fund or other investment vehicle structure that is not subject to rule 22e-4. Further, potential additional demand for these investments could provide incentives to shorten the settlement cycle for bank loans more generally, which may reduce trading costs.¹¹⁰ We believe that these amendments would reduce the risk of a fund not being able to satisfy redemptions without diluting the interests of remaining shareholders while waiting for the proceeds from the sale of an investment with extended settlement.

ii. Additional Amendments to the Definition of Illiquid Investment

We also propose to amend the definition of illiquid investment to include investments whose fair value is measured using an unobservable input that is significant to the overall

¹⁰⁸ See *infra* note 459 and accompanying text (providing information about bank loan funds' use of lines of credit as of Dec. 2021).

¹⁰⁹ The number of funds is estimated by dividing the aggregate gross value in the relevant categories by the aggregate gross value reported.

¹¹⁰ See *infra* section III.C.1.b.

measurement. U.S. GAAP establishes a fair value hierarchy that categorizes into three levels the inputs to valuation techniques used to measure fair value.¹¹¹ The fair value measurements of investments are categorized in accordance with this three-level hierarchy. The highest-level measurements are those developed using quoted, observable inputs in active markets for identical assets and liabilities (Level 1), such as prices for identical investments on a securities exchange; the lowest are those developed using unobservable inputs (Level 3).¹¹² We acknowledge that observability is a valuation concept and may not always correspond to liquidity. The proposed amendment would require those funds not already classifying investments valued using unobservable inputs that are significant to the overall measurement as illiquid to change their classification practices and may change the liquidity profile for those funds under the rule to be less liquid. To the extent there is a liquid market for affected investments, this proposed amendment would cause funds to over-estimate the illiquidity of their portfolios. As of December 2021, 2,006 open-end funds held investments that were valued using unobservable inputs that are significant to the overall measurement (Level 3 investments), comprising \$76.3 billion, or 0.27% of all open-end fund assets.¹¹³ Among these, \$16.9 billion

¹¹¹ See FASB ASC 820-10-35-37, which sets out a fair value hierarchy for accounting purposes, as compared to rule 2a-5, which provides a framework for fund valuation practices and determining fair value (including applying an appropriate methodology consistent with the principles of FASB Accounting Standard Codification Topic 820: Fair Value Measurement (“ASC Topic 820”)) for purposes of the Act. See Good Faith Determinations of Fair Value, Investment Company Act Release No. 34128 (Dec. 3, 2020) [86 FR 748 (Jan. 6, 2021) (“Valuation Adopting Release”)].

¹¹² See ASC Topic 820. U.S. GAAP requires funds to maximize the use of relevant observable inputs and minimize the use of unobservable inputs in valuing any asset or liability. In some cases, the inputs used to measure fair value might be categorized within different levels of the fair value hierarchy. In those cases, the fair value measurement is categorized in its entirety in the same level of the fair value hierarchy as the lowest level input that is significant to the overall measurement. See ASC 820-10-35-16AA and 820-10-35-37A. Examples of particular assets and liabilities that may be measured using Level 3 inputs include long-dated currency swaps, three-year options on exchange-traded shares, interest rate swaps, asset retirement obligations at initial recognition, and reporting units. See FASB ASC 820-10-55-22.

¹¹³ See *infra* note 424 and accompanying paragraph. We observed that the investments classified as highly liquid that were Level 3 investments primarily were mortgage-backed securities.

were classified as highly liquid investments and \$2.1 billion as moderately liquid investments.¹¹⁴ Accordingly, we estimate that approximately 0.07% of all open-end fund assets would be affected by this amendment.

Where an investment is valued using unobservable inputs that are significant to the overall measurement, this may indicate that an active, liquid, and visible market for the investment does not exist. Where there is no active, liquid, and visible market for an investment, there may be a corresponding risk that the fund cannot sell the investment in time to meet redemptions without dilution. The proposal defines investments whose fair value is measured using unobservable inputs that are significant to the overall measurement as illiquid for purposes of this rule, which is intended to reduce this risk. By classifying these investments as illiquid, the proposal would establish a minimum standard for classifying the liquidity of an investment, which is designed to provide more consistent guideposts for liquidity classifications.

iii. Other Amendments Related to Liquidity Classification Categories

Amendments to the Definition of Moderately Liquid Investment

We propose to simplify the definition of moderately liquid investment to mean any investment that is neither a highly liquid investment nor an illiquid investment.¹¹⁵ The moderately liquid investment category would continue to provide information about the portion

¹¹⁴ We recognize that, in light of the proposed removal of the less liquid category, only those investments valued using unobservable inputs that are significant to the overall measurement that are classified as highly liquid or moderately liquid would be affected by this proposed amendment.

¹¹⁵ We also are proposing to remove a provision that addresses how to classify an investment that could be viewed as either a highly liquid investment or a moderately liquid investment because the ambiguity in classification that provision addresses is no longer present under the proposed amendments to those classifications. *See* note to paragraph (b)(1)(ii) introductory text in current rule 22e-4.

of a fund's portfolio that is not on the most liquid end of the spectrum, but that still is sufficiently liquid to meet redemption requests within the statutory seven day period.

Amendments to the Definition of Convertible to Cash and References to Cash

We propose to amend the term “convertible to cash” to “convertible to U.S. dollars” and to make conforming amendments to the definition of this term to refer to the ability for a fund to sell or dispose of an investment, and for it to settle in U.S. dollars.¹¹⁶ These amendments codify prior Commission statements. In the adopting release for rule 22e-4, the Commission stated that cash means “cash held in U.S. dollars, and would not include, for example, cash equivalents or foreign currency.”¹¹⁷ The Commission also provided an example in that release in which the period of time it took to repatriate or convert a foreign currency to dollars factored into the analysis of how quickly a foreign security could convert to cash.¹¹⁸ Some funds are classifying foreign investments as highly liquid taking into account solely the time it would take to convert the proceeds of a sale to the foreign currency. Similarly, some funds classify foreign currency as highly liquid without further analysis about the time that would be needed to convert that currency to U.S. dollars. We believe it is important to view the liquidity of fund investments in terms of convertibility to U.S. dollars within a specified period so that a fund is able to satisfy

¹¹⁶ See proposed rule 22e-4(a) (defining “convertible to *U.S. dollars*” as the ability to be sold or disposed of, with the sale or disposition settled *in U.S. dollars*) (emphasis added). We also propose to amend the definition of convertible to U.S. dollars to refer to disposition of an investment, and not only sales. This is a conforming amendment, as current rule 22e-4 classifications otherwise refer to the ability to sell or dispose of an investment.

¹¹⁷ See Liquidity Rule Adopting Release, *supra* note 8, at n.848.

¹¹⁸ See *id.*, at paragraph accompanying n.379 (providing an example where certain foreign securities may be able to be sold in seven calendar days or less, but may be subject to capital controls that would limit the extent to which the foreign currency could be repatriated or converted to dollars within this time frame and explaining that these securities would be considered to be less liquid investments because they would be reasonably expected to settle in more than seven calendar days).

redemption requests in U.S. dollars.¹¹⁹ This amendment is intended to promote the ability of funds to meet redemptions without diluting the interests of the remaining shareholders and increase consistency in how funds classify the liquidity of investments, including in foreign investments and foreign currencies. In addition to the definition of convertible to cash, we also propose to amend other references in rule 22e-4 to refer to U.S. dollars instead of cash for consistency and clarity.¹²⁰

Method for Counting the Number of Days

We propose to specify when a fund must start to measure the identified number of days in which it reasonably expects a stressed trade size of an investment would be convertible to U.S. dollars without significantly changing its market value. Currently, the rule does not directly specify when to begin counting the number of days an investment would be convertible to U.S. dollars, and funds have inconsistent practices as to when they begin this measurement. This inconsistency may lead certain funds to overestimate their liquidity classifications, and reduce their ability to meet redemptions. This also detracts from comparability when analyzing trends across funds. For example, some funds may consider an investment highly liquid if it could be converted to U.S. dollars three business days after the date of the classification analysis, while others include the date of classification when counting the number of days. Those funds that begin counting after the date of the classification would have the advantage of counting an additional day as compared to those funds that include the date of classification, and their liquidity classifications may appear to be more liquid than a similar fund that begins counting on

¹¹⁹ See *id.*, at n.105 and accompanying text (noting concerns about the potential mismatch between the timing of receipt of cash for sales of fund assets and the payment of cash for shareholder redemptions).

¹²⁰ See proposed rule 22e-4(a) (defining “highly liquid investment” and “in-kind exchange traded fund”); and proposed rule 22e-4(b)(1)(i)(C) (listing liquidity risk factors).

the date of classification. Therefore, we propose to specify that funds must count the day of classification when determining the period in which an investment is reasonably expected to be convertible to U.S. dollars.¹²¹ For example, in order for a fund to classify an investment as highly liquid on Monday, it would need to reasonably expect that the investment could be sold and settled to U.S. dollars by Wednesday at the latest.

We request comment on the proposed amendments to the liquidity classification categories:

16. As proposed, should we eliminate the less liquid investment category and amend the illiquid investment definition to include an investment that a fund reasonably expects can be sold within seven calendar days without significantly changing the market value but is not convertible to U.S. dollars within that period (*i.e.*, investments that are currently classified as less liquid under the rule)? What effect would these proposed amendments have and how would those funds that significantly invest in such less liquid investments likely change?
17. Would the proposed amendment cause funds that currently hold less liquid investments to contract for expedited settlement for such investments? What are the advantages or limitations of contracting for expedited settlement? Would the proposed amendments provide an incentive to reduce settlement times in bank loan and other relevant markets more generally? If so, how long might it take to reduce settlement times in response to the rule and what would be the burdens associated with this change? Are there certain categories of bank loans or other investments for which market participants may be unable to reduce the settlement time to seven

¹²¹ See proposed rule 22e-4(b)(1)(ii)(A).

- calendar days or less? Which investments and why? What other effects may occur, for example, would some funds change their strategies, liquidate, or choose to be structured as a different investment vehicle, such as a closed-end fund? If some funds would convert to closed-end funds, what type of closed-end fund would they likely choose (*e.g.*, interval fund, or a closed-end fund listed on an exchange)? Should we amend other rules, or provide relief from any specific rules or provisions of the Federal securities laws, to expedite changes to strategies or conversions to closed-end funds or other investment vehicles?
18. Some funds classify certain bank loans as highly liquid or moderately liquid today. What characteristics of these bank loans lead to a reasonable expectation that they will be convertible to cash in seven days or less without significantly changing the market value? Are funds considering contracts for expedited settlement? Would funds need additional guidance on how to assess the period in which a bank loan or other investment is *reasonably expected* to be convertible to U.S. dollars? For example, should we revise the proposed rule to require that funds consider, or provide guidance suggesting that funds may wish to consider: settlement time history for the individual or similar investments, average settlement times for the market, and guarantees for settlement or expedited settlement, as well as the contractual settlement period?
19. Have the costs of borrowing risen and has credit become more difficult to obtain over time for bank loan funds, particularly during stressed periods?
20. As proposed, should we remove the less liquid category and require funds to use a three category classification framework? Would the proposed changes simplify classifications and reduce burdens over time, after funds updated systems to reflect

the change? Would the proposed changes appropriately reflect the liquidity of a fund, or would the current framework be more appropriate? Should funds be permitted to invest above 15% in less liquid investments if there are other methods or mechanisms to reduce the mismatch between the receipt of cash upon the sale of assets with longer settlement periods and the payment of shareholder redemptions or to address potential dilution associated with this mismatch? If so, what other methods or mechanisms should these funds be required or permitted to use (for example, swing pricing, gates to suspend redemptions, redemption fees, redemptions in kind, additional limits on less liquid investments, notice periods, or lengthening the settlement period for paying redemptions)?¹²² If we permit (to the extent not already permitted) or require use of one or more of these tools, how should they be used (individually, in some combination with each other, or with other protections, such as disclosure, board approval, and Commission reporting)? Should we amend other rules, or provide relief from any specific rules or provisions of the Federal securities laws, to expedite or permit use of these methods and mechanisms?¹²³

21. Should we provide that an investment is illiquid if it is not reasonably expected to be convertible to U.S. dollars in a shorter or longer period than seven calendar days?

How would a shorter or longer period align with the requirement in section 22(e) of the Act for a fund to satisfy redemptions within seven days? If we provided a longer

¹²² With a notice period, an investor's redemption request would not be processed until the end of a notice period (*e.g.*, after 2 to 5 days). The investor would receive the next calculated price after the notice period ends, with payment occurring at the end of a settlement period. With a lengthened settlement period, a redeeming investor would receive the price next calculated after submitting the redemption order but would not receive payment until the end of a lengthened settlement period (*e.g.*, 5 to 7 days after trade date).

¹²³ *See, e.g.*, section 22(e) of the Act (providing the conditions under which a registered investment company may suspend the right, or postpone the date, of redemption for more than seven days).

- period of time to convert to U.S. dollars before an investment is classified as illiquid, how would funds prepare for the potential mismatch during stressed situations between the amount of available cash and the size of shareholder redemptions? Should we provide additional exemptions to allow funds to delay redemptions to shareholders under certain limited circumstances and conditions, such as independent director approval?
22. Are there circumstances in which an investment is fair valued using an unobservable input that is significant to the overall measurement, but the investment should not be treated as illiquid for purposes of the rule? Please explain and provide supporting data. Should we permit a fund to classify certain types of investments that are fair valued using unobservable inputs that are significant to the overall measurement as highly liquid or moderately liquid and, if so, which types? Should we instead treat investments that are fair valued using unobservable inputs that are significant to the overall measurement as presumptively illiquid, but permit funds to rebut this presumption? If so, what process should we require for rebutting the presumption? For example, should we require funds to maintain records describing why they did not classify such an investment as illiquid? Should we require funds to disclose on Form N-PORT any circumstances in which they did not classify such an investment as illiquid?
23. Are there other types or characteristics of investments that we should include in the definition of illiquid investment? If so, which ones?
24. Should we amend the definition of moderately liquid investment, as proposed? Alternatively, should we retain the details in the current definition that specify the

- number of days in which a fund must reasonably expect an investment to be convertible to U.S. dollars in order to classify it as moderately liquid?
25. Would the proposed changes to the liquidity classifications affect investment options available to investors? For example, would bank loan funds only be available in non-open-end investment vehicles? What effect would these proposed changes have on those asset classes that are less available for investment by open-end funds for liquidity reasons, the availability of credit to borrowers, and more generally, on capital formation?
26. Should we amend the definition of convertible to cash and other references to cash in rule 22e-4 to refer to U.S. dollars, as proposed? Would these amendments raise issues for specific types of funds? If so, which ones and how? Would these amendments affect funds' investment strategies, including their allocation to foreign investments and U.S. dollars, or their performance?
27. Are there circumstances in which a fund would pay redemptions in a different currency than U.S. dollars? If so, would it be appropriate for that fund to be able to assess the time in which an investment could convert to that other currency for purposes of the rule?
28. In addition to sale and disposition, are there other ways an investment may be converted to U.S. dollars that should be included in the definition of convertible to U.S. dollars? If so, what are they?
29. Would the amendment to refer to U.S. dollars instead of cash in the definitions of highly liquid investment and convertible to cash materially change how funds classify highly liquid investments currently? If so, how?

30. Should we require funds to include the day of classification when counting the number of days to convert to U.S. dollars as proposed, or should we require funds to begin to count the number of days to convert to U.S. dollars on the following day? What are the advantages and disadvantages of this alternative? Would this alternative result in less conservative liquidity classifications for some funds or investments (*i.e.*, by causing some investments that otherwise would have been classified as moderately liquid to be classified as highly liquid) or impair a fund's ability to meet redemptions?
31. Instead of using the days an investment would be convertible to U.S. dollars in the liquidity classifications as proposed, should we separately set the number of days to: (1) make the trade; and (2) settle the trade or otherwise dispose of an investment, in determining liquidity classifications? Why or why not? Is there a different way the rule should measure the period that an investment is convertible to U.S. dollars?

c. Frequency of Classifications

Rule 22e-4 currently requires that funds review their liquidity classifications at least monthly in connection with reporting on Form N-PORT, and more frequently if changes in relevant market, trading, and investment-specific considerations are reasonably expected to materially affect one or more of their investments' classifications.¹²⁴ The current rule also requires a fund to monitor and take timely actions related to the liquidity of its investments, including changes to its liquidity profile. Specifically, the rule prohibits a fund from acquiring any illiquid investment if, immediately after the acquisition, the fund would have invested more than 15% of its net assets in illiquid investments that are assets.¹²⁵ In addition, the rule requires a fund to provide timely notice to its board, and to the Commission on Form N-RN, if the fund

¹²⁴ See rule 22e-4(b)(1)(ii).

¹²⁵ See rule 22e-4(b)(1)(iv).

exceeds the 15% limit on illiquid investments, or if there is a shortfall of the fund's highly liquid investments below its highly liquid investment minimum for seven consecutive calendar days.¹²⁶

We propose amendments to require a fund to classify all of its portfolio investments each business day instead of at least monthly.¹²⁷ Daily classification would reflect current market conditions more accurately and would provide funds with more data for analysis to prepare for future stressed conditions. We believe that daily classifications would assist liquidity risk program administrators in better monitoring of a fund's liquidity and enhance a fund's ability to more rapidly respond to changes that affect the liquidity of the fund's portfolio, reflecting more effective practices we have observed. In addition, daily classifications would help ensure that funds timely report shortfalls below the highly liquid investment minimum or breaches of the 15% limit on illiquid investments to the fund's board and to the Commission, which would better achieve the goals of the current provisions to provide board and Commission oversight of the fund's liquidity risk management program and its effectiveness.

Most funds did not report reclassifications of their portfolio investments despite extraordinary liquidity constraints in March 2020.¹²⁸ Based on the liquidity classification

¹²⁶ See rule 22e-4(b)(1)(iv)(A) and rule 22e-4(b)(1)(iii)(A)(3); Form N-RN Parts B through D.

¹²⁷ See proposed rule 22e-4(b)(1)(ii). Although rule 22e-4 currently requires funds to classify each of the fund's portfolio investments (including each of the fund's derivatives transactions), we have observed that some funds are not classifying all investments in their portfolios, such as positions in to-be-announced (TBA) contracts to trade mortgage-backed securities or the reinvestment of cash collateral received in securities lending arrangements.

¹²⁸ Despite the liquidity constraints in Mar. 2020, we observed through Form N-PORT filings that roughly 75% of funds did not reclassify any investment held in both Feb. and Mar. 2020. Specifically, roughly 80% of U.S. equity funds did not reclassify any holding that was held in both Feb. and Mar. 2020, while roughly 10% reclassified at least one investment into a more liquid category and roughly 13% reclassified at least one investment into a less liquid category. Roughly 55% of taxable bond funds reclassified on average 4% of their portfolios, with the median fund reclassifying 1% of its portfolio. Of the funds that reclassified, roughly 30% reclassified at least one investment into a more liquid category and roughly 44% reclassified at least one investment into a less liquid category. More funds did, however, reclassify in Mar. 2020 period than for either Feb. or Apr. 2020.

practices we observed in March 2020 and on filings covering this period, we are concerned that some funds effectively are equipped to classify their investments primarily on a monthly basis to meet reporting requirements and are not prepared to review classifications intra-month. Because intra-month analyses for these funds would be out of the ordinary and only occur when a fund determines that changes in relevant market, trading, and investment-specific considerations are reasonably expected to materially affect one or more of their investments' classifications, it may be especially challenging during stressed conditions for these funds to reclassify their investments intra-month. Requiring daily classification, while involving costs, may ultimately lead to a more efficient classification process for funds than monitoring trading conditions to determine if and when intra-month classifications are required. For example, a daily classification requirement, in combination with the minimum standards we propose for trade size and value impact, may lead funds to modify their liquidity classification processes, which would make the process more standardized, timely, and efficient.

We request comment on the proposed amendments to require funds to classify the liquidity of their investments on a daily basis.

32. Should we require funds to classify all portfolio investments on a daily basis, as proposed? Would this proposed amendment result in a material change to how funds are currently classifying? To what extent do funds already classify the liquidity of their investments on a daily basis or collect the information they would need to classify daily? Would this proposed amendment better integrate liquidity risk management and portfolio management systems?
33. We also are proposing that funds use a stressed trade size and a defined value impact standard in determining liquidity classifications. Would those changes affect the

burdens of classifying on a daily basis? Would those effects be different for different types of funds? For example, would it be easier to determine on a daily basis whether the sale of a stressed trade size of shares listed on an exchange would exceed 20% of the average daily trading volume for those shares than to determine whether the sale of a stressed trade size of other investments would result in a price decline of more than 1%?

34. Instead of classifying on a daily basis, should we require funds to classify the liquidity of their investments at some other frequency (*e.g.*, weekly, biweekly, or monthly)? If so, should we maintain the requirement for a fund to classify more frequently if changes in relevant market, trading, and investment-specific considerations are reasonably expected to materially affect one or more of its investments' classifications? Is there a different approach we should use effectively to require a fund to classify its investments in response to changing conditions? Are there certain types of funds that should be excluded from daily classifications? If so, which funds?
35. If we require funds to classify on a non-daily frequency, how would they monitor for compliance with the 15% limit on illiquid investments and the highly liquid investment minimum? How are those limits monitored for compliance now?

2. Highly Liquid Investment Minimums

a. Proposed Scope of the Requirement and Determination of the Minimum

Rule 22e-4 currently requires a fund to determine a highly liquid investment minimum if it does not primarily hold assets that are highly liquid investments. Funds that are subject to the highly liquid investment minimum requirements must determine a highly liquid investment

minimum considering several factors, review the minimum at least annually, and adopt policies and procedures to respond to a shortfall of the fund's highly liquid investments below the minimum required.¹²⁹ We propose to require all funds to determine and maintain a highly liquid investment minimum of at least 10% of the fund's net assets, which is equivalent to the stressed trade size. In connection with this proposed requirement, we would remove the exclusion for funds that primarily invest in highly liquid investments (the "primarily exclusion"). The proposed amendments are designed to ensure that funds have sufficient liquid investments for managing stressed conditions and heightened levels of redemptions.

We assessed liquidity-related data reported on Forms N-PORT, as well as the development of liquidity risk management programs, through staff outreach to funds and advisers. Based on Form N-PORT filings, most funds do not determine a highly liquid investment minimum and instead rely on the primarily exclusion.¹³⁰ For those funds that have highly liquid investment minimums, the rule currently requires that they consider various liquidity factors, such as their investment strategy and cash-flow projections, in both normal and reasonably foreseeable stressed conditions.¹³¹ We understand that those funds additionally consider factors such as asset class, market volatility, and shareholder concentration in their determinations.

As discussed above, by requiring fund liquidity classifications to assume the sale or disposition of a set stressed trade size, the proposal is intended to better prepare all funds for

¹²⁹ See rule 22e-4(b)(1)(iii).

¹³⁰ Approximately 83% of funds holding 85% of net assets do not report setting a highly liquid investment minimum on Form N-PORT.

¹³¹ For these purposes, funds are required to consider certain factors during stressed conditions only to the extent they are reasonably foreseeable during the period until the next review of the highly liquid investment minimum. See rule 22e-4(b)(1)(iii)(A)(I).

future stressed conditions.¹³² To help further prepare a fund for heightened levels of redemptions in stressed conditions, we are proposing to require the highly liquid investment minimum to be equal to or higher than the assumed stressed trade size. In setting the highly liquid investment minimum to be at least the stressed trade size, we considered data on fund flows for setting the stressed trade size as well as data reported on Form N-PORT on funds' current highly liquid investment minimums. As of March 2020, for funds that had determined a highly liquid investment minimum, the majority of those funds reported setting a highly liquid investment minimum of less than 10% of the fund's net assets. In contrast, approximately 8% of those funds reported setting a highly liquid investment minimum of more than 50% of the fund's net assets. Thus, while there is a wide divergence in highly liquid investment minimums, most of these funds have a minimum that is lower than the proposed 10% level. Given the level of weekly outflows some funds have experienced and the difficulty in predicting future stress events, we believe that a regulatory minimum of 10% for the highly liquid investment minimum would benefit investors by improving the ability of funds to meet shareholder redemptions in stressed scenarios.

In addition, the proposal's requirement for funds to both assume a stressed trade size to determine liquidity classifications and also maintain an equal or higher minimum of highly liquid investments is intended to work together to better prepare them for future stressed conditions and to reduce the risk of dilution. Not only would funds have highly liquid investments in an amount needed to meet the stressed trade size, they would also have more highly liquid assets to meet redemptions without having to sell less liquid investments at discounted prices. Funds would

¹³² See *supra* section II.A.1.a.i for discussion of the stressed trade size and of fund flow data.

continue to be required to periodically review the highly liquid investment minimum and have policies and procedures to address any shortfall in highly liquid investments below the minimum.

While the proposed minimum of 10% of a fund's net assets may be a suitable highly liquid investment minimum for most funds, certain funds may find a higher amount appropriate depending on a fund's liquidity risk factors and investment objectives. Consistent with the current rule, a fund would be required to consider a specified set of liquidity risk factors to determine whether its highly liquid investment minimum should be above 10%.¹³³ We continue to believe that the liquidity risk factors funds must consider in determining a highly liquid investment minimum under the current rule and the associated guidance the Commission provided in the Liquidity Rule Adopting Release regarding these factors are appropriate for a fund to take into account for these purposes.¹³⁴

A broad variety of investments, as well as cash, may qualify towards the highly liquid investment minimum.¹³⁵ Since approximately 83% of funds currently rely on the primarily exclusion, we would not expect this proposal to affect their strategies. We recognize, however, that imposing a highly liquid investment minimum of at least 10% would require some other funds to hold a larger amount of highly liquid assets than they currently do, and thus may affect these funds' performance or strategies.¹³⁶ For funds with strategies focused on investments that would not be considered highly liquid, they would have to determine how to constitute a

¹³³ See Liquidity Rule Adopting Release, *supra* note 8, at paragraph following n.669.

¹³⁴ See *id.*, at section III.B.2.

¹³⁵ See *id.*, at n.663 and accompanying text.

¹³⁶ As recognized above, being unprepared for higher than normal redemptions also can affect a fund's performance when such redemptions occur. See *supra* note 81. For instance, although less liquid assets generally offer a higher return, the trading costs associated with selling these assets during periods of increased redemptions may offset this risk premium, potentially resulting in a lower overall return for fund investors. See *infra* note 351 and accompanying text.

portfolio of investments that would allow the fund to meet its strategy and investing parameters while maintaining a highly liquid investment minimum of at least 10%. All funds would be subject to the same highly liquid investment minimum of at least 10%, which would minimize any competitive advantage for similar funds associated with the proposed highly liquid investment minimum requirements. We believe it is important that all funds be prepared to meet redemptions in future stressed scenarios, and that funds would be better able to do so with the proposed highly liquid investment minimum requirements.

In establishing a uniform floor for the highly liquid investment minimum, we are also proposing to remove the exclusion for funds that invest *primarily* in highly liquid investments. The Commission adopted the primarily exclusion because it believed the benefits associated with requiring such funds to determine and review a highly liquid investment minimum, or to adopt shortfall procedures, would not justify the associated burdens.¹³⁷ Since that time, however, we have observed that a fund relying on the primarily exclusion may experience significant declines in its liquidity that result in the fund holding less than 50% of its portfolio in highly liquid investments for a period of time. For example, a fund that invests significantly in a given foreign market and that generally classifies those investments as highly liquid can experience substantial declines in the amount of its highly liquid investments if, for example, there is political or economic turmoil in or an extended holiday closure of that foreign market. Funds that currently use the primarily exclusion instead of determining and maintaining a highly liquid investment minimum do not have the benefit of shortfall procedures, including board oversight, to respond to events or market conditions that may cause the fund to fall under its previously determined level of primarily held highly liquid investments. By requiring a highly liquid investment

¹³⁷ Liquidity Rule Adopting Release, *supra* note 8, at paragraph accompanying n.724.

minimum for all funds, investors would enjoy the benefit of policies and procedures that are designed to ensure not only oversight by the liquidity risk program administrator but also the fund's board.

Moreover, the burdens of complying with highly liquid investment minimum requirements for funds that currently use the primarily exclusion may be reduced because many fund complexes already have experience developing highly liquid investment minimum shortfall policies and procedures. It may be possible for funds in the same complex to leverage this experience to reduce the burdens of developing these policies and procedures for funds that previously qualified for the primarily exclusion. As liquidity risk management programs have matured, and continue to mature, many fund complexes continue to gain experience with highly liquid investment minimum shortfall policies and procedures, which may also reduce burdens. By requiring all funds to adopt a highly liquid investment minimum, we are seeking to help ensure that funds would be better prepared to handle future stressed conditions, which may occur suddenly and unexpectedly, as they would have sufficient liquid investments for managing heightened levels of redemptions.

We request comment on the proposed amendments to highly liquid investment minimum requirements.

36. Should we require all funds to determine and maintain a highly liquid investment minimum, as proposed? What effect would this proposal have on funds? For example, would some funds have to change their strategies or expect effects on performance?
37. Should some types of funds be excluded from the requirement to have a highly liquid investment minimum? If yes, which ones and why? For example, should we preserve the exclusion for funds that primarily hold highly liquid assets? Alternatively, should

- funds currently using the primarily exclusion have a higher highly liquid investment minimum requirement? Would funds using the primarily exclusion be as prepared to meet redemptions in stressed scenarios without a highly liquid investment minimum and its corresponding policies and procedures?
38. If the primarily exclusion is kept, should we define the amount of highly liquid assets a fund must maintain under this standard (*e.g.*, investing at least 51% of the fund's net assets in highly liquid assets, or a higher or lower amount)?
39. Should we establish a regulatory minimum for the amount of highly liquid investments of 10%, as proposed, or should it be set at 15% or 5% (or some other higher or lower amount)? Would establishing a regulatory minimum reduce the burdens associated with determining and periodically reviewing the fund's highly liquid investment minimum?
40. Rather than propose a regulatory minimum with factors that a fund must consider to determine whether its own highly liquid investment minimum should be higher, should we require all funds to use the same highly liquid investment minimum? Would this set a level playing field for all funds and diminish any competitive advantage for a fund with a lower highly liquid investment minimum? If so, what amount would be appropriate for a uniform highly liquid investment minimum for all funds (*e.g.*, 5%, 10%, 15%, or a higher or lower amount)?
41. Would providing more detail or guidance on the liquidity risk factors be helpful? If so, which factors?
42. Would funds that do not currently have a highly liquid investment minimum be able to leverage policies and procedures already developed for highly liquid investment

minimums, for example by other funds in the same complex, to reduce the burdens of developing these policies and procedures? If not, what costs would funds incur to adopt and implement highly liquid investment minimum policies and procedures?

b. Calculation of the Highly Liquid Investment Minimum

We are proposing amendments to rule 22e-4 that are designed to help ensure that the highly liquid investments a fund holds to meet its highly liquid investment minimum are available to support the fund's ability to meet redemptions. A key aim of the highly liquid investment minimum requirement is to decrease the likelihood that funds would be unable to meet their redemption obligations.¹³⁸ Building on existing aspects of rule 22e-4, the proposed amendments would require that, when determining the amount of assets a fund has classified as highly liquid that count toward the highly liquid investment minimum, the fund account for limitations in its ability to use some of those assets to meet redemptions.¹³⁹ Specifically, in assessing compliance with the fund's highly liquid investment minimum, the fund would be required to: (1) subtract the value of any highly liquid assets that are posted as margin or collateral in connection with any derivatives transaction that is classified as moderately liquid or illiquid; and (2) subtract any fund liabilities.¹⁴⁰

¹³⁸ See Liquidity Rule Adopting Release, *supra* note 8, at text following n.117.

¹³⁹ As the Commission explained at the time it adopted rule 22e-4, this is not meant to suggest that a fund should only, or primarily, use highly liquid investments to meet shareholder redemptions. Instead, we believe that a fund holding sufficient highly liquid assets will support the fund in meeting redemption requests in a non-dilutive manner, and assist it in readjusting its portfolio in times of market stress, heightened volatility, and managing its obligations to derivatives counterparties. See Liquidity Rule Adopting Release, *supra* note 8, at n.680 and accompanying text.

¹⁴⁰ Proposed rule 22e-4(b)(1)(iii)(B)(1); 22e-4(b)(1)(iii)(B)(2). Rule 22e-4 currently refers to a "pledge" of margin or collateral, rather than "posting." We are proposing to use the term "post" because we believe this term is more commonly used within the industry and by other regulators to refer to instances where a party provides margin or collateral to its counterparty to meet the performance of its obligation under one or more derivatives transactions as a result of a change in the value of such obligations since the trade was executed or the last time such collateral was provided (commonly referred to as variation margin) or is provided to secure potential future

i. Margin or collateral of moderately liquid and illiquid derivatives

The requirement for a fund to reduce the value of its highly liquid assets by the amount posted as margin or collateral in connection with a non-highly liquid derivatives transaction reflects that this amount of highly liquid assets is not available for the fund to use to meet redemptions.¹⁴¹ This is because, where a fund enters into a moderately liquid or illiquid derivative and posts highly liquid assets as margin or collateral, the posted collateral is highly liquid, but the fund cannot access the value of posted assets unless the fund exits the derivatives transaction. Since the fund has classified the derivative as moderately liquid or illiquid, it does not reasonably expect to be able to exit the derivatives transaction within three business days. We recognize that the fund may be able to access the specific assets posted as margin or collateral by replacing them with other assets acceptable to the fund's counterparty. But regardless of the specific assets posted, the value of collateral posted in connection with a moderately liquid or illiquid derivative would not be convertible to U.S. dollars within three business days or less.

Under the current rule, a fund is required to identify the percentage of the fund's highly liquid investments that it has posted as margin or collateral in connection with derivatives transactions that the fund has classified as less than highly liquid.¹⁴² The Commission believed

exposure following default of a counterparty (commonly referred to as initial margin). *See, e.g.*, Margin Requirements for Uncleared Swaps for Swap Dealers and Major Swap Participants, 86 FR 6850 (Jan. 25, 2021).

¹⁴¹ *See* Liquidity Rule Adopting Release, *supra* note 8, at nn.727-730 and accompanying text. This aspect of the proposed rule would only require an adjustment to the amount of a fund's highly liquid investments that are *assets*, since investments that are in a liability position are unable to be used to meet redemption requests. *See* proposed rule 22e-4(b)(1)(iii)(B)(I).

¹⁴² Rule 22e-4(b)(1)(ii)(C). In addition, funds currently also are required to exclude highly liquid assets that are posted as margin or collateral in connection with non-highly liquid derivatives transactions when determining whether the fund primarily holds highly liquid assets. Rule 22e-4(b)(1)(iii)(B).

that this approach struck an appropriate balance between providing transparency and reducing burdens on funds.¹⁴³ The Commission observed that a fund generally would not need to specifically identify particular assets that are posted as margin or collateral to cover particular derivatives transactions, but instead would calculate the percentage of highly liquid investments posted as margin or collateral for derivatives transactions classified in each of the other classification categories.¹⁴⁴ Under the rule, a fund that has posted both highly liquid investments and non-highly liquid investments as margin or collateral in connection with a non-highly liquid derivatives transaction should reduce its highly liquid investments, rather than assume that posted non-highly liquid investments would first cover the derivatives transaction, unless the fund specifically identifies non-highly liquid investments as margin or collateral in connection with a derivatives transaction.¹⁴⁵ Finally, the Commission observed that the current approach responds to commenters' concerns that linking the liquidity of specific assets posted as margin or collateral to the liquidity of a fund's derivatives transactions could understate the liquidity of those assets, since a fund may be able to readily substitute another liquid asset for the asset posted as margin or collateral.¹⁴⁶

¹⁴³ See Liquidity Rule Adopting Release, *supra* note 8, at n.476 and accompanying text.

¹⁴⁴ *Id.* at n.489 and accompanying text.

¹⁴⁵ Note 1 to proposed rule 22e-4(b)(1)(iii)(B)(I). *Cf.* Note 1 to rule 22e-4(b)(1)(ii)(C). See also Liquidity Rule Adopting Release, *supra* note 8, at nn.489-490 and accompanying text (explaining that in the absence of such an instruction, some funds might instead take the opposite approach, and assume that posted non-highly liquid investments first cover these less liquid derivatives transactions, creating inconsistencies between funds).

¹⁴⁶ We recognize that margin or collateral may be determined and paid by funds on the basis of a group of derivatives transactions, with the fund posting or receiving a net amount of margin or collateral. When a fund pays margin or collateral in connection with a group that includes derivatives transactions that are highly liquid and non-highly liquid, funds already must determine the amount of margin or collateral attributable to the non-highly liquid derivatives under the current rule. For example, a fund must perform this attribution in order to identify the percentage of the fund's highly liquid investments that it has posted as margin or collateral in connection with derivatives transactions that are not themselves highly liquid.

The proposed approach is intended to enhance investor protection while continuing to strike an appropriate balance with the potential increased burdens on funds. The proposed approach would not require funds to identify and reclassify specific assets posted as margin or collateral, but rather to reduce the value of the fund's highly liquid assets available to meet the fund's highly liquid investment minimum by the value of the assets posted as margin or collateral. We also propose to maintain, with conforming changes, the explanatory note discussed above guiding the allocation of amounts posted as margin or collateral.¹⁴⁷ By reducing the fund's highly liquid investments by the value of amounts posted as margin or collateral, the proposed approach would avoid burdens associated with tracking specific securities posted as margin or collateral and reclassifying investments as they are posted as margin or collateral and recalled. It also would not understate the liquidity of specific securities that are posted as margin or collateral because each security would continue to be classified based on its own characteristics, and instead the adjustments would only be made at the aggregate level.¹⁴⁸ Moreover, many of the operational concerns commenters raised when rule 22e-4 was proposed, which led the Commission to adopt the current approach, related to the treatment of assets segregated under the Commission's Investment Company Act Release 10666, which the Commission has since rescinded, effective August 19, 2022.¹⁴⁹ We therefore believe the proposed amendments would enhance investor protections by helping to ensure a fund's highly

¹⁴⁷ See *supra* note 145. In connection with the proposed amendments to the rule's highly liquid investment minimum provisions, we propose to re-number certain existing paragraphs and to add paragraphs to the rule. As a result, we propose to update cross-references to the highly liquid investment minimum provisions within the rule. See proposed rule 22e-4(b)(1)(iii)(C) through (E) and proposed rule 22e-4(b)(3)(iii).

¹⁴⁸ See Liquidity Rule Adopting Release, *supra* note 8, at n.491 and accompanying text.

¹⁴⁹ See Liquidity Rule Adopting Release, *supra* note 8, at nn.468-472 and accompanying text (operational concerns); Derivatives Adopting Release, *supra* note 21, at section II.L (withdrawal of Investment Company Act Release 10666).

liquid assets are in fact available to meet redemptions, while continuing to balance the value of the provision against the operational burdens to implement it.

ii. Fund liabilities

Under the proposal, a fund would also be required to reduce the amount of highly liquid assets that count toward the fund's highly liquid investment minimum by the amount of the fund's liabilities. This proposed change is intended to result in a more accurate calculation of the highly liquid investment minimum.¹⁵⁰ The proposed approach would include any liabilities, as defined in 17 CFR 210.6-04 (rule 6.04 of Regulation S-X). For example, this would include investment liabilities and amounts payable for investment advisory, management, and service fees. Reducing the amount of highly liquid assets by fund liabilities reflects that fund liabilities are generally paid in cash, meaning that highly liquid assets may need to be liquidated in order to satisfy those liabilities rather than to meet redemptions.

Based on staff outreach, it is our understanding that the proposal reflects many funds' existing practices. For example, when a fund has significant liabilities, they generally will be incurred in connection with derivatives transactions or other investments that give rise to a fund liability. Because funds are required to classify all investments, including liabilities, investments such as highly liquid derivatives in a liability position will reduce the value of the fund's highly liquid investments that are assets. To enhance investor protection by preventing assets that a fund may in the future use to pay liabilities from also being counted toward the fund's highly liquid investment minimum, and to promote consistency in how funds calculate their highly liquid

¹⁵⁰ The highly liquid investment minimum is the percentage of a fund's net assets that it invests in highly liquid assets that are eligible to count toward the minimum under the rule. *See* rule 22e-4(a)(7) (defining highly liquid investment minimum). Because this calculation uses net assets as the denominator (which reflects the amount of assets less any liabilities), we believe the numerator of eligible highly liquid assets similarly should be net of liabilities.

investment minimum, we are proposing to require that all funds reduce their highly liquid assets used to satisfy their highly liquid investment minimum by the amount of the fund's liabilities.¹⁵¹

We request comment on these aspects of the proposal, including:

43. Should we, as proposed, require a fund to reduce the amount of its highly liquid investments computed for the purposes of determining compliance with its highly liquid investment minimum by the value of any highly liquid assets that are posted as margin or collateral in connection with any derivatives transaction that is classified as moderately liquid or illiquid? Why or why not? Should we also require that amounts posted as margin or collateral in connection with derivatives transactions that are classified as highly liquid be treated in this way? Alternatively, should we exempt amounts posted as margin or collateral in connection with certain types or categories of derivatives transactions from this requirement?
44. How frequently do funds calculate the percentage of their highly liquid assets posted as margin or collateral in connection with non-highly liquid derivatives transactions today? Would the proposed requirement to calculate this value on a daily basis present new challenges?
45. Should we, as proposed, require a fund to reduce the amount of its highly liquid assets computed for the purpose of determining compliance with its highly liquid investment minimum by the value of any liabilities? Do funds already make this reduction when determining compliance with highly liquid investment minimums?

¹⁵¹ Depending on the rules of any applicable exchange and local law, a variation margin payment with respect to a derivatives transaction may be deemed to settle the fund's liability for the daily mark-to-market loss on the transaction. In that case or any other case where a fund does not have a liability in connection with a given transaction, the fund would not be required to reduce its highly liquid investments in connection with that transaction under the proposal.

Should we instead require a fund to reduce the amount of its highly liquid assets by a different amount, such as the percentage of the fund's total assets that its liabilities represent? Are there certain classes or types of fund liabilities that should not be counted? For example, should we provide an exception for liabilities associated with fund borrowings that are used to meet redemptions in order to avoid a disincentive for funds to borrow for this purpose under appropriate circumstances?

46. We propose that, for these purposes, the amount of a fund's liabilities would be computed in the same manner as a fund computes its liabilities for purposes of rule 6-04 of Regulation S-X. If we use this standard, as proposed, would the amount by which funds should reduce their highly liquid assets be clear? Are there any issues that may arise from using the standard funds use to prepare their balance sheets? Would a different definition of "liabilities" be more appropriate?

3. Limit on Illiquid Investments

Rule 22e-4 currently limits a fund's ability to acquire illiquid investments. Specifically, the rule prohibits a fund from acquiring any illiquid investment if, immediately after the acquisition, the fund would have invested more than 15% of its net assets in illiquid investments that are assets.¹⁵² We are proposing to amend the rule's limitation on illiquid investments to provide that the value of margin or collateral that a fund could only receive upon exiting an illiquid derivatives transaction would itself be treated as illiquid for these purposes.¹⁵³ As the Commission stated in 2016, the potential effects of a fund's use of derivatives are relevant to assessing, managing, and periodically reviewing a fund's liquidity risk.¹⁵⁴ The potential effects

¹⁵² See rule 22e-4(b)(1)(iv). A fund also must notify its board, and report confidentially to the Commission on Form N-RN, if its illiquid investments that are assets exceed 15% of net assets.

¹⁵³ See proposed rule 22e-4(b)(1)(iv).

¹⁵⁴ See Liquidity Rule Adopting Release, *supra* note 8, at text accompanying nn.218-223.

may be heightened when the derivatives transaction is itself illiquid, and thus may be difficult for a fund to exit quickly enough to use the associated margin or collateral to meet redemption requests, or at all. Funds' use of illiquid derivatives is subject to several limitations but, for open-end funds, the risks associated with illiquid derivatives may be heightened as a result of the funds' redeemability.¹⁵⁵

Under the proposal, for purposes of determining whether the fund is in compliance with the limitation on illiquid investments, the fund would treat as illiquid the amount of margin or collateral it has posted in connection with a derivatives transaction that is classified as an illiquid investment and that the fund would receive if it exited the derivatives transaction ("excess collateral").¹⁵⁶ This proposed requirement recognizes that, because a fund does not reasonably expect to be able to convert an illiquid derivatives investment to U.S. dollars within seven days, the fund likewise would not be able to convert to U.S. dollars the value of excess collateral posted as margin or collateral in connection with the derivatives transaction within seven days. Therefore, the proposal would require a fund to include the value of the excess collateral or margin when it determines the amount of illiquid assets it holds for purposes of the 15% limit on illiquid investments.

¹⁵⁵ The limitations on funds' issuance of senior securities, which include derivatives creating certain payment or delivery obligations, in section 18 of the Act and 17 CFR 270.18f-4 (rule 18f-4) provide certain protections to investors, and the proposed amendments are designed to complement those protections. *See* Derivatives Adopting Release, *supra* note 21 (stating that a fund's derivatives risk management program would be part of an adviser's overall management of portfolio risk and would complement—but would not replace—a fund's other risk management activities, such as a fund's liquidity risk management program adopted under rule 22e-4).

¹⁵⁶ This does not mean that the investment acting as margin or collateral would need to be classified as an illiquid investment under the rule. A fund would classify the relevant investment according to the rule's classification framework. In order to aid understanding of the reported data, we propose to require a fund to report the value of investments treated as illiquid as a result of this provision. *See* section II.E.1.d, *infra* and Item B.8.b of proposed Form N-PORT.

As with the proposed amendments related to the amounts posted as margin or collateral for non-highly liquid derivatives, a fund would not be required to specifically identify particular assets that it posted as margin or collateral to cover specific derivatives transactions. Instead, a fund would calculate the value of its assets posted as margin or collateral in connection with illiquid derivatives transactions and treat that value of assets as illiquid.¹⁵⁷

We request comment on this aspect of the proposal, including:

47. Should we, as proposed, require funds to treat as illiquid investments the value of excess collateral the fund has posted in connection with a derivatives transaction that is classified as an illiquid investment? Are there circumstances where a fund would have ready access to the value of such collateral even though the associated derivatives transaction is illiquid?
48. Are there challenges to identifying and monitoring the amount of excess collateral a fund has posted in connection with a derivatives transaction that is classified as an illiquid investment? If so, are there ways to address those challenges?
49. Are there other instances where we should treat an investment as illiquid for purposes of the rule's limit on illiquid investments that the current rule and the proposal do not contemplate?
50. Should we amend any other aspects of the illiquid investment limitations in the rule? For example, should we change the amount of the limit on illiquid investments from 15% to a lower amount, such as 10% or 5%, or a higher amount, such as 20% or 25%?

¹⁵⁷

See Item B.8.b of proposed Form N-PORT.

B. Swing Pricing

We are proposing amendments to rule 22c-1 that would require all registered open-end management investment companies to engage in swing pricing under certain conditions, except for money market funds and ETFs (the latter, “excluded funds”).¹⁵⁸ Swing pricing is a process of adjusting a fund’s current NAV when certain conditions are met, such that the transaction price effectively passes on costs stemming from shareholder inflows or outflows to the shareholders engaged in that activity. Trading activity and other changes in portfolio holdings associated with purchases and redemptions may impose costs, including trading costs and costs of depleting a fund’s liquidity. These costs, which currently are borne by the non-transacting shareholders in the fund, can dilute the interests of these shareholders. In addition, this can create incentives for shareholders to redeem quickly to avoid losses, particularly in times of market stress. If shareholder redemptions are motivated by this first-mover advantage, they can lead to increasing outflows, and as the level of outflows from a fund increases, the incentive for remaining shareholders to redeem may also increase.¹⁵⁹ By imposing the costs associated with net purchases

¹⁵⁸ See proposed rule 22c-1(b). We refer to registered open-end management investment companies other than excluded funds as “funds” or “open-end funds” when discussing the swing pricing requirement. We continue to believe it is appropriate to limit swing pricing to these funds and to not include other fund types, such as unit investment trusts or closed-end funds. See *Swing Pricing Adopting Release*, *supra* note 8, at nn.62-72 and accompanying text. With respect to excluded funds, the Commission recently proposed to require certain money market funds to engage in swing pricing under rule 2a-7, but those money market funds would not be subject to the proposed swing pricing requirement under rule 22c-1(b). See *Money Market Fund Reforms, Investment Company Act Release No. 34441* (Dec. 15, 2021) [87 FR 7248 (Feb. 8, 2022)] (“Money Market Fund Proposing Release”). ETFs, including an ETF share class of any fund that issues multiple classes of shares representing interests in the same portfolio, would not be subject to the swing pricing requirement, as discussed below. See definition of “Exchange-traded fund” in proposed rule 22c-1(d).

¹⁵⁹ Some research suggests that a first-mover advantage in open-end funds may lead to cascading anticipatory redemptions akin to traditional bank runs. This research generally models an exogenous response to negative fund returns and not trading costs. However, these results may extend to trading costs to the degree that cost based dilution may reduce subsequent fund returns, which would trigger runs in these models. See, e.g., Chen, Qi, Itay Goldstein, and Wei Jiang. 2010. “Payoff Complementarities and Financial Fragility: Evidence from Mutual Fund

or net redemptions on the shareholders who are purchasing or redeeming from the fund at that time, swing pricing can more fairly allocate costs, reduce the potential for dilution of investors who are not currently transacting in the fund's shares, and reduce any potential first-mover advantages.

1. Proposed Swing Pricing Requirement

Under the proposal, every open-end fund other than an excluded fund would be required to establish and implement swing pricing policies and procedures that adjust the fund's current NAV per share by a swing factor either if the fund has net redemptions or if it has net purchases that exceed an identified threshold.¹⁶⁰ We are proposing to require these funds to use swing pricing as an anti-dilution tool, in contrast to the optional framework that currently exists in rule 22c-1. Based on our observations from the events in March 2020, including in other jurisdictions where swing pricing is a common tool, requiring funds to use swing pricing could result in benefits for investors, as discussed below.¹⁶¹ However, at present no U.S. funds have implemented swing pricing. One reason funds have not implemented swing pricing is that they

Outflows.” *Journal of Financial Economics* 97(2): 239-262. *See also* Goldstein, Itay, Hao Jiang, and David Ng. 2017. “Investor Flows and Fragility in Corporate Bond Funds.” *Journal of Financial Economics* 126(3):592-613. *See also* Morris, Stephen, Ilhyock Shim, and Hyun Song Shin. 2017. “Redemption Risk and Cash Hoarding by Asset Managers.” *Journal of Monetary Economics* 89: 71-87. *See also* Zeng, Yao. 2017. “A Dynamic Theory of Mutual Fund Runs and Liquidity Management.” Working Paper. *See also* Ma, Yiming, Kairong Xiao, and Yao Zeng. 2021. “Mutual Fund Liquidity Transformation and Reverse Flight to Liquidity.” Working Paper. *See also* Ma, Yiming, Kairong Xiao, and Yao Zeng. 2021. “Bank Debt versus Mutual Fund Equity in Liquidity Provision.” Working Paper. *See also* Christof W. Stahel. 2022. “Strategic Complementarity Among Investors with Overlapping Portfolios”, *available at* <https://ssrn.com/abstract=3952125> (positing that investors behave similarly regardless of whether they hold assets indirectly through a fund or directly through a separately managed account and the general explanation for investor decisions to sell assets is that all market participants compete for finite market liquidity).

¹⁶⁰ *See* proposed rule 22c-1(b)(1) and definition of “Inflow swing threshold” in proposed rule 22c-1(d).

¹⁶¹ *See supra* notes 59 to 63 and accompanying text (stating that some fund managers with both U.S. and European operations indicated to the staff that swing pricing would have been a useful tool for U.S. funds to have had to combat dilution in Mar. 2020).

lack timely flow information to operationalize this anti-dilution tool. However, even if all funds had access to sufficient flow information in order to implement swing pricing, some may nonetheless choose not to implement it due to implementation costs or because investors in U.S. funds are unfamiliar with swing pricing. Therefore, funds may not be incentivized to be the first to adopt swing pricing. We believe that a regulatory requirement, rather than a permissive framework, would accrue benefits to investors that justify the implementation costs and would overcome these collective action problems that may have prevented swing pricing implementation. In addition, we continue to believe the information a fund that uses swing pricing must disclose in its prospectus will improve public understanding regarding a fund's use of swing pricing.¹⁶²

Some academics and market participants have suggested that swing pricing has provided significant benefits to long-term investors in funds in other jurisdictions, reducing dilution attributable to the transaction costs associated with shareholder activity.¹⁶³ As an example, one foreign fund industry group has suggested that funds using swing pricing exhibit superior performance returns over time compared to funds with identical investment strategies and trading

¹⁶² See Swing Pricing Adopting Release, *supra* note 11, at n.360 and accompanying text. In 2016, when the Commission adopted the optional swing pricing rule for open-end funds that are not excluded funds, it also adopted certain amendments to Form N-1A to enhance disclosure related to a fund's use of swing pricing, if applicable. Among other things, these amendments required that a fund that uses swing pricing explain the fund's use of swing pricing, including its meaning, the circumstances under which the fund will use it, the effects of swing pricing on the fund and investors, and the upper limit it has set on the swing factor. See Item 6(d) of Form N-1A. Although no funds currently use swing pricing, and therefore do not provide swing pricing disclosures to their investors, under the proposed rule all funds other than excluded funds would be required to provide these disclosures, other than the swing factor upper limit disclosure, to their investors.

¹⁶³ See, e.g., Dunhong Jin, Marcin Kacperczyk, Bige Kahraman, and Felix Suntheim, Swing Pricing and Fragility in Open-end Mutual Funds, *The Review of Financial Studies*, 35(1) (2022), available at <https://academic.oup.com/rfs/article/35/1/1/6162183> ("Jin, *et al.*"); BlackRock, Swing Pricing - Raising the Bar (Sept. 2021), available at <https://www.blackrock.com/corporate/literature/whitepaper/spotlight-swing-pricing-raising-the-bar-september-2021.pdf> ("BlackRock Swing Pricing Paper").

patterns that do not employ anti-dilution measures.¹⁶⁴ In terms of performance benefits, one study found that, for a 10% rise in monthly outflows, the associated decline in monthly returns relative to a fund's benchmark was double the amount for a fund that does not use swing pricing in comparison to a fund that uses swing pricing (a 6 basis point decline versus a 3 basis point decline, respectively).¹⁶⁵ And one investment manager reviewed the effects of swing pricing for twenty of its European funds in 2019 and found that the anti-dilution effect of swing pricing improved annual performance for these funds by around 10 to more than 60 basis points.¹⁶⁶

In addition, in March 2020, many European funds that used swing pricing lowered their swing thresholds and increased the size of their swing factors, suggesting there was a need to make more frequent and significant adjustments to the funds' NAVs at that time to avoid substantial dilution that otherwise would have occurred.¹⁶⁷ One study found that surveyed funds using swing pricing during a three week period of elevated redemptions in March 2020 recouped roughly 6 basis points of total net assets on average from redeeming investors.¹⁶⁸ The swing pricing policies that the proposed rule would require, which are similar to those used by some foreign funds, are designed to mitigate dilution arising from shareholders' purchase and redemption activity, particularly during times of stress when those dilution costs may increase. In addition to reducing dilution, some studies also suggest that swing pricing dampens redemption

¹⁶⁴ See Association of the Luxembourg Fund Industry, *Swing Pricing Brochure* (July 2022), available at https://www.alfi.lu/getattachment/3154f4f7-f150-4594-a9e3-fd7baaa31361/app_data-import-alfi-alfi-swing-pricing-brochure-2022.pdf.

¹⁶⁵ See CSSF Paper, *supra* note 61.

¹⁶⁶ See BlackRock Swing Pricing Paper, *supra* note 163.

¹⁶⁷ See notes 59 to 63 and accompanying text.

¹⁶⁸ See Claessens and Lewrick, *supra* note 61.

pressure, although some have found this effect to be minimal or nonexistent during certain periods of market stress.¹⁶⁹

Consistent with our current optional swing pricing framework, the proposed swing pricing requirement for open-end funds would apply to both net purchases and net redemptions. Although liquidity and transaction costs associated with meeting net redemptions can present heightened risks of dilution, particularly in stress periods, we continue to believe that net purchases also may cause shareholder dilution.¹⁷⁰ However, when a fund has net purchases, we propose to require swing pricing only if the amount of net purchases exceeds a specified threshold.

While the proposed swing pricing requirement generally would apply to all registered open-end funds other than excluded funds, we propose to retain the current provision that does not permit feeder funds in a master-feeder fund structure to use swing pricing.¹⁷¹ The use of swing pricing would generally be inappropriate for feeder funds, because that level of a fund structure does not actually transact in underlying portfolio assets as a result of net purchase or net redemption activity. A master fund, however, generally would be subject to the swing pricing requirement. The master fund may purchase portfolio assets to invest purchasing shareholders' cash (as transferred through the feeder fund) or sell portfolio assets to pay redemption proceeds (reducing the feeder fund's interest in the master fund). Thus, to the extent that net purchases into or redemptions from the master fund by one or more feeder funds, or any other investors in

¹⁶⁹ See CSSF Paper, *supra* note 61 (stating that funds applying swing pricing are less exposed to redemption pressure during episodes of elevated market volatility, but this dampening effect appears to vanish during episodes of severe market volatility, such as in Mar. 2020); *see also infra* notes 354 to 355 and accompanying text.

¹⁷⁰ See Swing Pricing Adopting Release, *supra* note 13, at paragraph accompanying n.166.

¹⁷¹ See proposed rule 22c-1(b)(5) and current rule 22c-1(a)(3)(iv).

the master fund, would trigger the application of swing pricing under the proposed rule, the swing factor would be applied at the level of the master fund.

Consistent with current rule 22c-1, we propose to exclude ETFs from the swing pricing requirement because ETFs often impose fees in connection with the purchase or redemption of creation units that are intended to defray operational processing and brokerage costs to prevent possible shareholder dilution.¹⁷² We also are not including ETFs within the scope of the proposed requirement because we believe that swing pricing could impede the effective functioning of an ETF's arbitrage mechanism. Additionally, notwithstanding section 18(f)(1) of the Act, a fund with a share class that is an exchange-traded fund is subject to the swing pricing requirement only with respect to any share classes that are not exchange-traded funds.¹⁷³ The proposed rule provides this exemption to allow funds with both mutual fund and ETF share classes to apply swing pricing to only their mutual fund share classes. Absent an exemption, differences between the ETF and mutual fund share classes created by swing pricing could result in a fund being deemed to issue a senior security, which would otherwise be prohibited under the Act.¹⁷⁴ Thus, a fund with an ETF share class would exclude the ETF share class's flow information when determining whether and how to apply swing pricing, and would not adjust the NAV of the ETF share class by the swing factor in computing the share price of that class.

We request comment on our proposal to require any fund that is not an excluded fund to implement swing pricing.

¹⁷² See Swing Pricing Adopting Release, *supra* note 13, at paragraph accompanying n.68.

¹⁷³ See proposed rule 22c-1(b)(6).

¹⁷⁴ Section 18(f)(1) of the Act generally makes it unlawful for any registered open-end company to issue any class of senior security. Section 18(g) defines senior security to include any stock of a class having a priority over any other class as to distribution of assets or payment of dividends.

51. As proposed, should we require any fund that is not an excluded fund to implement swing pricing? Should we provide any additional exclusions from the swing pricing requirement? For example, should funds that invest solely or primarily in highly liquid investments be permitted, but not required, to use swing pricing? If we provide an exclusion for funds that primarily invest in highly liquid investments, how should we define primarily for these purposes (*e.g.*, more than 50%, 66%, or 75%)? Should we use the same definition of highly liquid investment as the liquidity rule for these purposes? If not, how should we define highly liquid investments for purposes of an exclusion from the swing pricing requirement? If a fund primarily invested in highly liquid investments were to no longer qualify for this exclusion, when should it be required to adopt swing pricing (*e.g.*, immediately or within a certain grace period)? Alternatively, should we limit the exclusion from swing pricing to funds that do not invest more than a certain percentage of assets in illiquid investments? What maximum level of illiquid investments would be appropriate to qualify for the exclusion (*e.g.*, 1%, 2%, 5%, or 10%)? When should a fund be required to adopt swing pricing if it no longer complies with this exclusion (*e.g.*, immediately or within a certain grace period)? Should we use the same definition of illiquid investments as the liquidity rule for these purposes?
52. Should we limit the swing pricing requirement to only certain types of mutual funds and retain an optional framework for other mutual funds? If so, how should we identify by rule the types of mutual funds that would most benefit from a swing pricing requirement? As an example, would it be appropriate to require swing pricing for fixed-income mutual funds only, and to retain an optional approach for other

funds? If so, how would a fixed-income fund be defined for this purpose (*e.g.*, a mutual fund that invests at least a certain percentage in fixed-income investments, such as 50%, 75%, or 80%)? How would fixed-income investments, or any other type of portfolio investment, be defined for this purpose?

53. Should we adopt swing pricing as a default tool, with a requirement that an open-end fund, other than an excluded fund, implement swing pricing unless certain conditions are met? For example, should a fund be required to implement swing pricing unless its board of directors makes certain determinations (*e.g.*, that the fund and its shareholders are unlikely to experience significant dilution in connection with investor purchases and redemptions) and the fund maintains records of such determinations? Should a fund be required to report information about the reasons for such a determination publicly?

54. Should swing pricing remain an optional tool for all mutual funds, other than excluded funds? If so, how likely are funds to use the tool if we adopt the proposed hard close requirement or take other steps to facilitate a fund's ability to determine its daily flows before the NAV is finalized? Are certain types of funds more likely to use swing pricing if it remained an optional tool? If so, why are these funds more likely to use swing pricing than others? Are the funds that would use swing pricing if it remained optional the same funds that would benefit most from addressing dilution associated with shareholder transactions?

55. As proposed, should we retain the current provision in the rule that does not allow feeder funds in a master-feeder structure to engage in swing pricing?

56. Under the proposal, ETFs, the shares of which are listed and traded on a national securities exchange, and that are formed and operate under an exemptive order under the Investment Company Act or in reliance on rule 6c-11, would not be subject to swing pricing. Is the proposed definition of ETF appropriate? If we adopt the swing pricing requirement, would mutual funds seek to convert to an ETF structure? Are there any actions or exemptive relief that the Commission should take or grant to facilitate the conversion of mutual funds to ETFs? If ETFs were to become the predominant form of open-end fund under the Investment Company Act, would that affect the need to impose swing pricing? And likewise, if ETFs were to become the predominant form of open-end fund, would that benefit or harm investors, and if so, how and to what extent?
57. Should we provide that funds with an ETF share class must exclude the ETF share class from the application of swing pricing, as proposed? What, if any, operational challenges would exist for such funds under this approach? Should we instead require that ETF share classes be subject to the swing pricing requirement, which would result in authorized participant purchases and redemptions being effected at an adjusted NAV?
58. Should we require swing pricing for both net redemptions and net purchases, as proposed, or only for net redemptions? Do dilution and liquidity concerns exist for open-end funds in both scenarios?
59. What would be the operational challenges and costs for funds to adopt and implement swing pricing, as proposed? If funds operationalized swing pricing in March 2020, would it have been an effective tool to address dilution during that period? To what

extent were funds selling portfolio assets and incurring transaction costs to meet redemptions, or in anticipation of future redemptions, during that period?

60. Will the existing swing pricing disclosures required in Form N-1A be sufficient to help investors understand swing pricing? How familiar are U.S. investors with swing pricing? Are there any amendments we should make to the swing pricing disclosure requirements in Form N-1A that would help investors better understand the concept of swing pricing? For example, should funds be required to disclose in their registration statements the frequency they have applied, or would have applied, a swing factor over a specified period of time (*e.g.*, 1, 3, or 5 years) based on historical flow information? Should we require a fund to provide additional disclosure about swing pricing to investors outside of the registration statement? For example, should we require funds to disclose the effects of swing pricing in shareholder reports (*e.g.*, in management's discussion of fund performance)?
61. Is the experience with swing pricing in certain foreign jurisdictions relevant to an analysis of whether swing pricing would be an effective tool for U.S. funds? Beyond the operational differences identified in this release, are there differences in regulatory frameworks, markets, fund investors, or other factors between the U.S. and these other jurisdictions that might cause U.S. funds' experiences with swing pricing to differ?¹⁷⁵
62. Rule 2a-4 under the Act requires a fund, when determining its current NAV, to reflect changes in holdings of portfolio securities and changes in the number of outstanding

¹⁷⁵ See *infra* note 225 (discussing that European jurisdictions in which funds use swing pricing generally already have a hard close, which results in European funds receiving order flow much earlier than U.S. funds).

shares resulting from distributions, redemptions, and repurchases no later than the first business day following the trade date. Are there any changes we should make to rule 2a-4 to address dilution? For example, should we amend that rule to require that funds reflect these changes on trade date?

2. Amendments to Swing Threshold Framework

The current rule permits a fund to determine its own swing threshold for net purchases and net redemptions, based on a consideration of certain factors the rule identifies.¹⁷⁶ We are proposing to specify when a fund must use swing pricing to adjust its current NAV, which would differ depending on whether the fund has any net redemptions or has net purchases above a specified threshold on a given day.

When the Commission adopted the swing pricing provisions in 2016, it determined to require a swing threshold and not to prescribe a swing threshold floor applicable to all funds because it believed that different levels of net purchases and net redemptions would create different risks of dilution for funds with different strategies, shareholder bases, and other liquidity-related characteristics.¹⁷⁷ At that time, the Commission believed consideration of the swing threshold factors—which took into account these different liquidity-related characteristics—would lead a fund to set a threshold at a level that would trigger the fund’s investment adviser to trade portfolio assets in the near term to a degree or of a type that may generate material liquidity or transaction costs for the fund. We further believed that after considering these

¹⁷⁶ The factors a fund currently must consider in determining the size of its swing threshold are: (1) the size, frequency, and volatility of historical net purchases or net redemptions of fund shares during normal and stressed periods; (2) the fund’s investment strategy and the liquidity of the fund’s portfolio investments; (3) the fund’s holdings of cash and cash equivalents, and borrowing arrangements and other funding sources; and (4) the costs associated with transactions in the markets in which the fund invests. *See* rule 22c-1(a)(3)(i)(B).

¹⁷⁷ For considerations relating to the swing threshold in the current rule, see generally Swing Pricing Adopting Release, *supra* note 11, at nn.150-155 and accompanying text.

factors, a fund would be unable to set the swing threshold at zero. Thus the current rule does not contemplate full swing pricing, but assessment of the swing threshold factors could lead certain funds to set low swing thresholds approximating full swing pricing.

In the intervening period, however, we have observed that the size of funds' swing thresholds in certain other jurisdictions has depended more on uniform decisions by the manager of a fund complex than on an individual fund's liquidity-related circumstances.¹⁷⁸ In addition, we considered our experience with the liquidity rule discussed above, where currently allowed discretion has led to favorable liquidity assessments that tend to over-estimate funds' liquidity during stressed market conditions and that fail to change dynamically during stressed market conditions. A similar experience translated to swing pricing could cause high swing thresholds set during calm market conditions that do not adjust downward as may be appropriate in some cases during stressed market conditions. As a result of these experiences, we are concerned that retaining the principles-based framework for setting swing thresholds under the current rule would not result in the level of fund-specific tailoring the Commission contemplated and, instead, would simply result in undue variation among similarly situated funds and, in some cases, swing thresholds high enough that swing pricing does not adequately address dilution.

In the case of net redemptions, the proposed rule would require a fund to apply swing pricing always (*i.e.*, without a swing threshold).¹⁷⁹ Because every net redemption can potentially involve trading or borrowing costs that dilute the value of the fund, as well as depletion of a fund's liquidity for remaining shareholders that increases the likelihood of future dilution, the

¹⁷⁸ See Bank of England Survey, *supra* note 60 ("In most cases we observed that funds with different primary strategies and assets, but managed by the same fund manager, used both the same thresholds for applying swing pricing, and the same calculation of the standardised swing factor. This appears to indicate that managers may not be fully considering specific factors such as in the investor base or asset-specific factors for individual funds.").

¹⁷⁹ See proposed rule 22c-1(b)(1)(i).

proposal, in setting a uniform approach to triggering swing pricing in all circumstances, would require a fund to apply a swing factor regardless of the size of its net redemptions, which is intended to fairly allocate costs and reduce dilution. Applying swing pricing regardless of the size of net redemptions may help reduce any potential first-mover advantage associating with redeeming before other investors. However, the types of costs the swing factor must take into account would depend on the size of net redemptions. Specifically, the proposed rule would require a fund to include market impacts in its swing factor only if net redemptions exceed 1% of the fund's net assets (the "market impact threshold").¹⁸⁰ Market impact costs are the costs incurred when the price of a security changes as a result of the effort to purchase or sell the security.¹⁸¹

We understand that there may be operational challenges and complexities to estimating market impact costs. Recognizing these difficulties, and that market impacts are likely to be minimal or even negligible when redemptions are not significant, the proposal sets a market impact threshold below which estimates of market impact would not be necessary. Based on our analysis of historical daily flow data over a period of more than 10 years for equity and fixed-income mutual funds, a given fund had daily outflows of more than 1% on slightly more than 1% of trading days.¹⁸² We propose a 1% market impact threshold to balance the operational challenges of frequently estimating market impacts with the goal of reducing dilution, particularly in times of stress (*i.e.*, when a fund is more likely to experience redemptions of more

¹⁸⁰ See proposed rule 22c-1(b)(2)(i)(C) and definition of "Market impact threshold" in proposed rule 22c-1(d).

¹⁸¹ Market impact costs reflect price concessions (amounts added to the purchase price or subtracted from the selling price) that are required to find the opposite side of the trade and complete the transaction.

¹⁸² Based on Morningstar data for the period of Jan. 2009 through Dec. 2021.

than 1% of net assets and market impacts are likely to be larger). We recognize that smaller funds may be less likely than larger ones to have market impacts at a 1% threshold, because they generally would be selling smaller investment sizes than larger funds would at that threshold. However, there are circumstances in which smaller funds may also experience market impact costs at the 1% threshold; for example, if the fund holds substantial illiquid investments or during periods of market stress. Therefore, the proposal requires all funds to assess whether market impact costs would occur when net redemptions exceed a 1% threshold and, if they do occur, to include such costs in the swing factor. A uniform market impact threshold for all funds would provide a consistent and objective threshold for all funds to consider market impacts.

When a fund has net purchases, we propose to only require swing pricing—including market impact—if the amount of net purchases exceeds 2% of the fund’s net assets (the “inflow swing threshold”).¹⁸³ We recognize that smaller levels of net purchases are less likely to result in dilution than net redemptions. This is because funds, while required to pay redemptions within seven days, are not required to invest cash inflows within a specified period. Therefore, if bid-ask spreads have widened on a day that the fund receives the cash inflows, the fund manager generally can wait to invest the cash to reduce transaction costs.¹⁸⁴ In addition, while investing the cash inflows could decrease the liquidity of the fund, particularly if the cash is used to purchase illiquid investments, the liquidity rule curbs this possibility by limiting the amount of illiquid investments a fund can acquire.

¹⁸³ See definition of “Inflow swing threshold” in proposed rule 22c-1(d).

¹⁸⁴ Regardless of bid-ask spreads, a fund manager also may choose to use cash inflows to invest in derivatives to obtain market exposure quickly while strategizing where to invest that cash on a longer-term basis. Funds may be incentivized to invest promptly in an effort to avoid reduced returns and tracking error.

For these reasons, the proposal sets a swing threshold for net purchases but not one for net redemptions. We also recognize that low levels of net purchases are less likely to result in dilution, but that higher levels of net purchases are more likely to result in dilution absent appropriate tools for mitigating it. Based on our analysis of historical daily flow data over a period of more than 10 years for equity and fixed-income mutual funds, a given fund had daily inflows of approximately 2% on about 1% of trading days.¹⁸⁵ Therefore, similar to the proposed market impact threshold, we propose an inflow swing threshold of 2% to balance the operational challenges of frequently implementing swing factors for net purchases with the goal of reducing dilution, particularly when a fund has significant inflows.

Although the proposed rule would identify a market impact threshold that would apply to net redemptions and an inflow swing threshold for net purchases, the rule would permit the fund's swing pricing administrator to use smaller thresholds than the rule identifies in either of these instances as the administrator determines is appropriate to mitigate dilution.¹⁸⁶ Flexibility to use a smaller threshold is designed to recognize that there may be circumstances in which a smaller threshold than the rule requires would help reduce dilution, such as when the fund holds a larger amount of investments that are less liquid, in times of market stress, or in the case of a large fund (*i.e.*, because a large fund is selling or purchasing a larger amount of instruments than a small fund at a 1% market impact threshold for net redemptions or a 2% inflow swing

¹⁸⁵ Based on Morningstar data for the period of Jan. 2009 through Dec. 2021.

¹⁸⁶ See definitions of "Inflow swing threshold" and "Market impact threshold" in proposed rule 22c-1(d). Under the proposed rule, the term "swing pricing administrator" has the same meaning as the term "person(s) responsible for administering swing pricing" under the current rule. See proposed rule 22c-1(d); current rule 22c-1(a)(3)(ii)(C). The swing pricing administrator is the fund's investment adviser, officer, or officers responsible for administering the fund's swing pricing policies and procedures. The proposed rule specifies that the swing pricing administrator may consist of a group of persons. As with the current rule, the fund's board of directors must designate this person or group of persons.

threshold for net purchases). For example, a fund might elect to implement swing pricing if the fund experiences net purchases of any amount.

We understand that in having the option to set a lower market impact threshold for net redemptions and inflow swing threshold for net purchases, the swing pricing administrator would have discretion that it potentially could use to enhance fund performance in a misleading manner by adjusting the fund's NAV more frequently or more substantially than is needed to address dilution. To help address this risk, under the proposal the administrator would be required to include in its written reports to the board the information and data supporting its determination to use lower thresholds.¹⁸⁷ Additionally, consistent with the current rule, a fund's portfolio manager could not be designated as the swing pricing administrator.¹⁸⁸

We request comment on our proposed amendments to the swing pricing threshold.

63. Should we adopt a framework that, in the case of net redemptions, requires a fund to adjust its NAV by a swing factor only when those net redemptions exceed an identified threshold (*i.e.*, as we propose for net purchases)? If so, should that threshold be the same size as the 1% market impact threshold, or a lower or higher amount (*e.g.*, 0.5%, 1.5%, or 2%)?

64. Should we require the application of the swing factor regardless of the size of net purchases or net redemptions, or only when they exceed a certain percentage of a fund's net assets? Should funds have discretion to set their own thresholds? If so,

¹⁸⁷ See proposed rule 22c-1(b)(3)(iii)(C). Consistent with the current rule, a fund would be required to maintain a written copy of the report provided to the board for six years, the first two years in an easily accessible place. See rule 22c-1(a)(3)(iii); proposed rule 22c-1(b)(4).

¹⁸⁸ See rule 22c-1(a)(3)(ii)(C) and proposed rule 22c-1(b)(3)(ii). See also Swing Pricing Adopting Release, *supra* note 11, at n.269 and accompanying text.

should that discretion be based on the swing threshold factors currently in the rule or should we adjust those factors?

65. Should we include a market impact threshold for net redemptions, as proposed? Is 1% an appropriate level for the market impact threshold? Should it be a lower or higher amount (*e.g.*, 0.5%, 1.5%, or 2%)? Is there different data or analysis that we should take into account to determine the market impact threshold?
66. Should we include an inflow swing threshold for net purchases, as proposed? Is 2% an appropriate level for the inflow swing threshold? Should it be a lower or higher amount (*e.g.*, 0.5%, 1%, 1.5%, or 3%)? Is there different data or analysis that we should take into account to determine the inflow swing threshold?
67. Would the proposed inflow swing threshold, or a requirement to use swing pricing in the case of net purchases more generally, cause a fund to limit the total amount an investor can invest in the fund? If so, what effects would this have on investors?
68. Should we permit the swing pricing administrator to use discretion to establish a smaller market impact threshold for net redemptions or a smaller inflow swing threshold for net purchases if the administrator determines a smaller threshold is appropriate to mitigate dilution, as proposed? Should we prescribe the circumstances in which a smaller threshold would be permitted, the timing of such a determination by the swing pricing administrator (*e.g.*, if a swing pricing administrator must formally establish a smaller threshold that will remain in place for a period of time), disclosure of such a determination to the fund's investors, and recordkeeping requirements in support of the determination? Should we require the fund's board, instead of the swing pricing administrator, to approve use of a smaller threshold?

Should we permit the swing pricing administrator to exclude certain types of costs from the swing factor if it uses a lower-than-required threshold? For example, should a swing pricing administrator be permitted to exclude market impact estimates from the swing factor if it uses an inflow swing threshold that is lower than 2%, and instead only include market impact estimates when inflows also exceed 2%?

69. Should the swing pricing administrator or the board have flexibility to establish larger thresholds than proposed (*i.e.*, to apply a swing factor only when net redemptions exceed a specified percentage, to include market impacts in the swing factor when net redemptions are an identified amount that is greater than 1%, or to apply a swing factor only when net purchases exceed an identified amount that is greater than 2%)?

If so, what are the circumstances in which a fund board or the swing pricing administrator should have flexibility to use larger thresholds that the proposed rule identifies?

70. Should we allow certain types of funds to use different thresholds than those the proposed rule identifies? For example, should we permit or require smaller funds to use larger thresholds? If so, how should we identify smaller funds for these purposes? Should the rule identify larger thresholds for smaller funds, or should smaller funds have flexibility to determine their own thresholds? As another example, should we permit or require funds that hold significant amounts of highly liquid investments to use larger thresholds? If so, how should we identify funds that hold significant amounts of highly liquid investments for these purposes? Should the rule identify larger thresholds for these funds, or should they have flexibility to determine their own thresholds?

3. Determining Flows

Consistent with the current rule, the swing pricing administrator must review investor flow information to determine if the fund has net purchases or net redemptions and the amount of net purchases or net redemptions.¹⁸⁹ For these purposes, investor flow information means information about the fund investors' daily purchase and redemption activity. Investor flow information may consist of individual, aggregated, or netted eligible orders, and excludes any purchases or redemptions that are made in kind and not in cash.¹⁹⁰ Currently it would be difficult to determine investor flow information on a given day because some intermediaries do not provide order flow until after the fund has finalized its NAV. In recognition of these challenges, the current rule permits a swing pricing administrator to make swing pricing determinations based on receipt of sufficient investor flow information to allow the fund to estimate reasonably whether it has crossed a swing threshold with high confidence.¹⁹¹ While the hard close provision in the proposed rule is intended to result in funds generally having flow information in a timely manner, and therefore greatly reduce the need for estimation, we recognize some estimation may still be required. The proposed rule would, therefore, continue to permit the swing pricing administrator to make swing pricing determinations based on reasonable, high confidence estimates of investor flows.¹⁹²

¹⁸⁹ See rule 22c-1(a)(3)(i)(A) and proposed rule 22c-1(b)(1)(i).

¹⁹⁰ See definition of "Investor flow information" in proposed rule 22c-1(d). See also *infra* section II.C.2 (discussing the proposed definition of "eligible order" for purposes of the hard close requirement).

¹⁹¹ See rule 22c-1(a)(3)(i)(A).

¹⁹² Under the current rule, the swing pricing administrator is permitted to make swing threshold determinations based on receipt of sufficient flow information "to allow the fund to reasonably estimate whether it has crossed the swing threshold(s) with high confidence." See rule 22c-1(a)(3)(i)(A).

Under our proposal, the swing pricing administrator would be required to review investor flow information on a daily basis to determine: (1) if the fund experiences net purchases or net redemptions; and (2) the amount of net purchases or net redemptions. We propose to permit the swing pricing administrator to make these determinations based on “reasonable, high confidence estimates.” While there would be less of a need to estimate flows under the proposed hard close requirement, we understand that a swing pricing administrator still would need to use estimates in some cases. For instance, if an investor submits an exchange order to redeem its shares from Fund A and simultaneously invest the proceeds in Fund B, the swing pricing administrator for Fund B may need to estimate the incoming cash by multiplying the number of shares redeemed from Fund A by an estimate of Fund A’s NAV, which may be the prior day’s transaction price. In this situation, we recognize it will not be possible for the swing pricing administrator to determine the exact size of the related flow information until a later time. Therefore, we propose to permit the use of reasonable, high confidence estimates to make swing pricing determinations. Furthermore, some funds groups with both U.S. and European operations may already have experience with this type of estimation, because European funds that have adopted swing pricing generally use the prior day’s price to estimate today’s flows.

We request comment on our proposal requirements related to shareholder flow information.

71. Should we permit a swing pricing administrator to make reasonable, high confidence estimates of investor flows, as proposed? Are there operational complexities to this approach? Is the rule’s reference to reasonable, high confidence estimates of investor flows sufficiently clear? If not, how should we revise the rule to provide greater clarity about permitted estimates?

72. As proposed, should we remove references to receipt of sufficient investor flow information in the rule in light of the proposed hard close requirement?
73. Is the proposed definition of “investor flow information” clear and understandable? Should the rule continue to exclude any purchases or redemptions that are made in kind and not in cash, as proposed?
74. Should we provide additional guidance about circumstances in which a swing pricing administrator may need to use estimates in connection with arriving at a reasonable, high confidence estimate of the fund’s investor flow information and how the administrator should arrive at those estimates? Are there other types of investor orders, beyond orders that identify the number of shares to be purchased or sold and exchanges, that would still require estimation under a hard close approach? Should funds be able to use the prior day’s transaction price for purposes of estimating flows where the amount of such flows are dependent on having a transaction price? Should funds be permitted to make adjustments to the prior day’s price for these purposes (*e.g.*, to reflect market movements relative to fund benchmarks that occurred after the prior day’s NAV was struck)? If so, under what circumstances should we permit such adjustments?
75. If we adopt the proposed hard close requirement, would there be scenarios in which a swing pricing administrator would be unable to arrive at a reasonable, high confidence estimate of investor flows? If so, when would this occur? How should a fund comply with the swing pricing requirement if the administrator is unable to arrive at a reasonable, high confidence estimate of investor flows on a given day?

76. Would the use of reasonable, high confidence estimates of investor flows subject swing pricing determinations to abuse? Should the use of estimates be limited to specific circumstances? Are there other ways for the swing pricing administrator to make swing pricing determinations without the use of reasonable, high confidence estimates of investor flows?

77. Do fund groups with both U.S. and European operations already have experience with investor flow estimation? If so, would experience with European operations help these fund groups use estimates in their U.S. funds? What changes to the proposed rule, if any, would help fund groups without prior experience with investor flow estimation?

4. Swing Factors

In determining the swing factor, the proposed rule would require a fund's swing pricing administrator to make good faith estimates, supported by data, of the costs the fund would incur if it purchased or sold a *pro rata* amount of each investment in its portfolio to satisfy the amount of net purchases or net redemptions (*i.e.*, a vertical slice).¹⁹³ The current swing pricing framework requires that the swing factor take into account only the near-term costs expected to be incurred by the fund as a result of net purchases or net redemptions that occur on the day the swing factor is used, as well as borrowing-related costs associated with satisfying redemptions.¹⁹⁴ Under our proposal, a fund would be required to assume it would purchase or sell a *pro rata* amount of each investment in its portfolio, rather than consider the specific investments it would purchase to invest the proceeds from subscriptions or sell to meet redemptions.¹⁹⁵ Because a fund

¹⁹³ See proposed rule 22c-1(b)(2).

¹⁹⁴ These near-term costs include spread costs, transaction fees and charges arising from asset purchases or asset sales resulting from those purchases or redemptions. See rule 22c-1(a)(3)(i)(C).

¹⁹⁵ See proposed rule 22c-1(b)(2).

would need to calculate its costs based on the purchase or sale of a vertical slice of its portfolio, rather than selecting specific investments or borrowing to meet redemptions, we have proposed to remove borrowing costs from the swing factor calculation. We recognize that there are many ways a fund could pay redemptions or invest proceeds from investor purchases, and a fund may not necessarily sell or purchase a vertical slice of its portfolio holdings to do so. However, we believe analyzing costs based on an assumed purchase or sale of a vertical slice of the fund's portfolio would more fairly reflect the costs imposed by redeeming or purchasing investors than an approach that focuses solely on the costs associated with the instruments that the fund expects to buy or sell (or expected borrowing costs, in the case of redemptions). For example, under the current rule, if a fund sells only highly liquid investments to meet redemptions, the swing factor would typically reflect relatively low transaction costs of selling those investments and any near-term rebalancing, and generally would not account for the effect of leaving remaining investors with a less liquid portfolio or potential longer-term rebalancing costs. In contrast, the proposed requirement that a fund calculate costs to purchase or sell a vertical slice of the portfolio is designed to recognize the potential longer-term costs of reducing the fund's liquidity under these circumstances.

In addition, using a vertical slice is more objective than the current approach, because the swing factor administrator does not need to anticipate what actions the fund will take to pay redemptions or invest proceeds from investor purchases, which may vary from day to day. This should make the swing factor easier to administer. Further, under the proposed swing pricing framework and consistent with the current rule, a swing factor could generally be determined on a periodic basis, as long as developments that should affect the swing pricing administrator's good faith estimates of spreads, market impact, and other transaction costs, such as significant

market developments, prompt a quicker reevaluation.¹⁹⁶ A quicker reevaluation would be required to comply with the proposed amendments where developments would otherwise prevent the prior swing factor from reflecting the cost the fund would incur if it purchased or sold a *pro rata* amount of each portfolio investment under current market conditions. Accordingly, we believe a fund would have the incentive to reevaluate promptly its swing factor in these circumstances because having an accurate and fair transaction price is crucially important to investors. We believe that funds would address the frequency of swing factor determinations when designing their policies and procedures relating to swing pricing.

Calculating the swing factor would differ depending on whether the fund is experiencing net purchases or net redemptions. In the case of net redemptions, the good faith estimates must include, for selling a *pro rata* amount of each investment in the fund's portfolio to satisfy the amount of net redemptions: (1) spread costs; (2) brokerage commissions, custody fees, and any other charges, fees, and taxes associated with portfolio investment sales; and (3) if the amount of the fund's net redemptions exceeds the market impact threshold, the market impact.¹⁹⁷ In the case of net purchases, swing pricing would only be applied if the amount of the fund's net purchases exceeds 2%.¹⁹⁸ In such cases the good faith estimates must include, for purchasing a *pro rata* amount of each investment in the fund's portfolio to invest the proceeds from the net purchases: (1) spread costs; (2) brokerage commissions, custody fees, and any other charges, fees, and taxes associated with portfolio investment purchases; and (3) the market impact.¹⁹⁹ We believe these components of the swing factor for both net redemptions and net purchases, taken together,

¹⁹⁶ See Swing Pricing Adopting Release, *supra* note 11, at paragraph accompanying n.268.

¹⁹⁷ See proposed rule 22c-1(b)(2)(i).

¹⁹⁸ See proposed rule 22c-1(b)(2)(ii).

¹⁹⁹ *Id.*

approximate the aggregate costs associated with dilution. We also believe that providing a standard for calculating swing factors, including the vertical slice approach and the identification of the categories of costs funds must include, would help avoid the variability in how funds calculate swing factors, as observed in some other jurisdictions where funds use swing pricing.²⁰⁰

We understand that in calculating the swing factor, fund managers may have incentives to over-estimate costs in order to improve fund performance. However, doing so would be misleading. To help address this risk, under the proposal funds would be required to report their swing factor adjustments publicly on Form N-PORT. We believe this public transparency should reduce a fund's incentive to over-estimate costs. Additionally, a fund's portfolio manager, who arguably might have the strongest incentives to over-estimate costs, could not be designated as the swing pricing administrator.²⁰¹

The method for calculating a fund's spread costs would differ depending on how the fund values its portfolio holdings. We understand that funds may value portfolio holdings at the bid price or the mid-market price when striking their NAVs.²⁰² If a fund values its portfolio holdings

²⁰⁰ See Bank of England Survey, *supra* note 60. This report states that in calculating swing factors, some surveyed UK funds only considered bid-ask spreads, some other funds also considered explicit transaction costs such as commissions, and a few funds considered market impact as well. Moreover, in reviewing the size of swing factors applied in Mar. 2020, the report found that corporate bond funds with net outflows applied swing factors ranging between -5% and +0.5% from Mar. 10 to 23. The report states that the scale of variation suggests that fund-specific experiences are not the sole explanation for differences in swing factors and that different approaches fund managers took in applying swing pricing also contributed to these variations.

²⁰¹ See proposed rule 22c-1(b)(3)(ii).

²⁰² See FASB ASC 820-10-35-36C (providing that if an asset measured at fair value has a bid price and an ask price, the price within the bid-ask spread that is most representative of fair value in the circumstance shall be used to measure fair value, and that the use of bid prices for asset positions is permitted but not required for these purposes); FASB ASC 820-10-35-36D (stating that use of mid-market pricing as a practical expedient for fair value measurements within a bid-ask spread is not precluded). Since a seller generally asks for a higher price for a security than a buyer bids for that security, the mid-market price is incrementally higher than the bid price for a security, but lower than its ask price.

at the bid price, it would not need to include spread costs in its swing factor when the fund has net redemptions. In contrast, if the fund has net purchases exceeding 2%, the fund would need to include spread costs, which would reflect the full bid-ask spread. For a fund that uses mid-market pricing, it would need to include spread costs in its swing factor any time it applies swing pricing. When a fund using mid-market pricing has net redemptions, or net purchases exceeding 2%, the spread cost component of its swing factor would reflect half of the bid-ask spread.

The proposal would require a fund to include market impact in its swing factor only if the amount of net redemptions exceeds the market impact threshold, and in all cases where the amount of net purchases exceeds the inflow swing threshold. The market impact component of the swing factor would reflect good faith estimates of the market impact of selling (in the case of net redemptions) or purchasing (in the case of net purchases) a vertical slice of a fund's portfolio to satisfy the amount of net redemptions or net purchases. The fund would estimate market impacts for each investment in its portfolio by first estimating the market impact factor. This factor is the percentage change in the value of the investment if it were purchased or sold, per dollar of the amount of the investment that would be purchased or sold. Then, the fund would multiply the market impact factor by the dollar amount of the investment that would be purchased or sold if the fund purchased or sold a pro rata amount of each investment in its portfolio to meet the net redemptions or net purchases.²⁰³

We understand that it may be difficult to produce timely, good faith estimates of the market impact of purchasing or selling a pro rata portion of each instrument the fund holds. Recognizing these difficulties, and because some securities held by mutual funds may have similar characteristics and would likely incur similar costs if purchased or sold, the proposed rule

²⁰³ See proposed rule 22c-1(b)(2)(iii).

would permit the swing pricing administrator to estimate costs and market impact factors for each type of investment with the same or substantially similar characteristics and apply those estimates to all investments of that type rather than analyze each investment separately.²⁰⁴

The existing swing pricing framework currently in rule 22c-1 does not permit a fund to include market impact costs relating to transacting in the fund's investments in the swing factor calculation. At the time of the rule's adoption, the Commission stated that it may be difficult for many funds to estimate readily market impact costs, and that subjective estimates of market impact costs could grant excessive discretion in a fund's determination of a swing factor.²⁰⁵ We understand that it may continue to be difficult to determine market impact costs with precision, while a fund would be able to determine other relevant factors more precisely.²⁰⁶ However, we believe the experiences of European funds that employed swing pricing through March 2020 have highlighted the importance of considering market impact costs, given the stressed nature of markets at that time, the level of those funds' redemptions, and the size of those funds' swing factors. We understand that only some European funds consider market impact costs when determining their swing factors.²⁰⁷ A recent survey conducted by the Association of the Luxembourg Fund Industry ("ALFI"), however, observed an increase in asset managers

²⁰⁴ See proposed rule 22(c)-1(b)(iv).

²⁰⁵ See Swing Pricing Adopting Release, *supra* note 11, at paragraph accompanying n.240.

²⁰⁶ Methodologies used to estimate market impact are often created by liquidity measurement vendors. These vendors typically create a model to gauge what size of trade will have a market impact on a security (using various factors such as bid-offer spreads, issue sizes, recent daily average volumes, and recent trade sizes), back-test the model to check its accuracy, and then adjust the weights of the various factors used in the model accordingly.

²⁰⁷ See Bank of England Survey, *supra* note 60 (stating that most surveyed fund managers did not factor market impact explicitly into their swing factors, and few had models in place to estimate spreads when needed).

including market impact in their swing factors, with 35% of surveyed asset managers including this component in the factor calculation.²⁰⁸

To address the concern that market impact estimation may be difficult, and that subjective estimates of market impact costs could grant excessive discretion in the determination of a swing factor, we are providing additional parameters for estimating market impact to make the calculation more objective as discussed above. These prescriptive requirements should help to limit subjectivity, and recordkeeping requirements would require funds to document their market impact factors, facilitating our staff's review and oversight of mutual fund swing pricing.²⁰⁹

The current swing pricing framework requires the establishment of an upper limit on the swing factor used.²¹⁰ The Commission included a 2% upper limit in the current rule to make sure that swing pricing would not operate as a "de facto gate."²¹¹ We are not including an upper limit on the swing factor under our proposed framework. We propose to remove the requirement for the board to review and approve the fund's swing threshold and the upper limit on the swing factor(s) used, as well as any charges on these items, to conform to our proposed swing pricing

²⁰⁸ See ALFI Swing Pricing Survey 2022 (July 2022), available at https://www.alfi.lu/getattachment/8417bf51-4871-41da-a892-f4670ed63265/app_data-import-alfi-alfi-swing-pricing-survey-2022.pdf.

²⁰⁹ See rule 31a-2(a)(2) (requiring funds to preserve for a period of not less than six years all schedules evidencing and supporting each computation of an adjustment to the fund's NAV based on swing pricing policies and procedures). A fund's records under the proposed amendments should generally include the fund's unswung NAV, the level of net purchases or net redemptions that the fund encountered (and estimated) that triggered the application of swing pricing, the swing factor that was used to adjust the fund's NAV, and relevant data supporting the calculation of the swing factor, including the components of the swing factor such as market impact.

²¹⁰ See rule 22c-1(a)(3)(i)(C). Additionally, a fund's board of directors, including a majority of directors who are not interested persons of the fund must approve the fund's swing threshold(s) and the upper limit on the swing factor(s) used, and any changes to the swing threshold(s) or the upper limit on the swing factor(s) used. See rule 22c-1(a)(3)(ii).

²¹¹ See Swing Pricing Adopting Release, *supra* note 13, at text accompanying nn.253-254.

framework.²¹² The more specific parameters in this proposal for determining a fund's swing factor are intended to sufficiently mitigate the concerns that led to an upper limit in the existing swing pricing regime. In addition, although the current rule does not prescribe which investments a fund would purchase or sell, the current upper limit may provide an incentive for funds to sell their most liquid assets first, which may increase the risk of dilution when the fund later rebalances its portfolio. Furthermore, we understand that in certain other jurisdictions, several funds experienced costs and dilution that led to swing factors above 2% in March 2020.²¹³ Those cases suggest that the swing factors helped mitigate dilution and did not constitute a *de facto* gate, given that they reflected market conditions at that time. We recognize that liquidity costs could vary widely across funds and under different market conditions, and we do not wish to limit the extent to which swing pricing could mitigate dilution. Finally, the policies and procedures for determining the swing factor would be required to be approved by the fund's board, which has an obligation to act in the best interests of the fund.

Additionally, Form N-1A currently requires funds that use swing pricing to disclose a fund's swing factor upper limit.²¹⁴ Because we propose to remove the swing factor upper limit in the rule, we also propose to remove the requirement to provide an upper limit on the swing factor from Item 6(d) of Form N-1A.²¹⁵

We request comment on our proposed calculation of a fund's swing factor.

²¹² See proposed rule 22c-1(b)(3). We also propose to modify the board's review of a fund's swing pricing policies and procedures to include "their effectiveness at mitigating dilution" rather than "the impact on mitigating dilution." See proposed rule 22c-1(b)(3)(iii)(A).

²¹³ See, e.g., Commission de Surveillance du Secteur Financier, Swing Pricing Mechanism – FAQ, available at <https://www.cssf.lu/en/Document/cssf-faq-swing-pricing-mechanism/> (providing guidance for increasing the swing factor above the maximum level identified in a fund's prospectus under certain circumstances, and noting that typical maximum swing factors observed in fund prospectuses are between 1% and 3%).

²¹⁴ Item 6(d) of Form N-1A.

²¹⁵ See Item 6(d) of proposed Form N-1A.

78. Does our proposed requirement that a fund calculate the swing factor by assuming it would sell or purchase a pro rata amount of each investment in its portfolio properly account for liquidity costs? Are there other considerations related to liquidity costs that the swing pricing framework should take into account, such as shifts in the fund's liquidity management or other repositioning of the fund's portfolio?
79. Should funds calculate the swing factor by estimating the costs of purchasing or selling only the investments the fund plans to buy or sell to satisfy shareholder purchases or redemptions (consistent with the current rule), rather than calculating the swing factor based on the costs the fund would incur if it sold a pro rata amount of each investment in its portfolio (as proposed)? Which approach would more fairly reflect the costs imposed by redeeming or purchasing investors?
80. Should we permit a fund not to use the vertical slice assumption when doing so would require the fund to assume that it is purchasing or selling an amount of a given instrument that would not be permissible under other rules (*e.g.*, if it would result in an assumption that a fund would purchase an amount of illiquid investments that exceeds 15%)? If so, how should we modify the assumption for these purposes? Should we require a vertical slice assumption in all cases for administrative ease and consistency in calculations?
81. As proposed, should the swing factor calculation take into account spread costs; brokerage commissions, custody fees, and any other charges, fees, and taxes associated with portfolio investment sales; and the market impact under certain circumstances? Should we remove any of these types of costs from the calculation? Are there other types of costs we should include?

82. Should the swing factor calculation take into account borrowing costs like under the current rule? Should the proposed rule only include borrowing costs for certain assets, such as illiquid assets? Should illiquid investments be defined for this purpose using the same definition as in rule 22e-4?
83. Should the way in which a fund calculates spread costs depend on whether it uses midpoint or bid pricing when valuing its holdings? Should we allow a fund that uses bid pricing not to apply a swing factor when it has net redemptions unless the amount of net redemptions exceeds a threshold (*e.g.*, the market impact threshold)? Should we require all funds to use bid pricing, either instead of or in combination with a swing pricing requirement? Would use of bid pricing effectively address dilution, particularly when net redemptions are small? Instead of requiring swing pricing as proposed, should we require a fund to use bid pricing to compute its share price or otherwise adjust its price to reflect spread costs on days the fund estimates that it has net redemptions? If so, should the fund also use ask pricing on days the fund estimates that it has net purchases? Should we require a fund to use bid pricing to compute its share price on all days, regardless of whether the fund has net redemptions or purchases?
84. Should we require the swing factor to include market impact under certain circumstances, as proposed? Do some or all funds already estimate market impact factors, or perform similar analyses, to inform trading decisions or liquidity rule classifications? If so, would these funds' prior experience smooth the transition to making a good faith estimate of the market impact factor under the proposal? Would the proposed amendments to the liquidity rule further enhance funds' ability to

estimate market impacts? What difficulties might funds experience in developing a framework to analyze market impact factors and in producing good faith estimates of market impact factors for purposes of the proposed swing pricing requirement? What are the specific operational challenges in estimating market impact? Are there ways we could reduce those difficulties, while still requiring redeeming investors to bear costs that reasonably represent the costs they would otherwise impose on the fund and its remaining shareholders?

85. Should we permit funds to calculate swing factors on a periodic basis, as long as developments such as significant market developments prompt a quicker re-evaluation, as proposed? Does this approach have any effect on the goals of reducing dilution, improving fairness, and addressing potential first-mover advantages? Are there other circumstances in which a fund should be required to re-evaluate its swing factors or certain swing factor components, such as changes in the fund's investment strategy or liquidity? Should we instead require funds to calculate swing factors (or certain components of swing factors) on a daily basis or at some other defined minimum frequency (*e.g.*, weekly or monthly) unless developments prompt a quicker re-evaluation?

86. Should the rule permit, rather than require, funds to follow the identified inflow swing threshold, market impact threshold, and swing factor calculations set forth in the rule? If so, what considerations or factors should the rule require a fund to consider when determining thresholds and swing factors if the fund determines not to follow the threshold or calculations set forth in the rule? For example, instead of removing the factors a fund must consider when setting swing threshold(s) under the

current rule, should we maintain those or similar factors for purposes of determining a fund's market impact threshold or the inflow swing threshold?²¹⁶

87. Should funds be subject to a numerical limit on the size of swing factors? If so, should we retain the current rule's 2% swing factor upper limit and the disclosure of the limit in Form N-1A? Alternatively, should the limit be higher or lower (*e.g.*, 1% or 3%)?
88. Should we allow a fund to use a set swing factor, such as 2% or 3%, in times of market stress when estimating a swing factor with high confidence may not be possible? How would we define market stress for this purpose? Should a fund's swing pricing administrator, adviser, or a majority of the fund's independent directors, be permitted to determine market conditions were sufficiently stressed such that the fund would apply the set swing factor? Are there other circumstances in which we should permit or require a fund to use a default swing factor? For example, should the rule establish a default swing factor that would apply when a fund has illiquid investments that exceed 15% or when a fund drops below its highly liquid investment minimum under rule 22e-4?
89. Should the rule permit a fund to apply a market impact factor of zero for certain investments or under certain circumstances? For example, should a fund be able to use a market impact of zero for certain categories of investments, such as Treasuries or other investments that the fund classifies as highly liquid investments under rule 22e-4? Are there particular circumstances in which it would not be reasonable for the

²¹⁶

See rule 22c-1(a)(3)(i)(B).

rule to permit a fund to use a market impact factor of zero, such as in stressed market conditions?

90. Instead of specifying swing factor calculations and thresholds in the rule, should we require a fund to adopt policies and procedures that specify how the fund would determine swing pricing thresholds and swing factors based on principles set forth in the rule? If so, should the policies and procedures include the methodologies from the market impact factor calculation we proposed? Should the policies and procedures be required to include the swing factor calculation? Should the policies and procedures be required to define the market impact threshold with reference to a metric other than net purchases or net redemptions? If we require policies and procedures, should we specify the market impacts and dilution costs that a fund's swing pricing program must address, rather than specifying specific principles and calculation methodologies?
91. Are there circumstances in which it would not be possible to estimate the market impact factor with a high degree of accuracy? If so, what modifications should we make to the proposal?
92. Would our proposed swing pricing requirement cause or incentivize investors to move their assets out of the funds that must implement swing pricing into other investment vehicles that do not use swing pricing, such as ETFs, collective investment trusts ("CITs"), or separately managed accounts? What are the potential effects associated with these decisions? For example, when would such movements occur (*e.g.*, before the end of the compliance period for a swing pricing requirement, if adopted, or over a longer time horizon)? Would retirement plan sponsors or others

remove mutual funds as investment options if swing pricing is required? In the case of separately managed accounts, should the Commission take any action with respect to how the Investment Company Act may apply to investment advisory programs seeking to provide the same or similar professional management services on a discretionary basis to a large number of advisory clients having relatively small amounts to invest?²¹⁷

93. Would a swing pricing requirement change the behavior of funds? For example, would it cause any changes to fund strategies or practices?

94. How might swing pricing affect investor behavior in a period of liquidity stress?

Would swing pricing increase fund resilience by reducing the first-mover advantage that some investors may seek during periods of market stress? Would swing pricing encourage investors to redeem smaller amounts over a longer period of time because investors will not know whether the fund's flows during any given pricing period will trigger swing pricing and, if so, the size of the swing factor for that period?

95. Based on historical data, how would our swing pricing framework affect funds' transaction prices under normal market conditions?

96. Rather than requiring funds to adopt a swing pricing requirement, should we provide more than one approach to mitigate dilution and require each fund to implement an anti-dilution tool, but permit each fund to determine its own preferred approach? If so, which anti-dilution tool options should the rule provide? Should we, for example, allow a fund to adopt swing pricing, a liquidity fee (*i.e.*, purchase and/or redemption fees), or dual pricing?²¹⁸ Are there other options that would be appropriate under this

²¹⁷ See, e.g., 17 CFR 270.3a-4.

²¹⁸ See *infra* section II.D for a discussion of potential liquidity fee or dual pricing frameworks.

approach? Would funds' use of different approaches benefit investors by increasing investor choice or, conversely, would these differences confuse investors or make it more difficult for them to compare funds with each other?

97. The current rule requires a fund's board of directors to approve the fund's swing pricing policies and procedures and to designate the persons responsible for swing pricing. Should we require board involvement in the day-to-day administration of a fund's swing pricing program in addition to its compliance oversight role? How might funds maintain segregation between portfolio management and swing pricing administration? Should a fund's chief compliance officer have a designated role in overseeing how the fund applies the proposed swing pricing requirement?
98. The current rule requires a fund's board to review, no less frequently than annually, a report prepared by the swing pricing administrator on the fund's use of swing pricing, including the effectiveness of the fund's policies and procedures and any material changes to them since the last report. Should we require board review of a swing pricing report more or less frequently than annually? Should we require less frequent board review over time (*e.g.*, every quarter for the first year after implementation and then less frequently in following years as the fund gains experience implementing the swing pricing program under various market conditions)? Should we require the fund to disclose any material inaccuracies in the swing pricing calculation to the board (*e.g.*, as they arise, no less frequently than quarterly, or at some other frequency)? Would this disclosure requirement be additive, or would fund boards already receive

information about material inaccuracies in the swing pricing calculation in the course of existing board oversight?²¹⁹

99. In addition to the proposed requirement that funds would publicly report their swing factor adjustments on Form N-PORT, should funds also be required to post that same information on their websites? If so, how promptly should website reporting be required (*e.g.*, weekly, monthly, quarterly, annually)? Are there other ways to provide this information to investors?

C. Hard Close

Currently if an investor submits an order to an intermediary to purchase or redeem fund shares, that order will be executed at the current day's price as long as the intermediary receives the order before the time the fund has established for determining the value of its holdings and calculating its NAV (typically 4 p.m. ET).²²⁰ The fund, however, might not receive information about that order until much later, sometimes as late as the next morning. We are proposing amendments to rule 22c-1 under the Act to require a hard close for those funds that are required to implement swing pricing.²²¹ The proposed hard close requirement would provide that a direction to purchase or redeem a fund's shares is eligible to receive the price established at the

²¹⁹ See, *e.g.*, 17 CFR 270.38a-1 (requiring the fund's chief compliance officer to provide a written report to the board addressing each material compliance matter occurring since the date of the chief compliance officer's last report to the board); Compliance Programs of Investment Companies and Investment Advisers, Investment Company Act Release No. 26299 (Dec. 17, 2003) [68 FR 74713 (Dec. 24, 2003)] ("Rule 38a-1 Adopting Release"), at n.84 ("Serious compliance issues must, of course, always be brought to the board's attention promptly, and cannot be delayed until an annual report.").

²²⁰ Although not all funds calculate their NAVs as of 4 p.m. ET, throughout this release we use 4 p.m. ET as the time as of which a fund calculates its NAV unless otherwise noted.

²²¹ As discussed above in section II.B, swing pricing would be required for all registered open-end management investment companies other than money market funds and ETFs. The proposal would not affect the operation of current rule 22c-1 for money market funds or ETFs, as well as unit investment trusts (which are also subject to rule 22c-1).

current day's price solely if the fund, its designated transfer agent, or a registered securities clearing agency (collectively, "designated parties") receives an eligible order before the pricing time as of which the fund calculates its NAV.²²² Orders received after the fund's established pricing time would receive the next day's price.²²³ In 2003, the Commission proposed a similar hard close requirement but did not adopt the proposed amendments.²²⁴ The proposed hard close amendments would serve multiple goals, such as facilitating mutual funds' ability to operationalize swing pricing by ensuring that funds receive timely flow information, modernizing and improving order processing, as well as helping to prevent late trading.

1. Purpose and Background

We are proposing to require all registered open-end funds (other than money market funds and ETFs) to implement swing pricing in order to combat dilution. Our hard close proposal is designed to support the proposed swing pricing amendments by facilitating the more timely receipt of fund order flow information. To implement the proposed swing pricing requirement, mutual funds need sufficient net order flow information to determine whether to apply a swing factor, and the size of that swing factor, before they finalize that day's price. Based on staff outreach with foreign regulators and asset managers that operate in Europe, we understand that a hard close is common in other jurisdictions in which funds currently implement swing pricing, and use of a hard close in those jurisdictions facilitates the receipt of timely flow information to

²²² See proposed rule 22c-1(a)(3).

²²³ Funds generally compute their NAVs once per day, although some funds compute their NAVs multiple times per day. For simplicity, this discussion assumes that a fund computes its NAV once per day.

²²⁴ See Amendments to Rules Governing Pricing of Mutual Fund Shares, Investment Company Act Release No. 26288 (Dec. 11, 2003) [68 FR 70388 (Dec. 17, 2003)] ("2003 Hard Close Proposing Release").

inform swing pricing decisions.²²⁵ The proposed hard close requirement would facilitate the more timely receipt of order flow information by requiring that the fund, its transfer agent, or a clearing agency receive all orders that are eligible to receive that day's price before the fund computes its NAV.

Beyond facilitating swing pricing, our proposed hard close amendments to rule 22c-1 also would help prevent late trading of fund shares. Because a financial intermediary currently can submit an order that it received before 4 p.m. ET to a designated party after 4 p.m. ET for execution at that day's NAV, there is a risk that an intermediary could unlawfully alter orders using after-hours information to benefit the intermediary or its clients. The Commission and others uncovered several instances of late trading in the early 2000s.²²⁶ While the Commission adopted rules to address concerns about late trading, we believe that the hard close proposal, when coupled with our current rules, would more effectively prevent late trading.²²⁷ For example, some fund intermediaries are not subject to examination by the Commission and staff, and we are unable to examine whether those intermediaries permit or engage in unlawful late trading. By proposing to require that all purchase and redemption orders be received by the fund, its transfer

²²⁵ We understand that the hard close employed in these other jurisdictions is not necessarily the same as the hard close approach we are proposing. For example, we understand it is common in some other jurisdictions for the required time of receipt of orders by the fund to be several hours before the time as of which the fund values its holdings.

²²⁶ *See, e.g.*, 2003 Hard Close Proposing Release, *supra* note 224 (discussing investigations by Commission staff of suspected late trading, which suggested that, at the time, late trading of fund shares was not an isolated event). *See, also, e.g.*, In the Matter of Steven B. Markovitz, Investment Company Act Release No. 26201 (Oct. 2, 2003); In the Matter of Theodore Charles Sihpol, III, Investment Company Act Release No. 27113 (Oct. 12, 2005); In the Matter of Legg Mason Wood Walker, Inc., Investment Company Act Release No. 27071 (Sept. 21, 2005); In the Matter of Canadian Imperial Holdings, Inc. and CIBC World Markets Corp., Investment Company Act Release No. 26994 (July 20, 2005); In the Matter of Brean Murray & Co., Inc., Investment Company Act Release No. 26761 (Feb. 17, 2005).

²²⁷ *See, e.g.*, Rule 38a-1 Adopting Release, *supra* note 219 (adopting rule 38a-1 under the Act, which requires written policies and procedures reasonably designed to prevent violation of the securities laws, oversight of compliance by the fund's service providers, and designation of a chief compliance officer).

agent, or a registered clearing agency by 4 p.m. ET, the proposal would prevent intermediaries from altering orders after 4 p.m. ET or unlawfully misrepresenting that an order was received before 4 p.m. ET and entitled to that day's price. We believe that the proposed amendments would aid in the elimination of late trading through intermediaries by requiring certain SEC-regulated parties to receive orders before the NAV is computed to receive that day's price. The proposed hard close requirement would also modernize and improve order processing and reduce operational risks, as discussed below.

2. Pricing Requirements

Under the proposed rule, an eligible order to purchase or redeem would receive the price for the next pricing time after a designated party receives the order.²²⁸ We propose to define the terms "pricing time" and "eligible order" for purposes of the rule.²²⁹ Eligible orders would receive a price based on the current NAV as of the next pricing time, which would include an adjustment to the NAV to include the swing factor, as applicable. Consistent with the current rule, the fund's board of directors would be required to establish a "pricing time," which would be defined as the time or times of day as of which the fund calculates the current NAV of its redeemable shares pursuant to the rule (typically 4 p.m. ET). The price of a fund's shares would typically be finalized several hours after the pricing time, giving funds time to calculate the current NAV, apply any swing factor, and finalize and publish the fund share price.

For purposes of the proposed hard close requirement, an eligible order to purchase or redeem fund shares would have to supply certain information about the size of an investor's intended trade. This approach is intended to facilitate swing pricing by providing mutual funds with information they can use to calculate investor flows. In addition, this approach requires that

²²⁸ See proposed rule 22c-1(a)(3).

²²⁹ See definitions of "Eligible order" and "Pricing time" in proposed rule 22c-1(d).

trading intentions are clear before 4 p.m., which would further help prevent late trading.

Specifically, we propose to define the term “eligible order” to mean a direction to purchase or redeem a specific number or value of fund shares. For example, an eligible order would include the direction to purchase or sell either (1) a specific number of shares of a fund (*e.g.*, 100 shares, or all the shares held in the account), or (2) an indeterminate number of shares of a specific value (*e.g.*, \$10,000 of shares of the fund).

The proposed definition of eligible order also would include exchange orders. An exchange refers to the process in which an investor initiates an order to purchase shares of a fund using the proceeds from a contemporaneous order to redeem shares of another fund. When an exchange is initiated, two transactions are created—a redemption of securities and a purchase. We understand that exchanges are often between funds in the same fund complex, however, exchanges can occur between funds in different complexes. In either case, exchanges often are processed as a single transaction so that both the redemption and purchase components of the exchange receive same-day pricing. For exchanges involving a fixed number of shares on the redemption leg, the amount and number of shares of the second fund to be purchased will not be known until the NAV of the first fund is determined, which will be after the NAV is struck after 4 p.m. ET. For example, if an investor submits an order to redeem 100 shares of Fund A and invest the redemption proceeds in Fund B, the amount of the redemption proceeds from Fund A is not known until Fund A determines its price for that day and, likewise, the purchase amount for Fund B is not known until that time.²³⁰ Under our proposed rules, this exchange transaction

²³⁰ See *supra* section II.B.3 (discussing how a fund whose shares are purchased in an exchange transaction can estimate the size of the inflow for purposes of the proposed swing pricing requirement).

would qualify as an eligible order so that these contemporaneous transactions may continue to occur.

To receive that day's price, a designated party must receive the eligible order before the pricing time.²³¹ The fund's designated transfer agent is a registered transfer agent that is designated in the fund's registration statement filed with the Commission.²³² Currently, NSCC is the only registered clearing agency for fund shares, which operates its Fund/SERV service for processing fund transactions. The proposed rule would specify that eligible orders are irrevocable as of the next pricing time after a designated party receives the order. The proposed requirement of irrevocability of an eligible order is designed to prevent the cancellation or modification of orders by investors or intermediaries after the pricing time applicable to the order.²³³ Preventing the cancellation or modifications of orders after the pricing time would help avoid continuing adjustments to the investor flow information that a fund uses to make swing pricing decisions. In addition, the alteration or cancellation of fund orders after the pricing time may be used as a means to facilitate late trading as fund investors may become aware of new market information after the order has been submitted and after the pricing time. We request comment on the proposed approach to implementing the hard close requirement, including:

100. Should we make any changes to the definitions included in the proposed rule? Is

the definition of "eligible order" clear and understandable? Is the definition of

²³¹ Although orders would have to be received by Fund/SERV or the designated transfer agent by 4 p.m. ET to ensure same-day pricing, the clearing agency and designated transfer agent each may complete its processing after the pricing time.

²³² See proposed rule 22c-1(d). The term "transfer agent" has the same meaning as in section 3(a)(25) of the Exchange Act [15 U.S.C. 78c(a)(25)] and does not include underlying or sub-transfer agents. A fund may designate more than one transfer agent in its registration statement.

²³³ The irrevocability of an order does not prevent a fund from rejecting an order and does not affect the ability of a fund to maintain policies and procedures for correcting bona fide errors.

“designated transfer agent” clear and understandable? Is the definition of “pricing time” clear and understandable”? Are there other terms we should define?

101. Should the proposed hard close requirement permit exchanges, as proposed? If not, what goals of the proposed hard close requirement would be supported by no longer permitting exchanges?
102. Should the definition of “eligible order” require orders to be irrevocable as of the pricing time, as proposed? Should funds be permitted to correct bona fide errors under a hard close, as proposed? If not, how should errors be resolved? Are there other reasons why an eligible order should not be considered irrevocable as of the pricing time?
103. Should the definition of “eligible order” include directions to purchase or redeem a specific percentage of fund shares in an account or a specific percentage of an account’s value?
104. To what extent do designated parties already time stamp orders based on the time of receipt? Should we include new requirements for each designated party to time stamp order information for purposes of the hard close requirement?
105. Should we include funds, designated transfer agents, and registered clearing agencies as designated parties, as proposed? Would allowing registered clearing agencies to receive eligible orders for purposes of the hard close delay the ability of the fund’s swing pricing administrator to assess investor flow information to make swing pricing decisions? If so, how long would this delay be?
106. Beyond the proposed designated parties, are there other parties involved in processing order information that should be eligible to receive eligible orders before

the pricing time so that orders may receive that day's NAV? For example, should a fund's principal underwriter qualify as a designated party and, if so, why? To what extent do direct investors or intermediaries today place orders with a fund's principal underwriter or directly with the fund's transfer agent?

107. Should we limit the proposed hard close requirement to funds that must implement swing pricing under the amendments to rule 22c-1, as proposed?

108. The proposed amendments to rule 22c-1 would establish different requirements for money market funds, transactions by authorized participants with ETFs, and unit investment trusts than for all other open-end funds, which would be required to implement a hard close. Would investors, funds, or intermediaries be confused by the different pricing requirements that would be created by the proposed amendments to rule 22c-1? If so, what confusion would be created? What party to a transaction would bear that confusion? Would additional burdens be created by having different pricing requirements under proposed rule 22c-1 for these different types of registered investment companies?

3. Effects on Order Processing, Intermediaries and Investors, and Certain Transaction Types

The proposed hard close would require changes to current order processing practices. Although modernizing these practices is intended to reduce operational risk and enhance resilience, in addition to the benefits related to swing pricing and helping deter late trading, we recognize these changes would also involve costs.²³⁴

²³⁴ See *infra* section III.C.3 discussing the estimated costs of the hard close proposal on funds, designated parties, intermediaries, and investors.

a. Order Processing Improvements

The system updates that would support the implementation of a hard close may provide additional benefits by requiring modernization of how orders are processed. Today, some intermediaries net their customers' purchase and redemption orders in a given fund against each other, meaning that an intermediary combines and offsets the value of purchase and redemption activity across multiple customer accounts. Instead of netting purchases and redemptions together, some other intermediaries maintain separation between purchase orders and redemption orders. After aggregating customers' orders, intermediaries then submit orders in one or more batches, with most orders submitted to the designated party after 4 p.m. ET. As a result of the proposed hard close requirement, some intermediaries may opt to discontinue infrequent or even once-a-day batch processes for submitting orders and instead adopt more frequent batch processing approaches that result in more frequent order submission throughout the business day. Some intermediaries may even elect to utilize message-based communications for order flow, in which orders are submitted on a near-real-time basis.²³⁵ We understand based on industry outreach that some intermediaries currently do not submit orders throughout the day to facilitate customers' ability to cancel or correct orders intra-day, before the orders are submitted to a designated party. If intermediaries continue to provide this capability to customers under a hard close, they would likely either: (1) need to develop a process with designated parties for cancelling and correcting orders submitted to a designated party before the pricing time (as eligible orders are irrevocable under the proposal as of the pricing time, but not before); or (2)

²³⁵ Intermediaries that take advantage of netting likely would be unable to eliminate batch processing altogether since netting necessitates definition of a period over which trades are netted and a process that collects eligible customer orders and nets them together into a single order for submission to a fund. Message-based communication is less likely to be implemented when netting is utilized.

submit orders to a designated party relatively close in time to the pricing time, instead of throughout the day.

If an intermediary submits orders more often or earlier in the day, it would be less vulnerable to an intra-day disruption within its own operational environment. Orders that have been submitted prior to a disruption are able to be accepted and acknowledged by a fund, even if the intermediary experiences delays in its own processing. This improves the intermediary's operational resilience, since some operational activities on which the intermediary is dependent will be able to continue. Similarly, earlier order submission should also result in earlier confirmations from the fund.²³⁶ As such, the chances increase for an intermediary to submit an order and receive a confirmation even if the fund's transfer agent has a disruption later in the day. This reduces an intermediary's vulnerability to disruptions in others' operational processing, further improving the intermediary's operational resilience. Collectively, as all intermediaries, funds, and fund transfer agents process orders more frequently, operational resilience across all market participants improves.²³⁷

The proposed hard close would also eliminate cancellations and corrections that are submitted after the pricing time. As a result, an investor or intermediary would bear the cost, if any, of the errors leading to a cancel or correct order. We believe it would be unfair for a fund's shareholders to bear the cost of an error in this case, as the investor or intermediary was the cause of that error. For errors that were the intermediary's responsibility, the intermediary should

²³⁶ The term "confirmation," for the purposes of this release, unless otherwise indicated, refers to the process by which a fund accepts a purchase or redemption order. The confirmation process discussed in this section is different from the confirmations required by 17 CFR 240.10b-10 (Exchange Act rule 10b-10). Confirmations under rule 10b-10 require broker-dealers to provide specific disclosures in writing to customers at or before the completion of a transaction. *See* rule 10b-10 under the Exchange Act.

²³⁷ *See infra* section II.C.3.b for additional complexity and possible points of failure in current order processing practices.

be solely accountable for correcting the error and, if necessary, compensating the investor. We understand that currently some intermediaries and funds have complex processes for posting cancellations and corrections, including processes for funds to bill intermediaries for errors.

In addition, the proposed hard close requirement would improve the confirmation process for funds. The confirmation process helps ensure the accuracy of the trade that will be settled. Until the fund provides a confirmation, an intermediary does not know whether the order will be accepted or rejected. Under current practice, we understand that because of the delay in intermediaries submitting orders, funds likewise issue order confirmations on a delayed basis. When an intermediary must submit all orders by a certain time under the hard close proposal, funds would be able to issue confirmations to intermediaries earlier. We believe that timelier confirmations by funds would support the reduction of operational risks and improve market resiliency by providing certainty to intermediaries and investors about whether orders are accepted or rejected at an earlier point in the process, meaning they have more time to work toward settlement of the trade or determine how to manage a rejected order.²³⁸ Further, intermediaries similarly may be able to issue trade confirmations required by rule 10b-10 of the Exchange Act to their customers on a timelier basis, although an intermediary will need to wait until the price is published before it can calculate the net money or number of shares to issue the trade confirmation to its customer. Requiring a hard close may also facilitate settlement modernization. Many funds settle purchases and redemptions on a T+1 basis, and the proposed hard close could help improve the settlement process by providing complete information about eligible orders on the trade date.

²³⁸ An order may be rejected for a variety of reasons including, among others, the intermediary is not set up to transact with a particular fund, an order to sell is for more than the number of shares held, or an order to purchase is less than the fund's investment minimum.

In addition, providing funds with more timely and accurate information about the fund's daily flows under the proposed hard close would allow funds to make portfolio and risk management decisions based on more complete and accurate flow information than is available under current practices. Currently, some funds may rely on projected flows when making investment decisions, though these projections may be unreliable because of orders that the fund does not receive until the next day, including cancellations and corrections. Other funds may instead rely on flow information posted at the custodian because of its accuracy, but this information is delayed. For example, for a fund that settles on T+1, the custodian often will post the flow at the end of the day on T+1, which may not be visible to the portfolio manager until the morning of T+2. With a hard close, however, flow information should be available from the transfer agent on the night of the trade date. In addition, by eliminating the possibility that the fund could receive additional orders after the pricing time, including cancellations and corrections, the data available that night would be more reliable. Similarly, a fund managing its risk would be able to do so more effectively by having access to accurate flow data more quickly. Ultimately, the proposed hard close requirement is designed to further the Commission's mission to protect investors and reduce risk by improving the timeliness of order flow information communicated to the fund.

b. Effects on Intermediaries

The proposed amendments would require changes in the ways funds and intermediaries process fund purchase and redemption orders. As discussed above, intermediaries generally submit aggregated and, in some cases netted, orders in one or more batches, often after 4 p.m. ET. Some intermediaries submit orders directly to the fund's transfer agent or to Fund/SERV, while some intermediaries rely on other intermediaries, such as clearing brokers or retirement

platforms, to submit orders to the transfer agent or Fund/SERV. In addition, some intermediaries' systems do not initiate batch processing until a fund's final NAV is received or until final NAVs are received for all funds offered on their platforms.

In response to the proposed hard close requirement, funds and intermediaries would need to make significant changes to their business practices, including updating their computer systems, altering their batch processes, or integrating new technologies that facilitate faster order submission. Intermediaries would need to reengineer their systems to ensure disseminated order information reaches the transfer agent or Fund/SERV before 4 p.m., unless they determine to process fund orders at the next day's price as a matter of practice.²³⁹ For intermediaries with reliance on "downstream" intermediaries, coordination in the timing of order communication will be essential to ensure orders reach the fund, transfer agent, or registered clearing agency prior to the deadline. In addition, Fund/SERV may need to run more batch cycles in the period leading up to 4 p.m. than it does today, as currently batch cycles run into the evening and overnight to receive and process orders from intermediaries.

We understand that retirement plan recordkeepers may face particular challenges with adhering to the proposed hard close requirement.²⁴⁰ Retirement plan recordkeepers may employ a method of order processing that relies on receiving the current day's NAV before submitting orders. Funds do not typically receive the order flow information for transactions from retirement

²³⁹ While the proposed hard close requirement would require intermediaries to transmit eligible orders before 4 p.m. ET, intermediaries would still be able to process orders after 4 p.m. for purposes of execution and settlement, as they currently do today. For example, after receiving the NAV the intermediary would then be able to determine the net money to be paid to the investor or to be collected.

²⁴⁰ See Comment Letter of The Principal Financial Group on 2003 Hard Close Proposing Release, File No. S7-27-03 and Comment Letter of ASPA on 2003 Hard Close Proposing Release, File No. S7-27-03. The comment file for the 2003 Hard Close Proposing Release, where these comment letters can be accessed, is *available at* <https://www.sec.gov/rules/proposed/s72703.shtml>.

plan recordkeepers until well after the day's NAV has been calculated. These order flows are delayed, we understand, due to the calculations that the retirement plan recordkeepers complete under plan rules as well as to legacy systems that require the final NAV before finalizing the order. For retirement plan recordkeepers, we understand that current recordkeeping systems require that day's NAV before the participant's plan instructions may be applied to the participant's order. Once the order has been processed through the investment instructions specific to the participant's plan, it can be placed for execution. In addition, retirement plan recordkeepers may perform compliance and other checks on orders before finalizing the orders for submission post-NAV strike.

We understand that the time it currently takes between when some retirement plan recordkeepers begin to process their orders and when the order is finally submitted to the fund can take upward of six hours due to the limitations of their current processing systems and hardware. We believe that retirement plan recordkeepers would need to substantially update or alter their processes and systems to accommodate the proposed hard close requirement to submit orders more quickly. In the event compliance and other checks are required, plans may need to utilize the prior day's NAV to estimate the share or dollar size of an order for those orders to receive same day pricing.

c. Intermediary Cut-Off Times

To help ensure that order flow information is provided to a designated party before the established pricing time, the proposed rule would likely cause some intermediaries to set their own internal cut-off time for receiving orders to purchase or redeem fund shares that is earlier than the pricing time established by the fund. Intermediaries may use earlier cut-off times to provide time to transmit order flow information to a designated party so those orders receive that

day's price. Investors, therefore, depending on the entity through which an investor is transacting (e.g., a broker-dealer, retirement plan recordkeeper, or the fund's transfer agent), may have different deadlines for the same fund for submission of orders to receive that day's price. For example, an investor submitting an order to a fund's transfer agent might have until 3:59 p.m. ET to submit its order, while an investor submitting an order to an introducing broker would likely have to submit its order earlier to provide enough time for the introducing broker to send the order to the clearing broker and for the clearing broker to send it to the transfer agent or to Fund/SERV.

Investors transacting through intermediaries may lose some flexibility in when they may submit orders through an intermediary to receive that day's price as intermediaries may institute earlier cut-off times. Because technology has advanced since the Commission last considered a hard close in 2003, we generally do not believe, however, that intermediaries would need to establish cut-off times significantly earlier than the pricing time set by the fund. We recognize, however, that layered cut-off times may occur when an intermediary uses one or more tiers of other intermediaries to submit orders, and that cut-off times generally would be earlier for investors submitting orders to lower-tier intermediaries. We also recognize that intermediaries that net order activity or rely on batch processing may require additional time to support such netting or batch activities, while those intermediaries that submit orders individually through message-based communications may have a higher volume of orders submitted, but a shorter time between order submission by an investor and order receipt by a fund, transfer agent, or registered clearing agency. While the proposed hard close requirement generally would cause intermediaries to establish earlier cut-off times, the proposed rule would not prevent an intermediary from transmitting orders it received after its internal deadline but before 4 p.m. ET

on an individual basis to the fund's transfer agent or to Fund/SERV in order to receive that day's price.

d. Effects on Certain Transaction Types

We recognize that the proposed hard close requirement could extend completion times for certain types of transactions, where the specific number or value of fund shares to be purchased or redeemed is unknown until that day's price is available. For example, under certain retirement plan rules, certain transactions, such as plan loans or withdrawals, currently remain incomplete until all fund positions in the investor's accounts are valued using that day's prices. Specifically, some plan provisions specify a hierarchy for drawing from different investments to accommodate participant loan or withdrawal requests. As an example, the plan may require the sale of shares in Fund A to pay the loan or withdrawal before the sale of shares in Fund B. In this case, until that day's final price for Fund A shares is available, the retirement plan recordkeeper may not know if the value of the participant's investment in Fund A is sufficient to pay the loan or withdrawal amount on its own, or if satisfying the loan or withdrawal request in full will also require redemptions from Fund B.

Under the hard close proposal, although plans would not be required to change their rules governing these kinds of transactions, transaction requests that are subject to hierarchy rules may take one or more additional days to complete than they would currently. This is because the retirement plan recordkeeper would no longer be able to wait until final prices are available before calculating and submitting one or more redemption orders to satisfy the requested plan transaction. In the above example, this would mean that the recordkeeper would likely submit an order to redeem shares of Fund A on the first day and may submit an order to redeem shares of Fund B on a subsequent day if the loan or withdrawal is not fully funded. We understand that

these transactions typically are a small percentage of overall retirement plan flows and that plan participants generally do not receive immediate execution of loan or withdrawal requests today.²⁴¹ Thus, we believe the aggregate effect of the proposed hard close requirement on such transactions would not be significant.

As another example, the proposed hard close requirement could extend the period of time for executing an investor's request to rebalance its holdings to a target asset allocation or model portfolio. We understand that currently these requests may be facilitated by first valuing the investor's existing positions, based on final prices for that day, and then submitting orders that would result in the desired allocation. The proposed rule would not permit these orders to receive same-day pricing if they are submitted after the pricing time, and therefore may require the intermediary to achieve the desired rebalancing through a series of orders over more than one day or to rebalance using prices from the prior day. In addition, the proposed hard close might affect current order processing for funds of funds. We understand that a lower-tier fund in a fund of funds structure may not receive purchase or redemption orders from upper-tier funds until well after 4 p.m. Under the proposed rule, the lower-tier fund (or another designated party) would have to receive an upper-tier fund's orders to purchase or redeem the lower-tier fund's shares before the lower-tier fund's pricing time to receive that day's price for the orders.

e. Effects on Investors

The extent to which the hard close proposal would affect investors largely depends on the value investors place on their ability to obtain same-day pricing for orders initiated in the period

²⁴¹ For example, according to one source, in 2021, 4.1% of defined contribution plan participants took withdrawals, and at the end of Dec. 2021, 12.5% of participants of plan participants had loans outstanding. *See* ICI Research Report, Defined Contribution Plan Participants' Activities, 2021 (Apr. 2022), *available at* https://www.ici.org/system/files/2022-04/21_rpt_recsurveyq4.pdf.

immediately before 4 p.m. ET or on the complex transaction types discussed above.²⁴² Most fund shareholders are long-term investors, and thus we believe that most fund orders are not time sensitive. In addition, because of advances in technology, it seems likely that intermediaries would set cut-off times that are only incrementally earlier than current cut-off times. As a result, it seems likely that many investors would experience a significant change in when they must submit their orders to intermediaries. For those investors who place a premium on being able to place orders up until 3:59 p.m. ET, they generally could place orders with the fund's transfer agent to retain this option.²⁴³ While we understand that investors may experience a change in how late they may transact through intermediaries that set earlier cut-off times as a result of our proposed rule, overall the proposal is intended to better protect shareholders' interests by operationalizing swing pricing to combat shareholder dilution and enhancing fund resiliency. We request comment on the effects of the proposed hard close on order processing, intermediaries and investors, and on different transaction types:

109. Should we require funds to implement the proposed hard close requirement? Are there alternatives to the proposed hard close requirement that we should implement? Would the proposed hard close requirement help funds operationalize swing pricing? Would the proposed hard close requirement help prevent late trading? Are the Commission's efforts to modernize fund order processing supported by the proposed hard close requirement?

²⁴² Rule 22c-1 already affects investors differently based on the time zone in which the investor lives. Investors located in time zones other than the eastern time zone are subject to different cut-off times today. For example, 4 p.m. ET is 10 a.m. Hawaii time, meaning that an investor in Hawaii has to submit its order before 10 a.m. to receive that day's NAV if the fund's pricing time is 4 p.m. ET.

²⁴³ See *infra* section III.C.3 discussing that some investors may be affected by the proposed hard close requirement if they desire to transact later in the day in response to market events and are limited in their ability to change intermediaries or place orders with the fund's transfer agent.

110. What steps would intermediaries be required to take to operationalize the proposed hard close requirement? Are there operational impediments to funds implementing the proposed hard close requirement? Are there operational impediments for intermediaries, transfer agents, and/or registered clearing agencies in implementing the proposed hard close requirement? Are there other operational changes that would be helpful to operationalize swing pricing?
111. Would retirement plan providers need to make changes to plan rules in order to accommodate compliance with a hard close? Are plan rules able to be altered for plans that are currently owned, or would alterations only be feasible on a going forward basis? If a change in plan rules would be necessary, how would plan rules need to be altered? How would plan participants be affected by changes to plan rules?
112. Would the proposed rule affect intermediaries' ability to net order flow? Would intermediaries move to message-based communications, where orders are transmitted to the transfer agent or registered clearing agency as they are received, in response to the proposed hard close requirement?
113. Would elimination of cancellations and corrections that designated parties currently may receive after the pricing time streamline processing and reduce costs for funds and/or designated parties and, if so, by how much? Would costs for investors be affected by the elimination of these cancellations and corrections?
114. Should there be any exceptions from the proposed hard close requirement for exigencies or types of parties? For example, should there be exceptions for certain scenarios (*e.g.*, emergencies), fund types (*e.g.*, funds of funds), or intermediaries (*e.g.*, retirement plan recordkeepers)? If so, what should be the parameters of such

exceptions? For example, should we permit investor orders to receive same-day pricing treatment as the result of an emergency, if the intermediary is unable to send orders or a designated transfer agent or clearing agency is unable to receive orders? Should an emergency exception be conditioned on the board or the chief executive officer of the intermediary, transfer agent, or clearing agency certifying to the nature and duration of the emergency and, in the case of an intermediary, that the intermediary received the orders before the applicable pricing time? Should we permit conduit funds, which invest all their assets in another fund and must calculate their NAV on the basis of the other fund's NAV, and which include master-feeder funds and insurance company separate accounts, to receive same-day pricing? Should we provide an exception to permit certain intermediaries, such as retirement plan recordkeepers, to receive same-day pricing for the orders they submit, even if not received by a designated party before the pricing time, as long as the relevant intermediary received the orders before the pricing time? Should there be other conditions associated with such an exception, such as a requirement to provide advance notice of certain flow information to the fund or another designated party?

115. Should we provide an exception from the proposed hard close requirement for certain transaction types (*e.g.*, retirement plan loans or withdrawals or certain rebalancing transactions)? Should we amend the definition of eligible order to include these or other transaction types? If so, what information should we require the intermediary to supply to a designated party before the pricing time to qualify for same-day pricing? Should retirement plan recordkeepers or other intermediaries be permitted to estimate order flow information for specific transaction types, like loans

or withdrawals? Would the estimates be prepared using the prior day's price, or through some other method?

116. If exceptions to the hard close were permitted, how would that affect the proposed swing pricing requirement?

117. Would the proposed hard close requirement help retirement plan recordkeepers to reduce their batch processing cycles and, if so, how?

118. Should the rule permit a fund or other designated party to impose a cut-off for orders received before that day's NAV computation? For example, if the time for an order to receive that day's NAV is 4 p.m. ET, should the fund be permitted to impose an earlier time of day, say 2 p.m. ET, as an earlier cut-off time to receive orders?

Would the ability to disconnect the cut-off time for receiving orders from the pricing time help facilitate swing pricing by providing additional time to calculate the swing factor?

119. If different funds adopted different cut-off times for receipt of orders pursuant to rule 22c-1, would intermediaries and transaction processing systems be able to accommodate such differences on a fund specific basis? How would different cut-off times affect investors? Would it be confusing or challenging for investors if there were variation among funds' cut-off times?

120. If most funds continue to calculate their NAVs as of 4 p.m. ET and, as proposed, funds are required to implement swing pricing and are subject to a hard close, would funds have sufficient time between 4 p.m. ET and when they publish their prices to assess their flow information and apply the proposed swing pricing requirement, including determination of a swing factor, as applicable? If not, how might funds

adjust their practices to provide more time to make swing pricing determinations? For example, would funds publish their prices later than they typically do, which is currently several hours after the pricing time?²⁴⁴ Are there any changes we could make to facilitate later publication of prices, if needed? As another example, would funds begin to calculate their NAVs as of an earlier time than 4 p.m. ET? What affect, if any, would such a change have on transaction processing and the valuation of the fund's investments?

121. How would the proposed hard close requirement affect investors? For example, what percentage of investors place orders shortly before 4 p.m., and how important is it for those investors to receive that day's price as opposed to the next day's price? When intermediaries establish their own cut-off times by which customers must place orders to receive that day's price, would these cut-off times be close to 4 p.m. ET as a result of competition among intermediaries and customer demand? Are intermediaries able to accelerate the time between receiving an order and relaying that order to a designated party compared to current practice? Would it be confusing or challenging for investors if there were variation among intermediaries' cut-off times? Are there circumstances in which intermediaries would transmit orders received after their internal cut-off times and before 4 p.m. ET to a fund's transfer agent or to Fund/SERV individually to receive same-day pricing? Would this increase the risk of errors or otherwise be burdensome on funds or intermediaries?
122. Should the rule initially require that funds receive order flow information by a time that is after the pricing time in order to "phase in" the proposed hard close

²⁴⁴ See *infra* section III.C.2.a (discussing the potential effects on intermediaries and other market participants if funds were to publish their prices later than they currently do).

requirement? For example, instead of requiring a designated party to receive all of a fund's order flow information by 4 p.m. ET each day, should we initially require receipt of order flow information by the designated party one to two hours after the pricing time with the goal of eventually moving the time of receipt to before the pricing time? Would a delayed phase in of the proposed hard close requirement be compatible with the proposed swing pricing requirement? If so, how would a fund determine whether to swing its NAV if it does not have all of its order flow information until after the pricing time?

123. We understand that intermediaries currently may adjust trade amounts to account for commissions or other fees. Would the proposed hard close requirement affect how these adjustments are made? If so, should we make any changes to the proposed approach to better accommodate such adjustments?

124. Would earlier confirmations from a fund to an intermediary reduce an intermediary's vulnerability to disruptions? Would intermediaries process orders more frequently under a hard close? If so, would more frequent order processing increase the resiliency of funds and transfer agents? If not, why not?

125. Would intermediaries need to set earlier cut-off times than is the current practice for investors in order to get orders to a designated party before the pricing time? If so, how early? How much time do intermediaries need to process order flow information?

126. Should the rule require that funds set a uniform cut-off time for orders to be received by intermediaries? If the rule requires a uniform cut-off time, should we also require that a fund disclose the cut-off time, such as in the fund's prospectus? Would

funds, collectively, establish consistent cut-off times for these purposes, or would intermediaries need to manage different fund-specific cut-off times?

127. Some intermediaries may establish earlier cut-off times in order to accommodate a hard close. Would investors that want to make an order up until 3:59 p.m. place orders with a fund's transfer agent instead of with an intermediary to preserve this flexibility? Are there limitations on certain investors' abilities to place orders with the transfer agent instead of through an intermediary?

128. Would some intermediaries choose to no longer distribute open-end funds that would be subject to the hard close requirement in order to avoid compliance costs? In addition, would retirement plan providers be more likely to replace mutual funds as plan investment options with ETFs or CITs? If so, how would this affect investors?

4. Other Proposed Amendments to Rule 22c-1

The proposed amendments would retain the requirements of the current rule concerning the frequency and time of determining the NAV, but would reorganize and reword those provisions.²⁴⁵ The proposed amendment would use the phrase “based on the current net asset value of such security established for the next pricing time,” as opposed to “based on the current net asset value of such security which is next computed” in the current rule. While its substance is already required, this amendment would codify in the rule text that orders received after the pricing time, but before calculation of the NAV is complete, do not receive same-day pricing.²⁴⁶ We also propose to reorganize certain other provisions of rule 22c-1, including the existing

²⁴⁵ See rule 22c-1(a), (b)(1), and (d); proposed rule 22c-1(a).

²⁴⁶ See 2003 Hard Close Proposing Release, *supra* note 224, at n.26.

exceptions to the rule's forward pricing requirement.²⁴⁷ In addition, we propose to revise certain terminology in the rule.²⁴⁸

We are also proposing to remove the provision from rule 22c-1 that would allow funds not to calculate their current NAV on days in which changes in the value of the fund's securities will not materially affect the current NAV. We believe this provision is no longer necessary because a fund generally would need to determine its current NAV in the first instance before it could conclude with certainty that changes in the value of the fund's securities would not materially affect the fund's current NAV.

We request comment on the other proposed amendments to rule 22c-1, including:

129. Are our proposed amendments to provide that orders received after the pricing time, but before calculation of the NAV is complete, do not receive same-day pricing sufficiently clear?
130. Should we retain the current provision in rule 22c-1 that allows a fund not to calculate its NAV on days when the changes in the value of the fund's portfolio securities do not materially affect the current NAV? If so, how would this affect the ability of a fund to implement swing pricing? Do any funds rely on this provision today? If so, what are the scenarios in which a fund relies on this provision? How are changes in the value of the fund's securities determined if the fund is not valuing the underlying securities and computing the NAV on a daily basis?

²⁴⁷ See rule 22c-1(a)(1), (a)(2), and (c); proposed rule 22c-1.

²⁴⁸ For example, we propose to replace references to "orders" in the current rule with references to "directions" to purchase or redeem, which is intended to distinguish between the concept of eligible orders that we propose to add for purposes of the proposed hard close requirement and directions to purchase or redeem shares of other registered open-end investment companies that are not subject to the proposed hard close requirement. As another example, we propose to incorporate the term "pricing time" into provisions of the rule that are not specific to the hard close requirement for cohesion of the rule.

5. Amendments to Form N-1A

Open-end funds use Form N-1A to register under the Investment Company Act and to register offerings of their securities under the Securities Act. Item 11 of Form N-1A requires a fund to describe how it prices its shares. Item 11(a) specifically requires that funds state when they calculate the NAV and that the price at which a purchase or redemption is effected is based on the next NAV calculation after the order is placed. We are proposing to amend this disclosure to also require, if applicable, that funds disclose that if an investor places an order with a financial intermediary, the financial intermediary may require the investor to submit its order earlier than the fund's pricing time to receive the next calculated NAV. As discussed above, intermediaries may set different times by which investors must have their purchase or redemption orders in place to receive that day's price. We believe that this proposed disclosure is important so that investors may understand the potential variability in the time by which intermediaries may require an order to be placed to receive a particular day's price.

We request comment on the proposed amendments to Form N-1A, including:

131. Would the proposed requirement for funds to disclose in their prospectuses that orders placed with intermediaries may need to be submitted earlier to receive that day's price be helpful to investors?
132. In addition to the proposed disclosure requirements, are there additional disclosures relating to the proposed hard close requirement that we should require? Should funds be required to disclose the cut-off times of their intermediaries in their distribution network? If so, where should this disclosure be located (*e.g.*, in the fund's registration statement or on its website)? What potential challenges, if any, would a fund encounter in providing an up-to-date list of intermediary cut-off times?

D. Alternatives to Swing Pricing and a Hard Close Requirement

1. Alternatives to Swing Pricing

In lieu of the proposed swing pricing requirement, we have also considered whether there are alternative methods by which we could require funds to pass on costs stemming from shareholder purchase or redemption activity to the shareholders engaged in that activity. These alternatives could be used independently or in combination with each other. Some of these alternatives would be dependent on investor flow information, similar to the proposed swing pricing requirement. In those cases, an alternative could be paired with either a hard close requirement or one of the alternatives to the hard close that we discuss below.

a. Liquidity Fees

One alternative we considered is a framework that would apply a charge in the form of a liquidity fee rather than an adjustment to the fund's price.²⁴⁹ A liquidity fee would apply as a separate charge to a transacting investor and would not change the fund's price. A liquidity fee could be used to impose liquidity costs on purchasing or redeeming investors and address dilution, much like a swing pricing-related price adjustment. We recognize that a liquidity fee framework could have certain advantages over a swing pricing requirement. For example, liquidity fees provide greater transparency for redeeming or purchasing investors of the liquidity costs they are incurring. Liquidity fees also provide a mechanism for imposing liquidity costs directly on purchasing or redeeming investors, without adjusting the transaction price for

²⁴⁹ Although certain U.S. funds may use liquidity fees for redemptions, they are rarely used to address dilution, other than in the case of short-term trading of fund shares. *See* rule 22c-2 under the Act. The use of redemption fees and anti-dilution levies in Europe varies to some extent by jurisdiction. For example, Irish-domiciled funds are more likely to have adopted anti-dilution levies than Luxembourg-domiciled funds. Overall, however, we understand that swing pricing was more widely used by European fund complexes in Mar. 2020 than redemption fees or anti-dilution levies. *See* ICI, Experiences of European Markets, UCITS, and European ETFs During the COVID-19 Crisis (Dec. 2020), *available at* https://www.ici.org/doc-server/pdf/%3A20_rpt_covid4.pdf.

investors who are trading in the other direction.²⁵⁰ In addition, some funds and their intermediaries are currently equipped to apply certain purchase and/or redemption fees.²⁵¹

However, the proposed swing pricing requirement may have several advantages over liquidity fees for relevant open-end funds. With swing pricing, a fund can pass liquidity costs on to redeeming or purchasing investors in a fair and equal manner, without any reliance on intermediaries to achieve fair and equal application of costs. Liquidity fees may require more coordination with a fund's intermediaries than swing pricing because fees need to be imposed on a transaction-by-transaction basis by each intermediary involved—which may be difficult with respect to omnibus accounts that intermediaries may create to aggregate all customer activity and holdings in a fund.²⁵² Funds and their transfer agents may contract with intermediaries to have them impose liquidity fees under these circumstances, which may include a review of contractual arrangements with fund intermediaries and service providers to determine whether any contractual modifications are necessary or advisable to ensure that liquidity fees are appropriately applied to beneficial owners of fund shares. While we could require intermediaries to submit purchase and redemption orders separately to transact in a fund's shares, which could

²⁵⁰ For instance, on a day the fund has net redemptions, swing pricing adjusts a fund's NAV downward, and investors who purchase the fund's shares that day buy at a discount. On a day when a fund has net purchases, swing pricing adjusts a fund's NAV upward, and investors who sell the fund's shares that day sell at a premium. Swing pricing must account for these discounts or premiums that other investors are receiving to fully address dilution.

²⁵¹ For example, some funds impose redemption fees under rule 22c-2 under the Investment Company Act. *See supra* note 67 for a discussion of how many funds we estimate apply redemption fees.

²⁵² *See infra* section III.E.2 (noting certain omnibus accounting practices that may make a liquidity fee operationally difficult). Swing pricing, on the other hand, would require some funds and intermediaries to create new systems and operational procedures, but once those are in place, swing pricing would be incorporated in the process by which a fund strikes its NAV and sets the transaction price (including any swing of the NAV). Intermediaries would then effect customer transactions at the transaction price, as they do today, without further operational changes or coordination with the fund.

allow funds and their transfer agents to apply fees directly, this type of requirement would also involve some operational costs. Requiring intermediaries to submit purchase and redemption orders separately would require operational changes for some intermediaries because they would no longer be able to net otherwise offsetting customer purchases and redemptions.²⁵³ In addition, the volume of transactions that transfer agents and Fund/SERV process would increase if netting were not permitted. Further, unlike swing pricing, the amount collected from a liquidity fee is not available to the fund for a period of time until the intermediary remits to the fund the amount charged.²⁵⁴ If the fund is under stress, the unavailability of the amount collected from fees might cause the fund to incur other costs it might not have otherwise incurred, such as costs associated with selling investments to pay redemptions when the fee amount, if remitted, would have helped the fund pay those redemptions.

There are many potential variations of a liquidity fee framework. The trigger for applying fees could be based on net flows, similar to swing pricing, or other indicators that a fund's trading costs are increasing (*e.g.*, widening spreads or reduced liquidity of the fund's portfolio investments). Alternatively, a fee could apply to all trades of a given type (for example, all redemption orders). When a fee applies, the determination of the size of the liquidity fee could be either dynamic to reflect changing costs or simplified to remain relatively static. As for how the fee is processed, it could be applied to the purchase or sale or could be processed separately from the trade.

²⁵³ See *supra* section II.C.3.a (discussing that some intermediaries currently net orders, while others separately submit purchase and redemption orders).

²⁵⁴ While money collected from the fee would not be available to the fund until the intermediary remits payment, we understand that a fund would reflect the fee amount it is owed as an accrual until the fund receives the fee payment. The accrual would help prevent declines in the fund's NAV that would otherwise result from any delay in remittal. Proper booking of the accrual would, however, require the intermediary to inform the fund of the fee amount on an accurate and timely basis.

As an example, similar to the proposed swing pricing requirement, a dynamic liquidity fee could be calculated to reflect certain costs (*e.g.*, spread, other transaction costs, and market impact) a fund is likely to incur to meet redemptions or invest the proceeds from subscriptions based on the direction and magnitude of that day's flows. Dynamic liquidity fees that may change in size from one day to the next may involve greater operational complexity and cost than swing pricing, as intermediaries would have to identify and apply different fee amounts for each fund in which their clients transact each day. This approach also generally would necessitate timely flow information if the fee were processed as part of a transaction, similar to the proposed swing pricing requirement. If the fee were processed separately from the transaction and applied to an investor's account on a delayed basis, a fund would likely have more time to receive flow information than under the proposed swing pricing requirement, which could avoid the need for a hard close or related alternatives. Delayed application of the fee, however, may raise complications related to collecting fee amounts from investors, particularly when an investor has otherwise redeemed the full amount of its holdings. Follow-on fees also significantly increase the number of transactions to process, and may complicate reporting for custodians and advisers in situations where a transaction may occur in one reporting period but the fee related to the transaction is not applied until the next reporting period. In addition, an intermediary may face difficulties projecting upcoming cash balances in its client accounts if there are upcoming fees to be charged, but the amounts of those fees are unknown. The fund itself may also have challenges with projecting its own cash balance if it cannot predict when accrued fees will be received from each intermediary.

Instead of a dynamic liquidity fee, we could require a simplified liquidity fee. A simplified liquidity fee, for example, could be a set percentage of the transaction amount, such as

1%. Or it could be a default fee, such as 1%, that a fund could adjust up (possibly up to a cap) or down as it determines is in the best interest of the fund. A simplified liquidity fee could apply to both purchases and redemptions, given that both purchases and redemptions can contribute to dilution. Under this type of approach, fees could be equivalent for both transactions, or fees could be higher on one side and lower on the other (for example, a purchase fee of 0.25% and a redemption fee of 1%). Alternatively, we could require a one-sided simplified fee that applies to redemptions only or to purchases only, with the premise that a fee charged on redemptions could also help to offset dilution that may result from purchases (or vice versa). Because all shareholders purchase and redeem the fund's shares during the life of an investment, a one-sided fee would apply to all shareholders at some point and could help mitigate dilution that fund investors collectively contribute to through their purchase and redemption activity. A simplified liquidity fee would not necessarily require flow information. For instance, if a simplified fee applied only to redemptions, a set fee could apply to all redemptions or only to redemptions when the fund's trading costs are significantly increasing, such as in times of stress.²⁵⁵ If the dependency on flow information is removed, a simplified liquidity fee likely could be processed as part of a transaction, avoiding the need to process a fee as a separate follow-on transaction.

The size of a simplified liquidity fee likely would be more predictable for investors and intermediaries than a dynamic fee or swing pricing. This would enhance transparency and would likely be easier to implement. While the size of the fee generally would be known in advance, it may or may not be easy to predict when a fee would apply. For example, if a fee applied to all redemptions, then investors and intermediaries would have certainty on when fees would apply. However, if fees applied only in certain circumstances, such as when trading costs are materially

²⁵⁵ We discuss an alternative in which a liquidity fee would apply when a fund's trading costs are significantly increasing in more detail in section II.D.3.b.

increasing or the fund has experienced net redemptions over multiple consecutive days, then application of a fee may be more difficult to predict, particularly if a fund's threshold for applying a fee is non-public or based on factors that are difficult for other market participants to observe or predict. An approach where it is difficult to predict when a fee would apply could help avoid preemptive redemptions in anticipation of fees applying in the near future, but it would also be less transparent. In addition, if liquidity fees are applied rarely, then application of a fee might be viewed as a sign that a fund is under stress, which could incentivize further redemptions, particularly if the fee amount is viewed as minimal.

Between dynamic and simplified fees, a dynamic fee would better reflect the costs associated with fund purchases or redemptions on a given day. A simplified fee, however, would be less costly to implement because, among other things, it would not necessarily require a hard close or any alternatives to the hard close to provide actual or estimated flow information. While a simplified fee would be less sensitive to the fluctuating costs associated with fund purchases or redemptions, this fee would aid in the offset of costs stemming from purchase and redemption activity and could assist with the mitigation of investor dilution.

On balance, we are proposing a swing pricing requirement because it may have operational advantages or be better tailored to mitigate dilution relative to liquidity fee options, but we request comment on using a liquidity fee framework to impose liquidity costs and whether a liquidity fee alternative may have fewer operational or other burdens than the proposed swing pricing requirement while still achieving the same overall goals of reducing shareholder dilution.

133. How do the operational implications of swing pricing, as proposed, differ from the operational implications of a dynamic liquidity fee framework (*e.g.*, one where

liquidity fees vary in size and increase during periods of stress)? What are the operational implications of a requirement for mutual funds to impose a liquidity fee that can change in size and that may need to be applied with some frequency (up to daily)? Are fund intermediaries equipped to apply dynamic fees on a regular basis? Would funds have insight into whether and how intermediaries apply these fees to redeeming investors?

134. If we adopt a liquidity fee framework instead of a swing pricing framework, should a fund be required to apply a liquidity fee under the same circumstances in which a fund would be required to adjust its net asset value under the proposed swing pricing requirement? Should a fund be required to use the same approach to calculating a liquidity fee as the proposed approach to calculating a swing factor? Should the same board oversight framework apply under this approach as the proposed swing pricing requirement (*e.g.*, with the board approving the fund's liquidity fee policies and procedures and designating a liquidity fee administrator, and such administrator would report periodically to the board)?
135. Should funds be required to apply liquidity fees to all redemption or purchase orders, or should liquidity fees apply only upon a trigger event? If so, under what circumstances should a fee apply? For example, should liquidity fees apply when trading costs are materially increasing?²⁵⁶ Should liquidity fees apply when a fund has had net outflows over multiple consecutive days? If so, should net outflows be of a certain size (*e.g.*, 2%, 5%, or 10%) and over what period of time should net outflows trigger a fee (*e.g.*, 2, 3, or 4 consecutive days)? Would this approach help mitigate

²⁵⁶ See *infra* section II.D.3.b. for additional discussion and requests for comment about such an approach.

dilution, or would it contribute to first-mover advantages and potentially result in unfair application of fees?

136. Should a liquidity fee apply to both purchasing and redeeming investors?

Alternatively, should a liquidity fee apply to redeeming investors only or to purchasing investors only?

137. Should funds be required to maintain records related to the application of liquidity fees? For example, should funds be required to maintain records of the dates on which the fund applied liquidity fees and in what amount? If application of liquidity fees is subject to fund or board discretion, should a fund be required to maintain records documenting why the fund did or did not apply liquidity fees under certain circumstances?

138. Should liquidity fees apply to purchase or redemption orders of a specific size only? If so, what size? How operationally feasible would such an approach be? Would it create incentives for investors to modify their order amounts in an effort to avoid a fee, such as by holding smaller amounts of a fund's shares at multiple intermediaries or splitting up a purchase or sale order over multiple days? How should such an approach treat separate accounts managed by the same adviser, such as separate accounts managed through a wrap program?

139. Should a liquidity fee framework have an exclusion for purchase or redemption orders of a *de minimis* amount? How should we identify an order for a *de minimis* amount? Should it be a set dollar figure (*e.g.*, \$2,500 or less), a set percentage of the fund's net assets, or a set amount that would be collected from application of a fee

(e.g., \$50 or less)? Should the amount of a *de minimis* exclusion be adjusted for inflation over time?

140. How should the amount of the liquidity fee be determined? Should the liquidity fee be dynamic but based only on that day's spreads? Should it include other transaction costs, including market impact? Instead of a dynamic fee amount that could change daily, should the fee amount be based on a fund's historical trading costs and evaluated periodically, such as annually, quarterly, or monthly? Should the fee be a flat percentage established by rule (such as 0.5%, 1%, or 2%), or should the fee increase as net redemptions or net purchases, illiquidity, or other variables increase? Should the fee amount be based on reasonably expected transaction costs but, if a fund cannot reasonably estimate those costs, it can use a default fee amount set by rule? If so, what should that default fee amount be (e.g., 0.5%, 1%, 2%, or 3%)? Should the rule include a default fee amount that funds can always choose to use, with the option to use a higher or lower amount if such amount is determined to be in the best interest of the fund? Should there be a minimum or maximum fee amount, such as a 0.25% minimum or a 2% maximum?

141. If we adopt a liquidity fee framework instead of a swing pricing framework, are there any ways to simplify the application of fees to investors that invest through an intermediary, such as investors in an omnibus account, to facilitate funds or fund transfer agents applying fees directly to investor purchases or redemptions occurring through an omnibus account? For example, should fund intermediaries be required to separately submit purchase and redemption orders, rather than net them, in order to transact in a fund's shares? What would the operational consequences of such a

requirement be for fund intermediaries and for investors? To what extent do intermediaries already submit purchase and redemption orders separately, and does this practice vary by type of intermediary (for example, are broker-dealers more likely to submit separate purchase and redemption orders than retirement plan recordkeepers)? Would there be consequences for fund transfer agents, Fund/SERV, or others associated with increased order volume or other changes that would result from a requirement to submit purchase and redemption orders separately? What changes, if any, would funds or fund transfer agents need to make to be equipped to apply liquidity fees directly? If submission of purchase and redemption orders separately is necessary to implement a liquidity fee framework, is it necessary for the Commission to mandate receipt of orders in this way to ensure compliance by all market participants? If purchase and redemption orders may be submitted on a net basis, as some intermediaries do currently, how would a fund accrue for liquidity fees in a timely manner? Should the Commission require fund transfer agents to apply liquidity fees directly and, if so, why or why not?

142. If we adopt a dynamic liquidity fee framework, would it be as reliant on timely flow information as the proposed swing pricing requirement? For example, could funds and intermediaries apply a dynamic fee to a transacting investor after an order begins to be processed at that day's NAV but before the trade settles? Could dynamic fees be applied after settlement, or would that create challenges in collecting a fee from investors who redeemed the full amount of their holdings? If a fee applies on a delayed basis, how should investors be notified of the application of a fee? Would it be preferable to apply a simplified fee that may less accurately reflect the costs of

investor transactions and may mitigate dilution with less precision, but that could be applied at the same time an order is processed? Are there any other factors to consider when deciding between dynamic and simplified liquidity fees?

143. If we adopt a liquidity fee framework, should we require that the same liquidity fee amount apply to all share classes (for example, if a liquidity fee is 1% on a given day, the 1% fee must apply to all share classes)? Alternatively, should we permit the fee amount to differ among classes (for example, a 1% fee for one class and a 0.5% fee for another class) and, if so, why?

144. Should a liquidity fee apply differently based on the type of fund or the type of intermediary through which an investor trades? If so, what would be the basis for the differences in how a liquidity fee applies?

145. What investor flow information, if any, would be required to implement a liquidity fee alternative? To the extent that a liquidity fee alternative requires timely investor flow information, should the alternative be paired with the proposed hard close requirement? Are there different considerations or effects related to the proposed hard close requirement if we were to require funds to use a liquidity fee? Would it be effective to implement the liquidity fee alternative with an alternative to the hard close requirement discussed below, such as indicative flows, estimated flows, or delayed cut-off times for intermediaries?

146. Should a liquidity fee requirement be implemented through amendments to rule 22c-2 or through a new rule? To what extent would information that financial intermediaries agree to provide under a shareholder information agreement be

important for funds to receive under a liquidity fee framework?²⁵⁷ Is there other information funds would need to receive from financial intermediaries to determine that liquidity fees are appropriately applied? Should we amend the definition of shareholder information agreement to require that information, or are there other mechanisms for funds to receive that information (*e.g.*, distribution agreements)? Are there other rules we should amend if we adopt a liquidity fee requirement, such as rule 11a-3 under the Act, which permits application of certain fees in connection with an exchange offer notwithstanding section 11(a) of the Investment Company Act? If we amend rule 11a-3, should the rule treat a liquidity fee in the same way as a redemption fee, as defined in that rule?²⁵⁸

147. How should funds be required to disclose liquidity fees to investors? Should liquidity fees be reflected in the prospectus fee table, as mutual fund (other than money market fund) redemption fees currently are?²⁵⁹ Or, similar to money market fund liquidity fees, should liquidity fees be excluded from the prospectus fee table?²⁶⁰ Should funds be required to disclose the circumstances in which they would impose liquidity fees in the prospectus? If a liquidity fee only applies on some days, should the fund be required to disclose on its website that it is applying a liquidity fee that

²⁵⁷ See rule 22c-2(c)(5) (defining a shareholder information agreement as a written agreement under which a financial intermediary agrees, among other things, to provide certain information to a fund promptly upon request, including taxpayer identification number of all shareholders who have purchased, redeemed, transferred, or exchanged fund shares held through an account with the financial intermediary, and the amount and dates of such activity).

²⁵⁸ Under rule 11a-3, an offering company may cause a security holder to be charged a redemption fee in connection with an exchange offer, subject to certain conditions. See rule 11a-3(b)(2); rule 11a-3(a)(7) (defining a redemption fee as a fee that a fund imposes pursuant to rule 22c-2).

²⁵⁹ See Item 3 of Form N-1A.

²⁶⁰ See Instruction 2(b) to Item 3 of Form N-1A (excluding money market fund liquidity fees imposed in accordance with rule 2a-7 from the definition of “redemption fee”).

day and the size of the fee? Should funds be required to report information about liquidity fees that are imposed? For example, should a fund be required to report on Form N-PORT the dates the fund imposed liquidity fees (or the number of days on which fees were applied) and the amount of the fee applied on each occurrence? If a fund or its board has discretion on when to apply liquidity fees, should a fund be required to disclose why a liquidity fee was or was not imposed under certain circumstances? Should funds be required to report other information about liquidity fees or report information in other locations, such as in shareholder reports, on fund websites, or in Forms N-CEN or N-RN? Would any existing items on Form N-PORT, Form N-CEN, Form N-1A, Form N-RN, or other forms need to be modified if we were to adopt a liquidity fee framework instead of swing pricing?

148. How quickly do intermediaries currently remit to funds the amounts collected from purchase or redemption fees applied to customer accounts? If remittal currently is delayed, what are the causes of delay? If we adopted a liquidity fee, would funds reflect any delayed liquidity fee payment as an accrual? Under a liquidity fee approach, should intermediaries be required to remit payments to funds within a certain amount of time after a purchase or redemption? If so, what is an appropriate amount of time for remittal (*e.g.*, on the day of settlement or within one or two days after settlement)? For example, should we adopt a rule that would provide that a fund must prohibit an intermediary from purchasing the fund's shares in nominee name on behalf of others if the intermediary does not remit payment on a timely basis? Are there other appropriate consequences for an intermediary that has a pattern or practice of late payments, such as a requirement that orders from such an intermediary may

not receive today's price and will be executed on a subsequent day at that day's price in order to otherwise limit the dilutive effects of purchase and sale orders received through that intermediary since fees are not paid in a timely manner? Should we require a fund to charge an additional surcharge to an intermediary that does not remit payment on a timely basis? Should funds be required to report the names of intermediaries who are delayed in remitting payment and the amount due? If so, where should funds provide this information (for example, Form N-PORT, Form N-CEN, fund websites, or registration statements)?

149. Would a liquidity fee requirement have different effects on investor behavior than a swing pricing requirement? For example, because application of liquidity fees is more observable than application of swing pricing, would liquidity fees be more likely to affect investors' decisions of whether to purchase or redeem fund shares?

b. Dual Pricing

We also considered the use of dual pricing as an anti-dilution measure. A fund that uses dual pricing would quote two prices—one for incoming shareholders (reflecting the cost of buying portfolio securities in the market), and one for outgoing shareholders (reflecting the proceeds the fund would receive from selling portfolio securities in the market).²⁶¹ Dual pricing is permitted and used by some funds in certain foreign jurisdictions.²⁶² In comparison to swing pricing and liquidity fees, we believe that dual pricing may impose additional operational burdens and complexity on fund intermediaries, service providers, and other third parties as they

²⁶¹ See *Swing Pricing Adopting Release*, *supra* note 11, at n.40. Swing pricing would permit a fund to continue to transact using one price, as they do today (instead of transacting using separate prices for purchasing and redeeming shareholders).

²⁶² For example, jurisdictions that permit dual pricing include the UK, Ireland, Australia, and Hong Kong. See Jin, *et al*, *supra* note 163, at n.6 and accompanying text.

would need to handle two share prices on each trade date. We understand that mutual fund order processing systems currently are designed to accommodate only one price, which is applied both to trades and valuation, and a fund's share price feeds into many analyses that intermediaries, funds, or others would need to update if there were two share prices, such as rebalancing activity. In addition, as recognized above, there would be operational costs associated with intermediaries needing to submit purchase and redemption orders separately, rather than netting purchase and redemption orders.

In addition, with a dual pricing framework, we would also address effects on a fund's financial statements and performance reporting, as the Commission has already done for swing pricing.²⁶³ If we were to adopt a dual pricing framework, we could use the same general framework as in swing pricing. Under this approach, a fund would use its "GAAP" NAV (*i.e.*, the amount of net assets attributable to each share of capital stock outstanding at the close of the period) in its statement of assets and liabilities and in performance reporting, while it would use its two transaction prices in reporting the dollar amounts received for shares sold and paid for shares redeemed in its statement of changes in net assets and reflect the impact of dual pricing in the fund's financial highlights.

Similar to liquidity fees, dual pricing could be either dynamic (*e.g.*, calculated to reflect spread, other transaction costs, and market impact a fund is likely to incur to meet redemptions or invest the proceeds from subscriptions and based on the magnitude of those flows) or simplified (*e.g.*, a constant spread around a fund's NAV). Dynamic dual pricing generally would necessitate timely flow information, similar to the proposed swing pricing requirement. However, simplified dual pricing may not necessitate timely flow information. Between these

²⁶³ See Swing Pricing Adopting Release, *supra* note 11, at section II.A.3.g.

two types of dual pricing, a dynamic approach would better reflect the costs associated with the magnitude of fund purchases or redemptions on a given day. Under a simplified dual pricing framework, there also is the potential for either redeeming or subscribing investors to be overcharged for transaction costs that their investing activity does not trigger, because the fund would adjust its NAV for both subscribing and redeeming investors daily without regard to whether the fund has net inflows or net outflows on a given day. A simplified approach, however, would be less costly to implement because, among other things, it would not require a hard close or any alternatives to the hard close to provide actual or estimated flow information.

On balance, we are proposing a swing pricing requirement because it may have operational advantages over dual pricing. We request comment on using a dual pricing framework to impose liquidity costs on transacting shareholders and whether a dual pricing alternative may have fewer operational or other burdens than the proposed swing pricing requirement or a liquidity fee alternative while still achieving the same overall goals of reducing shareholder dilution.

150. How do the operational implications of swing pricing, as proposed, differ from the operational implications of dual pricing? As dual pricing involves calculating and applying two prices on each trade date, would that approach involve operational burdens and complexity for fund intermediaries, service providers, and other third parties that would not exist with a single price under our proposed swing pricing framework?

151. If we adopt a dual pricing framework instead of a swing pricing framework, how should the spread around the NAV be determined? For example, should the spread around the NAV be constant or calculated daily or at some other frequency to reflect

- transaction costs? If the latter, which transaction costs (*e.g.*, spread, other transaction costs, and market impact)? Under a dual pricing framework, would funds need the same investor flow information that is needed for swing pricing, or would implementation of dual pricing be less dependent on investor flow information?
152. Should a dual pricing requirement apply differently based on the type of fund or the type of intermediary through which an investor trades? If so, what would be the basis for the differences in how dual pricing applies?
153. If we adopt a dual pricing framework, should we address the effects of two transaction prices on a fund's financial statements and performance reporting in a manner similar to how the Commission has addressed the effects of swing pricing (*i.e.*, by clarifying that the GAAP NAV must be used in some cases, while transaction prices are used in others)? Are there additional implications of two transaction prices that we would need to address and that would lead to a different result than our current swing pricing approach?
154. Under a dual pricing framework, which value of the fund's shares would market participants use for analyses that currently are based on a fund's NAV, such as rebalancing a client's holdings of different funds to achieve a desired asset allocation or reflecting the value of an investor's holdings on an account statement? If we adopt dual pricing, should we provide guidance on which value to use for these or other purposes?
155. Are there differences between liquidity fees and dual pricing that make one a better framework than the other to address dilution? If so, what are the differences and why is one better than the other (*e.g.*, differences in tax treatment, if any)?

156. What investor flow information, if any, would be required to implement a dual pricing alternative? To the extent that a dual pricing alternative requires timely investor flow information, should the alternative be paired with the proposed hard close requirement? Are there different considerations or effects related to the proposed hard close requirement if we were to require funds to use dual pricing? Would it be effective to implement the dual pricing alternative with an alternative to the hard close requirement discussed below, such as indicative flows, estimated flows, or delayed cut-off times for intermediaries?
157. If we adopt a dual pricing framework, what other changes should be made to the proposal as a result? For example, what reporting should be required on Form N-PORT, Form N-CEN, Form N-1A, Form N-RN, or other forms used by funds that would be subject to the framework? Would any existing reporting items on these or other forms need to be modified if we were to adopt a dual pricing framework instead of swing pricing? Are there other rules (*e.g.*, rule 11a-3 under the Act) that would require changes if we adopt an alternative framework?
158. Would a dual pricing framework affect investor behavior differently than a swing pricing framework or a liquidity fee framework?

2. Alternatives to a Hard Close

We are proposing to require a hard close for open-end funds that are subject to the proposed swing pricing requirement. Under this proposal an eligible order to purchase or redeem any redeemable security of such a fund would be executed at the current day's price only if the fund, its designated transfer agent, or a registered clearing agency receives the order before the

fund calculates its NAV. This proposal is designed to facilitate the operation of swing pricing as well as to help prevent late trading and to modernize order processing.

In connection with the swing pricing proposal, we have also considered whether there are alternative methods by which a fund would be able to generate sufficient investor flow information to determine whether to apply swing pricing on a given day. As discussed above, swing pricing requires that funds have significant information about their order flows to determine with accuracy if the fund should impose a swing factor and to determine what that swing factor should be. Instead of requiring that funds operationalize swing pricing based on actual order flow information received before the pricing time, we have also considered whether reasonable estimates, calculated by either the fund or the intermediary, would provide sufficiently accurate information for a swing pricing determination. We have also considered whether later cut-off times for flow information and the publication of the day's NAV would facilitate swing pricing. We discuss each alternative below. We also considered how these alternatives would work if, rather than require swing pricing, we were to require funds to adopt liquidity fees or dual pricing.²⁶⁴ Although the below discussion focuses on swing pricing, we believe similar considerations would apply in the case of liquidity fees or dual pricing (to the extent a liquidity fee or dual pricing regime, like swing pricing, was based on the amount of net flows), and these alternatives therefore also could be used in combination with a liquidity fee or dual pricing approach.²⁶⁵

²⁶⁴ See *supra* section II.D.1.

²⁶⁵ We provide additional illustrative examples of potential alternatives and pairings in section II.D.3.

a. Indicative Flows

We considered whether, instead of requiring a hard close, we should require that funds receive indicative flow information from intermediaries by an established time. This approach would require that intermediaries (*e.g.*, broker-dealers, banks, and retirement plan recordkeepers) calculate an estimate for what they anticipate the given flows for a particular day to be either before the fund's pricing time or a set time thereafter (*e.g.*, by 4:30 p.m. ET or 5 p.m. ET). Consistent with current practices, intermediaries could submit final order flow information after the pricing time once the intermediary has received and calculated the final flows for the day. For example, we could consider orders to be eligible to receive that day's price if, in the case of orders submitted through an intermediary: (1) the intermediary receives the orders from investors before 4 p.m. ET; (2) the intermediary provides estimated order flow to the fund by the identified time; and (3) the intermediary provides final order information by the next morning. Under this approach, a fund would be permitted to use the indicative flow information provided by intermediaries to determine whether a swing factor should be applied to that day's NAV.

In order to calculate the indicative flow information, intermediaries would need to generate an estimated flow based on, among other things, the actual flows that they have received before the pricing time and the prior day's price, as well as any indicative historical information that is available if the indicative flow information is provided to the fund before the pricing time. Alternatively, the intermediary could provide summary net flow information (for example, estimated net purchases of \$3 million, estimated net redemptions of 250,000 shares, and the purchase of an unknown quantity of fund shares with proceeds from redeeming 100 shares from a different identified fund), and the fund could apply the prior day's NAV to arrive at an estimated net flow. Intermediaries would need to update their systems and processes to

calculate indicative flow information by or shortly after the pricing time while continuing to provide actual final flow information as it is available. We understand that different intermediaries may, based on their different characteristics, use different methods to calculate or provide their indicative flows. A broker-dealer and a retirement plan recordkeeper would not necessarily use the same method due to the differences in how they are able to generate and communicate flow information to funds. Retirement plan recordkeepers, for example, would need to generate indicative flow information that accounts for not only purchase and redemption activity that is a known number of shares or dollars as of the pricing time, but also estimated loan and withdrawal activity that is subject to hierarchy provisions under their specific plans. If an intermediary is unable to provide indicative flow information by the identified time, the orders would receive the next day's price.

Unlike the proposed hard close requirement, the alternative of permitting funds to rely on indicative flows provided by intermediaries would provide intermediaries with more flexibility in providing final flow information. Thus, the broader changes that may be needed for intermediaries to comply with the proposed hard close requirement that are discussed above may not be needed under this alternative. This approach would not ultimately provide funds with the most accurate information about anticipated flows. If intermediaries are required to provide indicative flows before a fund's pricing time, the flow information may be less reliable, particularly during times of stress since intermediaries may not be able to account for or anticipate the effects of a stress event on order flow information. This limitation of indicative flow information may create down-stream effects on the accuracy and efficacy of swing pricing, particularly in times of stress. For swing pricing to serve the goal of mitigating dilution of shareholders' interests, funds need accurate order flow information, particularly in times of

stress. In addition, an approach based on indicative flows would be less effective at preventing late trading and at reducing operational risk through improvements to order processing.

We request comment on the indicative flow alternative, including:

159. Should we allow funds to use indicative flow information to determine whether or not to apply swing pricing?

160. If intermediaries are required to provide indicative flows to funds, should the rule establish this requirement by considering an order as eligible to receive a given day's price only if the intermediary provides indicative or final order flow information by an identified time and provides final order information by a later identified time?

Should we instead provide that a fund must prohibit an intermediary from purchasing the fund's shares in nominee name on behalf of others if the intermediary does not provide timely indicative flow information? Should the rule require that funds enter into a contractual agreement with intermediaries to require the indicative flow information? If so, should this contract be required to specify how indicative flows are calculated by the intermediary? In either case, should we prohibit or restrict an intermediary from charging fees to funds for the costs associated with providing indicative flow information?

161. Would intermediaries have sufficient incentives to provide timely and accurate indicative flow information? Are there other consequences we should impose for late or materially inaccurate indicative flow information? For example, if an intermediary has a pattern of providing late or inaccurate information, should we require a fund to prohibit the intermediary from purchasing the fund's shares in nominee name on behalf of others? As another alternative, should we prohibit orders received from that

intermediary from receiving that day's price and instead require that the orders be executed and settled on a delayed basis at a future day's price, in order to limit the dilutive effects of orders that intermediary submits?

162. When should intermediaries be required to provide indicative flows under this alternative? Are indicative flows needed before the pricing time, or could funds still make timely swing pricing decisions if intermediaries provided indicative flows after the pricing time? How long after the pricing time could funds receive the indicative flow information and still make timely swing pricing decisions? In connection with this approach, would funds publish their prices later than they do today to provide additional time to make swing pricing decisions?
163. Should the intermediary or the fund apply the prior day's price to arrive at an indicative flow estimate? Is there value in the fund performing this calculation because it would have better information about potential changes to the prior day's price that it could take into account (*e.g.*, the size of any swing factor adjustment made on the prior day, as well as potential changes to the value of its portfolio holdings)?
164. Should intermediaries that have minimal holdings with the fund be permitted not to provide indicative flows under this approach? If so, how should we define intermediaries that have minimal holdings of fund shares? How would this approach work if an intermediary's customers began to transact in higher volumes of the fund's shares?
165. Should we provide fund managers a safe harbor from liability under certain circumstances (*e.g.*, absent knowing or reckless behavior) if the fund relies on

- indicative flows to determine whether to swing the fund's NAV and the size of the swing factor and those indicative flows do not align with the actual flows the fund ultimately receives? From what statutory provisions or rules should any safe harbor provide relief (for example, section 34(b) under the Investment Company Act, rule 22c-1, or other provisions and rules)?
166. If we adopt an indicative flows approach, are there any changes we should make to the proposed swing pricing requirement? For example, instead of requiring use of "reasonable, high confidence" estimates of investor flow information, should we use a different standard (*e.g.*, reasonable estimates based on available information)?
167. Do commenters agree with the discussion of the potential benefits, costs, or drawbacks of this alternative? During times of stress, would intermediaries be able to generate accurate indicative flow information?
168. Does this alternative raise different considerations if we were to require funds to use a liquidity fee framework or dual pricing, rather than swing pricing? Should an indicative flows approach operate or be structured differently if paired with a liquidity fee or dual pricing requirement and, if so, how?
169. Is there information about the indicative flows alternative, if adopted, that would be important for investors to understand and that funds should be required to disclose in their registration statements or elsewhere?

b. Estimated Flows

We also considered an approach that would allow funds to estimate their flows for the day for the purposes of determining whether to apply a swing factor to the day's NAV and the amount of the swing factor (*e.g.*, whether the amount of net redemptions exceeds the market

impact threshold). In order to estimate flows for a given day, funds could generate models that incorporate the information available to them. For example, funds could use the flow information that they have already received by a pre-established time as well as historical order flow information in order to estimate expected flows for the day.

The ability of a fund to estimate flow information may differ based on the types and number of intermediaries from which the fund is ultimately receiving flow information. In order to estimate flows, funds may rely on factors that include the historical pattern of flows for a particular intermediary while accounting for any observed changes in the flows for a given fund. This estimate could be based on all of the information received by the fund by a set time, with additional adjustments to account for flows from intermediaries that do not submit orders by that time. For example the fund could base its estimate on all information that it has received by 5 p.m. ET. For some intermediaries, however, like retirement plan recordkeepers, funds would likely need to create models that are able to project estimated flow information based on historical order flow information as retirement plan recordkeepers may not have sufficient information available by the time established by the fund. In addition, to the extent funds do not already receive large trade notifications, funds may determine to negotiate arrangements with intermediaries for receipt of advance notice of certain large transactions that are known in advance by intermediaries, such as replacing a fund as an investment option in a retirement plan.

The considerations for whether estimates generated by the fund provide sufficiently reliable information to implement swing pricing are similar to those discussed above for the alternative for indicative flows from intermediaries. Funds have a narrower view of anticipated flow activity than intermediaries, however, as intermediaries are closer to investor activity and likely have a more accurate estimate of their customers' flows for a particular fund. This benefit

of indicative flows over estimated flows may be mitigated to the extent that intermediaries lack incentives or are otherwise unable to provide reasonably accurate indicative flows. During times of stress, funds may have a limited view of anticipated order flow information, which may impact their ability to effectively implement swing pricing. In addition, an approach based on estimated flows would be less effective at preventing late trading and at reducing operational risk through improvements to order processing than the proposed hard close requirement. On the other hand, estimated flows would be less costly than either a hard close or indicative flows.

We request comment on the estimated flow alternative, including:

170. How accurately can funds estimate flows from different intermediaries? For example, are retirement plan flows relatively stable and predictable, or do they vary over different periods? To what extent do retirement plans inform funds in advance of material flows that deviate from historical patterns, such as changes in funds the plan offers? Would funds receiving flows from specific intermediaries be better able to estimate their flows? For example, would it be easier for funds to estimate flows from broker-dealers because broker-dealers tend to be able to provide order flow earlier than some other intermediaries? Would it be easier for funds to estimate flows from retirement plan recordkeepers because those flows are more predictable? To the extent that certain events make flows less predictable, such as changes in the funds a retirement plan offers to its participants, could funds better estimate their flows if intermediaries were required to provide advance notice or other information about these events?
171. Should we provide fund managers a safe harbor from liability under certain circumstances (*e.g.*, absent knowing or reckless behavior) if the fund relies on

- estimated flows to determine whether to swing the fund's NAV and the size of the swing factor and those estimated flows do not align with the actual flows the fund ultimately receives? From what statutory provisions or rules should any safe harbor provide relief (for example, section 34(b) under the Investment Company Act, rule 22c-1, or other provisions and rules)?
172. Should we require funds to conduct back-testing of estimated flows using final data to refine their estimation process over time and help ensure that estimates used for swing pricing are reasonable?
173. Would funds be able to implement swing pricing based on estimated flow information? If we adopt an estimated flows approach, are there any changes we should make to the proposed swing pricing requirement? For example, instead of requiring use of "reasonable, high confidence" estimates of investor flow information, should we use a different standard (*e.g.*, reasonable estimates based on available information)?
174. Does this alternative raise different considerations if we were to require funds to use a liquidity fee framework or dual pricing, rather than swing pricing? Should an estimated flows approach operate or be structured differently if paired with a liquidity fee or dual pricing requirement and, if so, how?
175. Is there information about the estimated flows alternative, if adopted, that would be important for investors to understand and that funds should be required to disclose in their registration statements or elsewhere?
176. To what extent would the estimated flows alternative reduce costs on funds and intermediaries relative to the proposed hard close?

c. Later Cut-Off Times for Intermediaries

We have considered whether establishing later cut-off times for intermediaries to submit order flow information would lessen the burden on intermediaries to comply with the proposed hard close requirement while continuing to give funds the necessary order flow information to implement swing pricing. Under this alternative, investors would continue to need to submit orders before the fund's pricing time to be eligible to receive that day's price, but intermediaries would have additional time to provide those orders to a designated party after the pricing time, such as by 6 or 7 p.m. ET for a fund with a 4 p.m. ET pricing time. To provide time to assess the flows and determine whether to apply swing pricing, a fund might push the time of publication of its price to a later time, such as 8 to 10 p.m. ET. Much like the proposed hard close, this alternative may have additional benefits beyond facilitating swing pricing. Ensuring that all order flow information is provided to a designated party earlier than it is currently may improve order processing. This alternative would be less effective, however, at preventing late trading.

Allowing intermediaries more time to provide order flow information and delaying publication of the NAV would involve many of the systems costs discussed in connection with the hard close. For example, intermediaries would still need to transmit orders before the NAV is available. However, providing intermediaries and funds more time to compile order flow information and to calculate the price may lessen the overall burden of the proposed changes, and may reduce the need for intermediaries to establish cut-off times prior to the fund's pricing time for receipt of investor orders.

We request comment on the alternative of later cut-off times for intermediaries, including:

177. What would an appropriate delayed cut-off time be (*e.g.*, two or three hours after the fund's pricing time)? Would a delayed cut-off time, in combination with a delayed price publication, provide funds with sufficient time to make swing pricing decisions?
178. If funds were to delay the publication of their price, what steps would funds need to take? Would they need to amend agreements with intermediaries? What effects would a delayed publication time have on intermediaries or other parties?
179. Would a delayed cut-off time for intermediaries to submit orders to a designated party be less burdensome than the proposed hard close? Would a delayed price publication time be less burdensome than the proposed hard close?
180. Would funds be able to implement swing pricing if we require later cut-off times for intermediaries instead of the proposed hard close? If we adopt a later cut-off time approach, are there any changes we should make to the proposed swing pricing requirement? For example, instead of requiring use of "reasonable, high confidence" estimates of investor flow information, should we use a different standard (*e.g.*, reasonable estimates based on available information)?
181. Does this alternative raise different considerations if we were to require funds to use a liquidity fee framework or dual pricing, rather than swing pricing? Should a later cut-off time approach operate or be structured differently if paired with a liquidity fee or dual pricing requirement and, if so, how?
182. Is there information about the later cut-off times alternative, if adopted, that would be important for investors to understand and that funds should be required to disclose in their registration statements or elsewhere?

3. Additional Illustrative Examples

While there are many potential combinations of swing pricing and hard close alternatives, several of which we have already discussed in this release, this section provides additional illustrative examples of alternatives to the proposed swing pricing and hard close requirements that are designed to reduce shareholder dilution. The alternatives discussed in this section are intended to have lower operational costs than the proposed requirements, although the reduction in costs involves other trade-offs, as discussed below.

a. Spread Cost Adjustment on Days with Estimated Net Outflows

Spread costs can be a major component of a fund's swing factor. Instead of the proposed swing pricing and hard close requirements, we could require a simplified version of swing pricing in which funds adjust their current NAVs to reflect good faith estimates of spread costs on days the fund reasonably expects to have net redemptions based on estimated flows. Under this approach, if a fund determined its NAV based on the midpoint of each investment's bid-ask spread, on days of estimated net redemptions the fund would swing its transaction price down by an amount designed to reflect spread costs in the portfolio. The adjustment would be based on good faith estimates of spread costs, consistent with the proposed swing pricing requirement. As with the swing factor under the proposal, the estimated spread costs could be determined periodically, as long as significant market developments or other developments that affect the good faith estimate of spread costs prompt a quicker reevaluation.²⁶⁶ If the fund already uses bid

²⁶⁶ This approach would not require a fund to use bid prices to value each of its investments when determining its NAV. Instead, as appropriate, a fund could continue to value its investments using the midpoint to determine its NAV and, on days of estimated net outflows, the fund would be required to reduce the fund's transaction price based on good faith estimates of spread costs.

prices for valuation purposes, it would not be required to adjust its current NAV to reflect spread costs.²⁶⁷

This approach would be designed to mitigate dilution from spread costs associated with selling investments to meet redemptions. The reflection of costs would be dynamic when a fund expects net outflows, with the adjustment to reduce a fund's transaction price increasing in size as spreads widen during times of stress. A fund would need to estimate the direction of flows (*i.e.*, net redemptions or net purchases) based on available information before the fund publishes its price, but the fund would not need to estimate the size of net flows. A fund's reasonable expectation of the direction of fund flows may be based on different types of information, depending on the fund. For example, a fund could consider indicative flow information from intermediaries, trends in orders submitted that day, general market intelligence, or historical trends in flows.

This approach would impose lower operational burdens and costs relative to the proposal, including by not necessitating a hard close and by simplifying the analysis of a swing factor. At the same time, the approach would address dilution less fully than the proposal. Unlike the proposed swing pricing requirement, this approach would not capture market impact or other costs of selling investments to meet redemptions. For one, a fund could not assess market impact without an estimate of the size of net flows and, without a hard close, estimating the size of net flows with accuracy would be subject to a greater risk of error than estimating only the direction of flows. In addition, as previously discussed, there may be operational challenges and complexities to estimating market impact costs more generally. Another difference from the

²⁶⁷ See *supra* note 202 (discussing accounting standards that state that the price within the bid-ask spread that is most representative of fair value in the circumstances shall be used to measure fair value and that provide that use of bid prices is permitted for these purposes, as well as use of mid-market pricing as a practical expedient).

proposed swing pricing requirement is that this approach would not address dilution from sizeable net purchases. Because smaller levels of net purchases are less likely to result in dilution than net redemptions (as funds have more time to invest the proceeds from net purchases than to sell investments to meet redemptions), it may not be appropriate to require a fund to adjust its current NAV to reflect spread costs on any day it estimates net purchases. For this reason, we have a net inflow swing threshold of 2% in the proposal and, as with the potential inclusion of market impact in this framework, estimating the size of net flows involves a greater risk of error than estimating only the direction of net flows.

In addition to other requests for comment related to variations of swing pricing and estimation of flows, we request comment on requiring a fund to adjust its current NAV to reflect good faith estimates of spread costs on days the fund reasonably expects to have net redemptions, instead of requiring the proposed version of swing pricing and a hard close.

183. Would this approach reduce operational burdens and costs relative to the proposed swing pricing and hard close requirements? Would this approach reduce operational burdens and costs relative to the liquidity fee alternative? Would this approach reduce operational burdens and costs relative to the dual pricing alternative? How effective would this approach be in addressing dilution? To what extent would this approach protect non-transacting investors from dilution due to the bid-ask spread costs and ameliorate any first-mover advantage? Would the effectiveness of the tool vary between normal and stressed market conditions? Should this approach also reflect transaction costs in addition to spreads, for example, commissions, markups, and/or markdowns?

184. How accurately can funds estimate the direction of daily net flows? Should the requirement apply on days the fund reasonably expects to have net redemptions (such that the fund uses this approach only if it affirmatively expects net redemptions) or on days the fund does not reasonably expect to have net purchases (such that the fund defaults to this approach unless it affirmatively expects net purchases)?
185. To what extent do funds already value their portfolio investments using bid prices? What consequences, if any, would a requirement to reflect good faith estimates of spread costs when a fund reasonably expects to have net redemptions have on these funds?
186. Would this approach incentivize funds to value their portfolio investments using bid prices without properly evaluating whether the bid price is most representative of fair value in the circumstances, in order to avoid the need to determine whether the fund reasonably expects net redemptions each day?
187. If we adopt this approach, how should we amend disclosure and reporting requirements? For example, if we required funds to use this simplified version of swing pricing, should current prospectus and financial statement reporting requirements for swing pricing apply? Should we require funds to report the frequency and amount of adjustments made to their current NAVs under this approach? Should a fund be required to report both its current NAV and its adjusted price? Should a fund be required to report information about the accuracy of its estimates of flow information? Where should any such information be located (*e.g.*, Form N-PORT, fund websites, annual and semi-annual reports)?

b. Liquidity Fee When Trading Costs Are Significant

Another alternative we considered is a liquidity fee that would apply only on days when a fund anticipates significant trading costs. A rule could either define the trigger or require funds to establish policies and procedures that identify their own fund-specific triggers. In terms of establishing the trigger, one alternative would be a trading cost trigger that the fund sets in advance or that the Commission establishes by rule (for example, with a set size, a set increase, or a set standard deviation in trading costs based on criteria such as spreads or transaction volumes for the fund's portfolio, either in terms of dollars or as a percentage of the fund's portfolio). As another alternative, the trigger for applying a liquidity fee could include other factors that indicate an increase in trading costs, such as increasing net flows (*e.g.*, based on the fund's flow history or estimated flows) or decreasing liquidity (*e.g.*, based on declines in the percentage of the fund's investments classified as highly liquid, or increases in the percentage of investments classified as illiquid). A fund's trigger for applying liquidity fees could be required to be made public or kept non-public.

As one example of a policies and procedures based approach, a fund could be required to establish written policies and procedures that would define the trigger event(s) that would cause a fund to apply a fee. The fund's policies and procedures would be required to be designed to mitigate dilution and recoup the costs the fund reasonably expects to incur as a result of shareholder redemptions on days when trading costs are higher. Funds would have discretion to define their own trigger events, but all funds would be required to consider certain identified factors, such as trading costs, liquidity of the fund's portfolio, market conditions, and reasonably estimated investor flows, in determining their trigger events.²⁶⁸

²⁶⁸ Consideration of expected investor flows would not require a fund to estimate the size of expected flows with accuracy. Rather, this consideration would be intended to recognize the

There are several alternatives for setting a fee amount. For instance, the fund could either base the fee amount on reasonable estimates of expected transaction costs, including market impact, or if the fund determined this estimation is not feasible, the fund could establish a set fee amount, or graduated fee levels, it would apply when a trigger event occurs. The rule could either allow a fund to determine that estimating transaction cost amounts is not feasible in advance, or the rule could require a fund to consider its ability to estimate transaction costs each time a liquidity fee applies. Under another possible approach, the rule could establish a default fee amount, such as 1%, that a fund could opt out of or adjust if determined to be in the best interest of the fund.

With respect to board oversight, if fee triggers or amounts were determined based on written policies and procedures, we could require board approval of the policies and procedures defining a fund's trigger event or identifying how to determine a fee amount, as well as any material changes to those policies and procedures. As for determining when a trigger event occurs and the amount of the fee, similar to the proposed swing pricing requirement, we could allow a liquidity fee administrator approved by the board to make some or all of these determinations.

If designed incorrectly, a fee that only applies when trading costs are significant could incentivize investors to redeem if investors can observe in advance that a fee is likely to apply in the near future. There are various mechanisms we could use to reduce these incentives. For one, if the rule identified specific trigger events that all funds would use, in that case, the potential for preemptive redemptions would be reduced if investors or other market participants could not

potential relevance of flows, to the extent a fund has sufficient information to reasonably estimate them. Moreover, if a fund anticipates a significant increase in costs of selling its investments but does not expect to need to sell investments due to an anticipation of net inflows, this approach would not require a fund to impose a fee.

observe with certainty if a fund is nearing a trigger event. Another approach would be to identify specific thresholds for triggering a fee in the rule and allow a fund to choose to use one or more of those thresholds to determine when to apply a fee. If funds determined their own fee triggers, the rule could provide that a fund's trigger event would be either public or nonpublic. Public disclosure of a fund's trigger for applying liquidity fees would increase transparency. The rule could require, however, that the fund's trigger event be kept nonpublic in order to reduce the potential for preemptive redemptions. Under this approach, a fund would not disclose its defined trigger event, and instead would be required to disclose in its prospectus that it applies a liquidity fee on days its trading costs increase, as well as how it determines the amount of the fee. A fund could be required to report information about how frequently it applied a liquidity fee and the amount of each fee on Form N-PORT.

Unlike the proposed swing pricing requirement, this approach would not address smaller levels of dilution that may occur in the normal course. Instead, it would be designed to focus on periods where funds have heightened dilution risk, such as in stress events. In addition, this approach would not address dilution that may occur from net purchases.

In addition to other requests for comment related to liquidity fee alternatives, we request comment on whether we should require a fund to apply liquidity fees only on days when a fund anticipates significant trading costs, instead of requiring swing pricing and a hard close.

188. Should a fund be required to apply a liquidity fee only when trading costs are significantly increasing, such as a period of stress? If so, should the rule identify a trigger when fees apply, or should funds establish their own trigger events?

189. If the rule establishes a trigger, what should that trigger be based on? For example, should the rule require a fund to apply a liquidity fee when spreads are

widening or transaction volumes for the portfolio increase? For instance, should fees be required when spreads widen beyond a 95% confidence level for key components of the fund's portfolio, where the mean and standard deviation of these key markets are measured for the trailing 252 business days (the average number of trading days in a year), and the trigger occurs if the current spread is greater than 1.65 standard deviations (*i.e.*, the equivalent of a 95% confidence in a normal distribution) above the mean for that period? Should different confidence levels, standard deviations, or measurement periods be used? Should a liquidity fee trigger be based on an increase in the transaction volume of the fund's portfolio, such as a trigger when the dollar- or percentage-based transaction volume for that day exceeds the 95% confidence level compared to the average daily transaction volume for the trailing 252 business days? Should different confidence levels or measurement periods be used? Do funds already track information that would allow them to identify readily when a trigger based on widening spreads or increased dollar transaction volume is crossed, or would they need to collect or monitor additional information about spreads or transaction volumes? Should the rule use other or additional triggers? For example, should a trigger be based on or consider large net outflows or a reasonable expectation of large net outflows above a certain percentage, such as net redemptions above 1% or 2% of net assets or net redemptions that are higher than typical for the individual fund based on historical flows? If the rule included a numerical threshold for net redemptions, would funds have concerns about their ability to accurately estimate net flow amounts and therefore be less likely to apply fees? If so, would a safe harbor address these concerns? Should a trigger be based on or consider an identified change in the fund's

- liquidity classifications, such as an identified decrease in the percentage of highly liquid investments the fund holds or an identified increase in the percentage of illiquid investments the fund holds? Should identification of a trigger event account for indicators of market stress in the financial markets overall or in the specific markets in which the fund invests? If so, what indicators of market stress should the rule include? Should the rule identify multiple potential triggers and allow funds to choose whether to use one or more of those triggers to determine when to apply a fee?
190. Instead of identifying specific trigger points by rule, should we require funds to establish and implement policies and procedures that describe when the fund will impose a fee? Would a policies and procedures approach allow funds to tailor the application of a fee to scenarios in which transacting investors are likely to cause dilution? Under a policies and procedures approach, should we identify the factors a fund must consider in defining its trigger events? If so, what factors should we require a fund to consider (*e.g.*, trading costs, liquidity of the fund's portfolio, market conditions, and reasonably estimated investor flows)? Rather than require funds to consider these factors, should we require funds to define their trigger events with respect to these or other specific factors?
191. Should we permit a fund not to apply a fee upon the occurrence of a defined trigger event? For example, should a fund be required to apply a fee when a trigger event occurs, unless the board determines that it is not in the interest of the fund to apply a fee in the specific circumstance?
192. What risks are associated with requiring a fund to define its own trigger event, and how could we reduce these risks? Would funds define a trigger event such that a

fund would be delayed in determining that a fee should apply relative to potentially fast-moving changes in market conditions? If so, would this delay increase the potential for preemptive redemptions and contribute to a first-mover advantage?

Would funds define a trigger event in a way that makes it unlikely that a fund would ever apply a fee? Are there ways to ensure that funds' policies and procedures are sufficiently robust, such as requirements to report the policies and procedures to the Commission or to report when a fund applied a fee? For example, should funds be required to confidentially report their trigger events to the Commission and to report how frequently fees applied and in what amounts on Form N-PORT?

193. Should liquidity fees apply only to redemptions if a trigger event occurs? Or should liquidity fees apply to both redemptions and purchases under this approach? Should a single trigger event result in fees applying to both redemptions and purchases, or should funds establish trigger events that differ between redemptions and purchases?

194. How should the amount of a liquidity fee be determined under this approach? Should the rule set a specified fee amount that would occur upon any fund's trigger event, such as 0.5%, 1%, or 2%? Should any fee amount set by rule be a default amount, such that a fund could use a higher or lower fee amount if determined to be in the best interest of the fund? Should funds be required to calculate the amount of the fee based on reasonable estimates of expected transaction costs, including market impact? Should fund policies and procedures, or a rule, establish a set fee amount that would apply if a fund is unable to reasonably estimate expected transaction costs? Should funds be required to consider their ability to reasonably estimate transaction

costs each time a trigger event applies, or should funds be able to determine in advance that estimation is not feasible and opt to use a set or graduated fee for all trigger events? Should fund policies and procedures, or a rule, establish graduated fee levels that would apply for different trigger events? Should we establish a limit on the size of a liquidity fee under this approach (*e.g.*, 2%, 3%, or 5%)?

195. After a fee is triggered, how should the rule permit or require a fund to determine when it should no longer apply a fee? For instance, should a fund reassess daily whether trading costs have decreased, or should a liquidity fee remain in place for a set number of days (*e.g.*, 2 to 5 days) and then no longer apply unless the fund determines a fee continues to be in the best interest of the fund?

196. What information should funds be required to disclose in their prospectuses under this approach? How much detail should funds be required to provide about when they will impose a liquidity fee? Should the prospectus state only that a fund will impose a fee when trading costs increase, or should the prospectus also discuss the factors a fund considers to make this determination? Should a fund be required to disclose its trigger events in its prospectus? Would that disclosure contribute to potential preemptive redemptions, or would trigger events be difficult to observe publicly in advance? Should funds be required to disclose fee amounts in their prospectuses, or their methods for calculating fee amounts?

197. Should the fund's board be required to approve the fund's written policies and procedures defining the trigger event(s) and how the fund will determine the amount of the fee? Should the board be required to approve any material changes to the policies and procedures? Should other board oversight be required? Should the board

have to determine that a fee is appropriate every time a trigger event occurs before the fund can impose a fee? Or should the board be required to designate a liquidity fee administrator that would be responsible for determining when liquidity fees apply and the size of the fee? Should the definition of a liquidity fee administrator mirror the proposed definition of a swing pricing administrator? If not, what changes should be made? Similar to the proposed swing pricing requirement, should a liquidity fee administrator be required to provide periodic reports to the board (at least annually) that describe: (1) the administrator's review of the adequacy of the policies and procedures identifying the fund's trigger event and the effectiveness of their implementation, including the effectiveness in mitigating dilution; (2) any material changes to the liquidity fee policies and procedures since the date of the last report (if such material changes are not subject to board approval); and (3) the administrator's review and assessment of the fund's method for determining the size of the liquidity fee?

198. What are the operational implications of this approach for funds and intermediaries? Would intermediaries be able to apply a liquidity fee on the same day the fund announces its imposition? What effects would this approach have on investors?
199. If liquidity fees are only applied rarely under this approach, how would that affect fund and intermediary preparedness for imposing fees? Would it increase investor sensitivity to fees and increase the likelihood of preemptive redemptions?
200. Should we pair a requirement to adjust a fund's current NAV to reflect spread costs on days the fund estimates it will have net redemptions with a requirement to

apply a liquidity fee when trading costs increase? Would this combined framework address dilution from net redemptions in a manner similar to the proposed swing pricing requirement without the costs of a hard close?

E. Reporting Requirements

1. Amendments to Form N-PORT

Registered management investment companies and ETFs organized as unit investment trusts are required to file periodic reports on Form N-PORT about their portfolios and each of their portfolio holdings as of month-end.²⁶⁹ While the reports provide monthly information to the Commission, funds file these reports on a quarterly basis with a 60-day delay, and the public only has access to information for the third month of each quarter. We are proposing to require reports on Form N-PORT to be filed within 30 days of month-end, which would be followed by public availability of much of the reported information 60 days after month-end. We are also proposing to require an open-end fund that is subject to classification requirements in the liquidity rule to provide information regarding the aggregate percentage of its portfolio represented in each of the three proposed liquidity categories, which would be publicly available. The reported aggregate percentages would include adjustments to give effect to other aspects of the proposal. Finally, we are proposing amendments relating to funds' use of swing pricing, conforming amendments to reflect the proposed amendments to rule 22e-4, and amendments to certain entity identifiers.

²⁶⁹ For purposes of this section, the term “fund” refers to registrants that currently are required to report on Form N-PORT, including open-end funds, registered closed-end funds, and ETFs registered as unit investment trusts, and excluding money market funds and small business investment companies.

a. Filing Frequency

We are proposing to amend rule 30b1-9 and Form N-PORT to require funds to file reports on Form N-PORT on a more timely basis, with changes to both the frequency with which a fund would file reports on Form N-PORT and when the reports are due.²⁷⁰ Specifically, rather than filing monthly reports with the Commission 60 days after the end of each fiscal quarter, we are proposing to require that funds file reports on a monthly basis.²⁷¹ These monthly filings would be due within 30 days after the end of the month to which they relate and would be made public 60 days after the end of the month to which they relate.²⁷² As an example, currently a fund files Form N-PORT reports for the first, second, and third months of each fiscal quarter with the Commission 60 days after the end of the third month of the quarter. Under the proposal, funds would separately file reports for the first, second, and third months of the quarter, with each month's report due within 30 days of month-end.

These changes are intended to provide more timely information regarding the fund's portfolio, including its liquidity profile. Both the current quarterly reporting cadence and the 60-day delay after the end of the quarter before reports are due make it difficult to use reported data to assess events that are developing quickly, or to identify early warning signs of potential distress. By the time the information is filed, it is at least two, and could be as many as four, months out of date.²⁷³

²⁷⁰ The proposal would also make a conforming edit to the filing instructions for Form N-PORT. See proposed 17 CFR 274.150(a).

²⁷¹ We would also make conforming changes to General Instruction A of Form N-PORT and rule 30b1-9 to remove references to the requirement for a fund to maintain in its records the information that is required to be included on Form N-PORT no later than 30 days after the end of each month; this would no longer be necessary because the information would be filed with the Commission. See Proposed General Instruction A of Form N-PORT; proposed rule 30b1-9.

²⁷² *Id.*; proposed General Instruction F of Form N-PORT. As is the case currently, if the due date falls on a weekend or holiday, the filing deadline would be the next business day.

²⁷³ Because reports are due 60 days after the end of a fund's fiscal quarter, deadlines vary based on

As proposed in 2015 and adopted in 2016, Form N-PORT would have provided for monthly filings with the Commission, within 30 days after the end of each month.²⁷⁴ Only reports for every third month would have been available to the public.²⁷⁵ The Commission originally required monthly portfolio reporting because it would be useful for fund monitoring, particularly in times of market stress.²⁷⁶ The Commission originally required funds to file each monthly report within 30 days of month end because more delayed data would reduce the utility of the information to the Commission and lag times of more than 30 days would make monthly reporting impractical, as reports would overlap with preparation time.²⁷⁷

Before the date funds would have been required to comply with this requirement, the Commission experienced a cybersecurity incident that resulted in unauthorized access to certain nonpublic information on the EDGAR system.²⁷⁸ As part of the Commission's ongoing assessment of its internal cybersecurity risk profile, the Commission re-evaluated and modified the filing frequency for reports on Form N-PORT. The Commission required funds to file a

the fund's fiscal year. As an example, depending on a given fund's fiscal year, reports on Form N-PORT that included information for Mar. 2020 were due between June 1, 2020, and July 30, 2020. For instance, for funds with fiscal years ending Dec. 31, Sept. 30, June 30, or Mar. 30—which is just under half of all funds—the due date of the filing was May 30, 2020. Because this was a Saturday, the filing deadline was extended until the next business day on Monday, June 1. *See* General Instruction A to Form N-PORT.

²⁷⁴ *See* Investment Company Reporting Modernization, Investment Company Act Release No. 32314 (Oct. 13, 2016) [81 FR 81870 (Nov. 18, 2016)] (“Reporting Modernization Adopting Release”), at section II.A; Investment Company Reporting Modernization, Investment Company Act Release No. 31610 (May 20, 2015) [80 FR 33589 (June 12, 2015)] (“Reporting Modernization Proposing Release”).

²⁷⁵ *See* Reporting Modernization Adopting Release, *supra* note 274, at section II.A.

²⁷⁶ *See id.*, at paragraph following n.453.

²⁷⁷ *See id.*, at nn.461-462 and accompanying text.

²⁷⁸ *See* Statement on Cybersecurity (Sept. 20, 2017), *available at* <https://www.sec.gov/news/public-statement/statement-clayton-2017-09-20>; *see also* Testimony before the Financial Services and General Government Subcommittee of the Senate Committee on Appropriations (June 5, 2018), *available at* <https://www.sec.gov/news/testimony/testimony-financial-services-and-general-government-subcommittee-senate-committee>.

report with the Commission for each month in the fund's fiscal quarter no later than 60 days after the end of each fiscal quarter and to maintain in their records the information that is required to be included on Form N-PORT not later than 30 days after the end of each month. In making this change, the Commission stated that it significantly reduced the sensitivity of the non-public data, but that the staff would continue to monitor and solicit feedback on the data received and the use made (or expected to be made) of such data in furtherance of the Commission's statutory mission, as well as cybersecurity considerations and other matters deemed relevant by the staff.²⁷⁹

The Commission applies controls and systems for the use and handling of filing systems for confidential information and associated confidential data in a manner that reflects the sensitivity of the data and is consistent with the maintenance of its confidentiality. The Commission also has gained additional experience in receiving and maintaining sensitive portfolio data on the EDGAR system. This experience includes, for example, the existing non-public portions of Form N-PORT, which are subject to controls and systems designed to protect their confidentiality, as well as confidential treatment requests for reports on Form 13F.²⁸⁰

Market events have reinforced the need for timely data regarding funds' portfolios and the liquidity of those portfolios. For example, disruptions in the markets for Treasury securities and corporate bonds began near the end of the first quarter of 2020, but many funds' reports on Form N-PORT reflecting these events were not due until June 1, 2020, or as late as the end of

²⁷⁹ See Amendments to the Timing Requirements for Filing Reports on Form N-PORT, Investment Company Act Release No. 33384 (Feb. 27, 2019) [84 FR 7980 (Mar. 6, 2019)] at nn.36-39 and accompanying text.

²⁸⁰ See Electronic Submission of Applications for Orders under the Advisers Act and the Investment Company Act, Confidential Treatment Requests for Filings on Form 13F, and Form ADV-NR; Amendments to Form 13F, Investment Company Act Release No. 34635 (June 23, 2022) [87 FR 38943 (June 30, 2022)], at section II.C.

July 2020. This meant that Commission staff were not able to review monthly filings, for example, to assess and analyze how the events were affecting funds or identify issues for further inquiry. Similarly, the Russian invasion of Ukraine began in late February 2022, when many funds were just filing their reports for the final quarter of 2021. This meant that when Commission staff were reviewing data to assess funds' exposures to securities that could be affected by the invasion, the data was several months out of date.²⁸¹ As a result, during major market events, the staleness of Form N-PORT data limits the Commission staff's ability to develop a comprehensive understanding of the market. The stale data also can impede our ability to contribute fully to interagency discussions of and responses to market events.

Although funds are required to maintain the monthly data and produce it to Commission staff upon request, any such production would be done on an individual basis. In addition, making individual requests requires Commission staff to determine the appropriate funds from which to collect data, which can be particularly challenging when Commission staff is responding to market events but may not have the market data necessary to determine quickly which funds to prioritize in responding to the event.

Requiring funds to file monthly reports on Form N-PORT within 30 days of the end of each month, consistent with the filing frequency the Commission initially adopted for Form N-PORT, would enhance our ability to effectively oversee and monitor the activities of investment companies in order to better carry out our regulatory functions, consistent with the goals of Form N-PORT reporting.²⁸²

²⁸¹ As evidence mounted that an invasion was likely to occur, funds may have adjusted their exposure to securities that could be affected, but Commission staff were unable to review this on a market-wide basis until months after the invasion due to the delay in receiving information.

²⁸² See, e.g., Reporting Modernization Proposing Release, *supra* note 274, at section IV.A. See also 2015 Proposing Release, *supra* note 31, at text accompanying n.562.

We request comment on the proposed changes to the timing and frequency with which fund would be required to file reports on Form N-PORT, including:

201. As proposed, should we require that funds file reports on Form N-PORT on a monthly, rather than quarterly, frequency? Because funds are currently required to maintain the information required to prepare their reports on Form N-PORT on a monthly basis, within 30 days after the end of the reporting period, would they have any increased burden due to filing such information monthly, within 30 days after the end of the reporting period, as proposed?
202. As proposed, should we shorten the deadline for filing reports on Form N-PORT to 30 days after the end of the reporting period? Should we instead use a different deadline, such as 15, 45, or 60 days after the end of the reporting period?
203. Should we, as proposed, revise General Instruction A of Form N-PORT and rule 30b1-9 to remove the requirement for a fund to maintain in its records the information that is required to be included on Form N-PORT no later than 30 days after the end of each month because this information would be filed with the Commission under the proposal?

b. Publication Frequency

We are proposing to make funds' monthly reports on Form N-PORT public 60 days after the end of each monthly reporting period.²⁸³ Currently, only the report for the third month of every quarter is made public, meaning the proposal would triple the amount of data made available to investors on Form N-PORT in a given year. Thus, the proposal would enhance the ability of investors to review and monitor information about their funds' portfolios.²⁸⁴

²⁸³ See proposed General Instruction F of Form N-PORT.

²⁸⁴ We also propose to include additional information about the aggregate liquidity profiles of fund

We continue to believe that publication of information collected on Form N-PORT can benefit investors by assisting them in making more informed investment decisions.²⁸⁵ The public availability of monthly information, rather than information only for the third month of each quarter, may enhance these benefits. For example, institutional investors could directly use the monthly information reported on Form N-PORT to evaluate fund portfolios and assess the potential for returns and risks of a particular fund, and other investors may benefit from third-party analysis of the monthly data.

When the Commission first adopted Form N-PORT, it recognized potential negative effects from frequent publication of Form N-PORT data. For example, the Commission acknowledged the risk that frequent public disclosure could allow market participants to use funds' reports on Form N-PORT to engage in predatory trading such as front-running.²⁸⁶ The Commission also recognized that more frequent public disclosure could permit free riding on a fund's research or trading expenditures by allowing other market participants to copy the fund's trades.²⁸⁷ In determining to maintain the status quo of quarterly public reporting based on the fund's fiscal quarters, the Commission stated that it was important to assess the impact of the data reported on Form N-PORT on the mix of information available to the public, and the extent to which these changes might affect the potential for predatory trading, before determining

portfolios. *See infra* section II.E.1.c.

²⁸⁵ *See* Reporting Modernization Adopting Release, *supra* note 274, at section II.A.4.

²⁸⁶ *See* Reporting Modernization Adopting Release, *supra* note 274, at text accompanying n.488. *See also* Investment Company Reporting Modernization, Investment Company Act Release No. 32936 (Dec. 8, 2017) [82 FR 58731 (Dec. 14, 2017)] (noting same concerns).

²⁸⁷ *Id.* *But see* Morningstar Comment Letter on Reporting Modernization Proposing Release, File No. S7-08-15, *available at* <https://www.sec.gov/comments/s7-08-15/s70815-355.pdf> (discussing data that funds providing more frequent disclosure do not appear to exhibit lower returns as a result of predatory behavior).

whether more frequent or more timely public disclosure would be beneficial to investors in funds.²⁸⁸

Since the adoption of Form N-PORT, funds' practices with respect to disclosure of information about their portfolios have continued to evolve. For example, many funds, including actively managed funds, voluntarily provide their complete portfolio holdings on their websites on a monthly basis, typically lagged 30 days. Further, ETFs, including actively managed ETFs, generally are required to provide transparency into their portfolio holdings on a *daily* basis.²⁸⁹ Many funds also provide monthly information about their portfolio holdings to third party data aggregators, generally with a lag of 30 to 90 days, which in turn make them available to investors for a fee. We believe this demonstrates that investor demand for monthly portfolio holdings already exists and that funds providing the information have determined the potential for predatory trading is justified by the benefit to investors. The proposal would simply allow all investors to receive similar data without paying a fee.²⁹⁰ Thus, we believe that many funds already provide public transparency of their portfolio holdings more frequently than the proposal would require, and that our proposal would level the playing field by standardizing the reporting

²⁸⁸ Reporting Modernization Adopting Release, *supra* note 274, at text accompanying nn.494-499 and accompanying text.

²⁸⁹ See 17 CFR 270.6c-11(c)(1)(i); Exchange-Traded Funds, Investment Company Act Release No. 33646 (Sep. 25, 2019) [84 FR 57162 (Oct. 24, 2019)] ("ETF Release"), at section II.C.4 (stating that, although a few commenters raised concerns about front running or free riding if certain ETFs were required to provide full daily portfolio transparency, the Commission believed it was likely that all current ETFs that may rely on the rule already provide full portfolio transparency as a matter of market practice). In addition, a small number of "nontransparent" ETFs have received an exemptive order from the Commission permitting them not to disclose their portfolio holdings on a daily basis. As of Mar. 31, 2022, there were 45 nontransparent ETFs. Several of these nontransparent ETFs voluntarily disclose their complete portfolios on a monthly basis with a one-month lag.

²⁹⁰ For example, we understand that a majority of funds provide monthly information regarding their portfolios to a third-party data aggregator. Individual investors are able to review the holdings reported by funds providing data to the aggregator using an analysis tool for which the aggregator charges a fee.

timelines for all funds, putting the data in a single location that all investors can access without charge, and using a standardized format that enables investor analysis of reported data.²⁹¹ In addition, under the proposal, the public information for each fund's monthly report on Form N-PORT would not be publicly available until 60 days after the end of the month, which is the same delay that currently exists for funds' reports for the third month of every quarter. This is designed to balance the benefits to investors of more frequent portfolio disclosure, while also retaining the existing 60-day delay, which we believe is appropriate in order to make the disclosed positions less timely and thus less likely to facilitate predatory trading practices.²⁹² As a result, and given that the proposal would provide data for additional monthly periods but would not change the current 60-day delay in making funds' reports on Form N-PORT public, the proposal is intended to mitigate opportunities for predatory trading or free riding of funds' trading strategies.²⁹³

Furthermore, the proposal is intended to benefit investors through increased transparency of Form N-PORT information, especially because it is provided in structured format and made in

²⁹¹ In addition, because we propose to make funds' reports on Form N-PORT available for every month, investors could use Form N-PORT to monitor how their funds respond to events regardless of when they occur. For example, investors in some funds have access to Form N-PORT filings for Mar. 2020, while investors in other funds do not. This is because Form N-PORT data is publicly available for the third month of each fund's fiscal quarter, but fiscal quarters vary among funds.

²⁹² Section 45(a) of the Investment Company Act requires information in reports filed with the Commission pursuant to the Act be made public unless we find that public disclosure is neither necessary nor appropriate in the public interest or for the protection of investors. For the reasons discussed above, we preliminarily believe that keeping the data for the first and second months of a fund's calendar quarter confidential until the expiration of the 60-day period provided by the proposal is necessary or appropriate in the public interest for the protection of investors.

²⁹³ Form 13F is due 45 days after the end of each calendar quarter, meaning that every third month, a fund's disclosure on Form N-PORT would not be the first mandatory disclosure of its portfolio. Funds currently have the ability to designate certain holdings for the third month in every quarter as "miscellaneous securities," which are not disclosed publicly on Form N-PORT. Because we propose that all filings would eventually become public, we are extending this to filings for each month. See text accompanying *infra* note 319.

a single, centralized database. Giving investors access to this information in monthly reports on Form N-PORT may result in investors being better able to monitor the portfolios of their funds in a systematic fashion, and assist investors in choosing the investment products that most closely align with their desired levels of risk, asset exposures, and liquidity profiles.

The proposed reporting requirement also takes into account the cybersecurity risk profile of the information we are collecting. Under the proposal, we would receive the monthly information 30 days after the end of each month. Because the monthly information reported on Form N-PORT would be made public 30 days after it is filed with the Commission, the Commission would retain less confidential information than under the final rules the Commission adopted in 2016. This is because, under the proposal, information for each month would become public shortly after filing instead of information in only the third month of each quarter being publicly disclosed.

Currently, certain information reported on Form N-PORT is nonpublic, even in the report for the third month of the quarter that is otherwise publicly available. This aspect of the form is unchanged in this proposal, and that information—which includes liquidity classifications for individual portfolio investments—would remain nonpublic in individual reports. However, Commission staff may publish aggregate or other anonymized information about the nonpublic elements of reports on Form N-PORT.²⁹⁴

We request comment on the proposed changes to the frequency with which funds' reports on Form N-PORT would be made public, including:

204. Should we, as proposed, make funds' reports on Form N-PORT public on a monthly basis, 60 days after the end of the month to which they relate? How would

²⁹⁴ See General Instruction F of Form N-PORT.

investors use the additional information? Are there other potential users of public portfolio disclosures, including third-party users that provide services to investors, who find the additional information useful, and through whom investors could benefit indirectly?

205. Many funds already provide monthly information about their portfolio holdings on their websites. Would investors benefit from having centralized information on Form N-PORT that includes all funds, rather than having to look at each fund's website? Would investors benefit from having the information in a structured format rather than the format the fund uses on its website? Would the proposed requirement reduce costs for investors who currently use data aggregators to obtain holdings information regarding the funds in which they invest?

206. Should the lag between filing and publication be extended, for example to 45 days after filing, or shortened, for example to 15 days after filing? Should reports be made public immediately upon filing?

207. Previously, some have suggested that more frequent public disclosure could raise costs for investors due to predatory trading or copy-catting of fund strategies. Given that the proposal would provide data for additional monthly periods but would not change the current 60-day delay in making funds' reports on Form N-PORT public, would the proposal raise costs for investors due to predatory trading or copy-catting? What empirical data exists that supports these assertions?

208. Would actively managed nontransparent ETFs, which generally do not disclose their complete portfolios on a daily basis, be affected by the proposed requirement to disclose their portfolio on a 60-day delay differently than other actively managed

funds, and should we permit these funds to disclose their portfolios less frequently as a result?

209. Do funds voluntarily publish data about their portfolios to compete for investors, notwithstanding potential effects on their performance?

210. Are there certain items on Form N-PORT that we propose to make public on a monthly basis that should only be public on a quarterly basis? If so, why is monthly disclosure of the relevant item neither necessary nor appropriate in the public interest or for the protection of investors?

c. Public Reporting of Aggregate Liquidity Classifications

We are proposing to require that funds' monthly reports on Form N-PORT would include the percentage of a fund's assets that fall into each of the three liquidity categories.²⁹⁵ To give effect to the proposed adjustments to a fund's calculations of its level of highly liquid investments and illiquid investments in the liquidity rule, a fund would be required to make the same adjustments to its reported amount of highly liquid investments and illiquid investments, rather than simply report the percent of assets the fund has classified in each category. Specifically, a fund would reduce its reported amount of highly liquid assets by the amount of highly liquid assets that it posts as margin or collateral for derivatives transactions that are not highly liquid and by the amount of the fund's liabilities. A fund also would increase its reported amount of illiquid assets by the amount of collateral available upon exit of illiquid derivatives transactions.²⁹⁶ The fund's adjustments are intended to more accurately reflect the availability of

²⁹⁵ See proposed Item B.12.a of Form N-PORT.

²⁹⁶ See proposed Items B.8 and B.12.b of Form N-PORT. In certain situations, the adjustments could result in the amounts of a fund's investments in all three categories not summing to 100% of assets. For example, the reduction in the reportable amount of highly liquid assets may be greater than the increase in the reportable amount of illiquid assets, resulting in the percentages of the fund's assets in each category summing to an amount below 100%. Funds would be required

assets to meet redemptions. We propose to require that a fund’s reported aggregate liquidity classifications include these adjustments, rather than report the adjustments separately, to make it easier for investors to understand the information a fund reports about its liquidity.

The public disclosure framework we are proposing is similar to the framework the Commission adopted in 2016.²⁹⁷ At that time, the Commission determined to require a fund to publicly disclose the aggregate percentage of its portfolio assets representing each of the classification categories to balance some commenters’ concerns about potential adverse effects that could arise from public reporting of detailed portfolio liquidity information with investors’ need for improved information about funds’ liquidity risk profiles.²⁹⁸

As funds began to implement the liquidity rule’s classification requirements, and before funds were required to provide public disclosure of aggregate liquidity classifications, the Commission received additional information about the potential challenges and concerns of publicly disclosing a fund’s aggregate liquidity profile at that time, namely the risk that the data would be subjective, that it was presented in isolation, and that it lacked the context of other disclosures about the fund.²⁹⁹ In response, the Commission replaced this disclosure with narrative liquidity disclosure in 2018.³⁰⁰ In removing the requirement to report aggregate liquidity classifications, the Commission stated that the subjectivity involved in the classification process

to increase their reported amounts of moderately liquid investments if necessary to make the amounts the fund reports sum to 100%. *See* proposed Item B.12.b of Form N-PORT.

²⁹⁷ *See* Liquidity Rule Adopting Release, *supra* note 8, at section III.C.6.c.

²⁹⁸ *See id.*, at text accompanying n.621.

²⁹⁹ *See* Investment Company Liquidity Disclosure, Investment Company Act Release No. 33046 (Mar. 14, 2018) [83 FR 11905 (Mar. 19, 2018)] (“2018 Liquidity Disclosure Proposing Release”) at nn.9-13 and accompanying text.

³⁰⁰ *See* 2018 Liquidity Disclosure Adopting Release, *supra* note 22. For discussion generally of the Commission’s stated rationale for making this change, *see generally id.* and 2018 Liquidity Disclosure Proposing Release, *supra* note 299.

raises concerns when applied to public disclosure. Specifically, the Commission expressed concern that the quantitative presentation of the aggregate liquidity information may imply precision and uniformity in a way that obscures its subjectivity, and that funds may face incentives to classify their investments as more liquid in order to make their funds appear more attractive to investors, while also potentially increasing the risk of herding if funds adjusted their portfolios in response to the disclosure requirement. In addition, the Commission believed that it would not be appropriate to adapt Form N-PORT to provide narrative context to help investors appreciate the fund's liquidity risk profile and the subjective nature of classification.

The Commission judged at that time that effective disclosure of liquidity risks and their management would be better achieved through prospectus and shareholder report disclosure rather than Form N-PORT, and adopted a requirement to disclose in a narrative format a brief discussion of the operation and effectiveness of its liquidity risk management program in the fund's shareholder reports. The intent of the narrative framework was to provide investors with a holistic view of the liquidity risks of the fund and how effectively the fund's liquidity risk management program managed those risks on an ongoing basis over the reporting period.³⁰¹

In practice, though, the narrative disclosure did not meaningfully augment other disclosure requirements.³⁰² Instead, based on staff experience with several years of shareholder reports covering a range of market conditions, including a market crisis in March 2020 that included substantial liquidity concerns for certain securities, we found that the narrative disclosure often appeared as a lengthy, boilerplate recitation of the requirements of rule 22e-4 that was not tailored to a particular fund and did not change as conditions in the market changed.

³⁰¹ See, e.g., *supra* section II.A.1. To the extent a fund would be incentivized to manage its portfolio so as to report higher amounts of highly liquid investments, we believe this would be consistent with the focus in section 22 of the Act on preserving the redeemability of open-end funds.

³⁰² Tailored Shareholder Reports Adopting Release, *supra* note 26, at text accompanying n.463.

For example, many funds' liquidity disclosures did not change after the events of March 2020, even for funds that invested in assets that had experienced severe liquidity issues. This meant that investors had limited information about the liquidity of fund investments or how the fund managed that liquidity risk through these stressful events. We believe that this prevented investors from fully evaluating the liquidity risks associated with a particular fund for purposes of making more informed investment decisions.

Investors and funds have made similar observations. In 2020, when the Commission proposed amendments designed to streamline fund shareholder reports, some commenters requested that we require funds to disclose their aggregate liquidity buckets.³⁰³ Other commenters stated that the narrative disclosure is not particularly relevant to investment decision making.³⁰⁴ Several other commenters also stated that they believed the narrative disclosure should be moved from shareholder reports.³⁰⁵ We recently adopted amendments that remove the requirement to disclose the narrative disclosure in the shareholder reports.³⁰⁶

³⁰³ See, e.g., Comment Letter of Consumer Federation of America on 2020 Tailored Shareholder Reports Proposing Release, File No. S7-09-20 (“[S]trongly encourag[ing] the Commission to reconsider its decision” to remove aggregate liquidity disclosure and characterizing narrative disclosure as “boilerplate.”); see also Comment Letter of Tom and Mary on 2020 Tailored Shareholder Reports Proposing Release, File No. S7-09-20 (“We think funds should be required to disclose their aggregate liquidity bucketing in their annual report. We believe this information is important to investors and will help them appreciate any liquidity risk.”). The comment file for the 2020 Tailored Shareholder Reports Proposing Release, where these comment letters are available, is at <https://www.sec.gov/comments/s7-09-20/s70920.htm>.

³⁰⁴ See, e.g., Comment Letter of Ubiquity on 2020 Tailored Shareholder Reports Proposing Release, File No. S7-09-20 (“Disclosure [of liquidity information in narrative format] is currently worthless and even with” the proposed changes which were designed to retain the narrative format, it “will continue to be worthless.”); see also Comment Letter of Tom Williams on 2020 Tailored Shareholder Reports Proposing Release; Feedback Flier of Olivia Brightly on 2020 Tailored Shareholder Reports Proposing Release.

³⁰⁵ See, e.g., Comment Letters of Morningstar Trustees, ICI, SIFMA, Fidelity, Dechert, James Angel, Lisa Barker, and T. Rowe Price on 2020 Tailored Shareholder Reports Proposing Release.

³⁰⁶ See Tailored Shareholder Reports Adopting Release, *supra* note 26.

Our proposed amendments to the liquidity rule, along with the years of experience that funds have gained in complying with the current rule, also have made the concerns the Commission identified in 2018 less relevant. Since 2018, the staff has conducted outreach with numerous market participants, including fund complexes, liquidity classification vendors, and others, and we are proposing several changes to rule 22e-4 that would prescribe additional parameters for many aspects of the classification process. These changes include introducing the concept of a 10% stressed trade size, establishing a minimum value impact standard, and removing asset class classifications, which would reduce subjectivity in classifications and reduce variation in funds' classification practices, even if incentives for a fund to mis-classify its investments remain.³⁰⁷ These changes are intended to reduce the risk of subjectivity impeding an investor's understanding.

To the extent that subjectivity remains, investors reviewing this information on Form N-PORT also will have access to additional information in fund prospectuses and shareholder reports, which are delivered directly to investors. Prospectuses and shareholder reports would provide additional information about the fund and context for the liquidity disclosure in Form N-PORT, such as information about the factors affecting a fund's risks, returns, and performance.³⁰⁸ In addition, the fact that the aggregate liquidity information would be required to change as liquidity conditions in the market change, and that investors would be able to review these changes on a monthly basis and compare them against the fund's prior reports would provide additional context for investors who desire this information. Investors could also compare the fund's reports to reports of similar funds, which could aid their understanding by allowing them

³⁰⁷ See, e.g., *supra* section II.A.1 and note 301.

³⁰⁸ See Reporting Modernization Adopting Release, *supra* note 274, at text following n.486 ("Form N-PORT is not primarily designed for disclosing information to individual investors . . .").

to focus on the differences. Finally, the proposed aggregate liquidity disclosure could improve the mix of information available to investors. Though reports on Form N-PORT do not provide information regarding a fund's investment strategy and risk factors, the information reported on Form N-PORT may complement the other information already available to investors in order to allow them to develop a fuller understanding of the fund and its risks.

We request comment on the proposed public availability of the aggregate liquidity classifications funds would report on Form N-PORT, including:

211. Should we, as proposed, require funds to report publicly information regarding the aggregate percentage of their portfolio in each of the three proposed liquidity classification categories? Should we, as proposed, require that this information be reported publicly on a monthly basis and, if not, what factors are unique to liquidity information that should result in it being publicized on a different frequency than other information on Form N-PORT? Instead of, or in addition to, the percentages of a fund's investments in each of the three proposed liquidity categories, should we require additional information to be reported? Is there any additional context, such as narrative disclosure, that would also be useful to investors? Should that narrative disclosure be located in Form N-PORT or somewhere else (*e.g.*, a fund prospectus, shareholder report, or website)?
212. Instead of, or in addition to, aggregate liquidity information, should we require position-level liquidity classifications to be reported publicly on Form N-PORT? Should we instead require position-level liquidity classifications to be reported publicly on a different form, such in a fund's annual and semi-annual reports? How frequently should this information be reported? Would position-level liquidity

reporting improve funds' liquidity classifications by allowing the public to review and scrutinize liquidity classifications? Would position-level liquidity reporting improve consistency in classification practices across funds by allowing funds to see how other similarly situated funds had classified the same or similar investments? Would position-level liquidity reporting improve investor access to or understanding of liquidity information, or would this information be difficult for investors to synthesize or understand? Would position-level liquidity reporting simplify the reporting framework for funds if this disclosure were in lieu of separate aggregate presentations? Would changes to the proposal, such as changes to how funds report the effect of the collateral they hold against derivatives that are not highly liquid, or the effect of liabilities, be necessary if we were to require position-level liquidity reporting? Would there be potential negative effects of position-level liquidity reporting? For example, would position-level liquidity reporting result in investors being able to infer information about a fund or company, such as being able to determine that a fund has material nonpublic information about an issuer because the fund categorizes the issuer's securities as illiquid? Would position-level liquidity reporting result in funds' counterparties engaging in predatory trading practices with funds, for example by adjusting the prices they bid for certain assets of a fund due to granular knowledge of how the fund categorizes the liquidity of its portfolio?

213. Should we, as proposed, require adjustments to the percentages of funds' assets in the proposed liquidity categories to account for certain derivatives transactions? Should we instead require information about derivatives transactions to be reported separately? Should certain derivatives transactions be treated differently for these

purposes, for example by making differing adjustments based on whether a derivative is exchange-traded, centrally cleared, made with certain categories of counterparty, or otherwise? Should we require differing adjustments for derivatives transactions depending on the purpose, for example whether they are intended to hedge currency or interest rate risks associated with one or more specific equity or fixed-income investments held by the fund as described in rule 18f-4(c)(4)(i)(B)? Are there any changes we should make to aid investor understanding of how funds' use of derivatives affects their liquidity?

214. We propose to require that if the reported sum of a fund's investments in each of the three categories does not equal 100%, the fund must adjust the percentage of assets attributed to the moderately liquid investment category so that the sum of the fund's investments in each category equals 100%. Should we take a different approach, such as making the adjustment optional, or permitting a fund to report aggregate percentages that do not sum to 100%? Should we permit or require funds to provide additional information, such as an explanatory note that the totals have been adjusted and the amount of the adjustment? Are there other metrics for which we should permit or require funds to modify the reported amounts?

215. Would fund prospectuses and shareholder reports delivered directly to investors provide sufficient context for the fund's aggregate liquidity information that would be disclosed on Form N-PORT under the proposal? Because Form N-PORT is not delivered to investors, would investors who have sought out Form N-PORT disclosure in the first instance be more likely to consider the information in the context of other publicly available information about the fund? If investors would not

have sufficient context when reviewing Form N-PORT, should we address this by requiring that funds send their most recent report on Form N-PORT to investors when they send other communications, such as their periodic reports or prospectus updates?

216. Instead of, or in addition to, including information regarding funds' aggregate liquidity profiles in Form N-PORT, as proposed, should we require that it be included in other documents, such as funds' annual and semi-annual shareholder reports? If so, should the disclosure included in funds' annual and semi-annual shareholder reports, or other documents, differ from what we propose to include in Form N-PORT? For example, should any disclosure in funds' annual and semi-annual shareholder reports, or other documents be in a different format, such as a pie chart, or also include narrative disclosure to allow funds to provide additional context?

d. Other Proposed Amendments to Form N-PORT

In addition to our proposed amendments to require more timely reporting of information and to enhance public transparency of funds' portfolio holdings and liquidity classifications, we are proposing a few additional amendments to Form N-PORT. These additional amendments include a new reporting item related to swing pricing, amendments to certain existing items to account for the proposal to make monthly Form N-PORT information available to the public, other conforming amendments to reflect the proposed amendments to rule 22e-4, and amendments to certain entity identifiers.

In connection with our proposed amendments to swing pricing, we are proposing to require enhanced transparency into the frequency and amount of a fund's swing pricing adjustments. Currently, if a fund were to engage in swing pricing, it would only be required to report on Form N-CEN if the fund engaged in swing pricing during a given year and, if so, the

swing factor upper limit established by the fund.³⁰⁹ We are proposing to remove that reporting requirement on Form N-CEN and replace it with a new reporting requirement on Form N-PORT that would require information about the number of times the fund applied a swing factor during the month and the amount of each swing factor applied.³¹⁰ To recognize that a swing factor adjustment could be positive (when the fund has net purchases) or negative (when the fund has net redemptions), we propose to specify that a fund must use a plus sign before a positive swing factor and a minus sign before a negative swing factor.³¹¹ More frequent and detailed information about a fund's use of swing pricing is intended to help the Commission assess the size of the price adjustments funds are making during normal and stressed market conditions, as well as how often funds apply swing factor adjustments. The public may also benefit from this information to help facilitate an understanding of the frequency and size of swing factor adjustments.

In addition, we are proposing to amend items that currently require funds to report certain return and flow information for each of the preceding three months.³¹² Rather than require information for the preceding three months, we are proposing to instead require a fund to report that information only for the month that the Form N-PORT report covers.³¹³ The Commission currently requires return and flow information for the preceding three months in a single report to provide investors access to monthly data for a given quarter, given that investors currently

³⁰⁹ See Item C.21 of current Form N-CEN.

³¹⁰ See proposed Item B.11 of Form N-PORT. Funds would be instructed to respond with "N/A" when appropriate.

³¹¹ We also propose to add a definition of "swing factor" to Form N-PORT, which would cross reference the definition of this term in proposed rule 22c-1(d). See General Instruction E of proposed Form N-PORT.

³¹² See Item B.5 and Item B.6 of current Form N-PORT.

³¹³ See Item B.5 and Item B.6 of proposed Form N-PORT.

only have access to Form N-PORT reports for the third month of each quarter.³¹⁴ Monthly data for the preceding three months was also intended to avoid a potential investor misperception that one month's returns or flows represented returns or flows for the full quarter.³¹⁵ Because, under our proposal, investors would have access to monthly Form N-PORT reports, we propose to amend the period for which a fund must report return and flow information to align with monthly public reporting.

For similar reasons, we are proposing to amend Part F of Form N-PORT, which currently requires a fund to attach its complete portfolio holdings for the end of the first and third quarters of the fund's fiscal year, presented in accordance with Regulation S-X, within 60 days after the end of the reporting period. We are proposing to require funds to file this disclosure within 60 days of the end of the reporting period for each month, with the exception of the last month of the fund's second and fourth fiscal quarters, because the latter portfolio holdings information is already available in funds' annual and semi-annual reports.³¹⁶ That is, we propose that funds would be required to file the portfolio disclosure on Part F of Form N-PORT ten times per year, instead of the current requirement to file twice per year. When the Commission adopted Part F of Form N-PORT, it recognized that not all investors may prefer to receive portfolio holdings information in a structured XML format, and instead might prefer portfolio holdings schedules presented using the form and content specified by Regulation S-X.³¹⁷ The Commission stated that

³¹⁴ See Reporting Modernization Adopting Release, *supra* note 274, at paragraphs accompanying nn.225, 232, and 250.

³¹⁵ See *id.*, at paragraphs accompanying nn.225 and 250.

³¹⁶ See Part F of proposed Form N-PORT. Currently, Part F of Form N-PORT does not require information for the second and fourth quarters of the fund's fiscal year for the same reason. See Item 6 of Form N-CSR and Reporting Modernization Adopting Release, *supra* note 274, at section II.J.

³¹⁷ *Id.* at section II.A.2.j.

requiring funds to attach these portfolio holdings schedules to reports on Form N-PORT would provide the Commission, investors, and other potential users with access to funds' current and historical portfolio holdings for those funds' first and third fiscal quarters, as well as consolidate these disclosures in a central location, together with other fund portfolio holdings disclosures in reports on Form N-CSR for funds' second and fourth fiscal quarters.³¹⁸ In conformance with the proposed requirement for funds to file their structured portfolio schedules on a monthly basis, and to make the monthly disclosure more useable for investors, we propose to amend Part F of Form N-PORT so that investors would be able to access unstructured portfolio schedules presented in accordance with Regulation S-X on the same frequency.

Similarly, we are proposing to amend Part D of Form N-PORT regarding miscellaneous securities to align with the proposal to make monthly Form N-PORT reports publicly available. Form N-PORT currently contemplates that detailed information about miscellaneous securities, which would remain nonpublic, would only be included in reports filed for the last month of each fiscal quarter.³¹⁹ This is because today all information reported on Form N-PORT for the first and second months of each quarter is nonpublic, which means there is no need for funds to designate any of their investments for those reporting periods as miscellaneous securities.³²⁰ Although our proposed shift from quarterly to monthly public reporting is intended to improve public transparency of funds' portfolio holdings, we continue to believe that treating information

³¹⁸ *Id.*

³¹⁹ See Part D of current Form N-PORT. The form permits funds to report as "miscellaneous securities" an aggregate amount of portfolio investments that does not exceed 5% of the total value of the fund's portfolio investments, provided that the securities included in this category are not restricted, have been held for not more than one year prior to the date of the related balance sheet, and have not previously been reported by name to the shareholders, or set forth in any registration statement, application, or report to shareholders or otherwise made available to the public.

³²⁰ See Reporting Modernization Adopting Release, *supra* note 274, at text following n.424.

related to miscellaneous securities as nonpublic may serve to guard against the premature release of those securities positions and thus deter front-running and other predatory trading practices, and that for this reason public disclosure of miscellaneous securities continues to be neither necessary nor appropriate in the public interest or for the protection of investors.³²¹ At the same time, it is important for the Commission to receive more detailed information about miscellaneous securities holdings so the Commission has a complete record of the portfolio for monitoring, analysis, and checking for compliance with Regulation S-X.³²² As a result, we are proposing to amend Part D of Form N-PORT to remove the language that limits reporting of nonpublic information about individual miscellaneous securities holdings to reports filed for the last month of each fiscal quarter. The proposed amendment would allow funds in their monthly Form N-PORT reports to report publicly the aggregate amount of miscellaneous securities held in Part C, while requiring funds to provide more detailed information in Part D about the individual holdings in the miscellaneous securities category to the Commission on a nonpublic basis.

We are also proposing amendments to Form N-PORT to reflect the proposed amendments to rule 22e-4. For example, because we are proposing to remove the concept of a reasonably anticipated trade size from rule 22e-4, we are proposing to replace references to this concept in an instruction related to classifying portions of a single holding in multiple liquidity categories with references to the stressed trade size concept.³²³ We are also proposing to revise the liquidity classifications a fund will report to reflect the revisions to the liquidity categories in

³²¹ See *id.* at n.421 and accompanying text.

³²² See Reporting Modernization Adopting Release, *supra* note 274, at section II.A.2.h (requiring that information about miscellaneous securities be reported to the Commission on a nonpublic basis).

³²³ See Instructions to Item C.7 in proposed Form N-PORT.

rule 22e-4.³²⁴ Because we are proposing improvements to the way that a fund treats collateral for certain derivatives transactions when calculating whether it holds sufficient assets to meet its highly liquid investment minimum or holds an amount of illiquid assets that exceeds the 15% limit, we also are proposing to revise the information open-end funds must report about the collateral posted as margin or collateral in connection with certain derivatives transactions.³²⁵ We are similarly proposing to revise the information a fund would report about the fund's highly liquid investments to reflect that not all highly liquid investments will count toward the fund's highly liquid investment minimum.³²⁶ In addition to reflecting changes to rule 22e-4, these changes are also designed to provide additional information to Commission staff regarding a fund's level of highly liquid assets and illiquid assets and the effect of derivatives transactions on that amount.

In addition, we propose to amend certain items and definitions related to entity identifiers in the form. Specifically, we propose to amend the definition of LEI in the form to remove language providing that, in the case of a financial institution that does not have an assigned LEI, a fund should instead disclose the RSSD ID assigned by the National Information Center of the Board of Governors of the Federal Reserve System, if any.³²⁷ Instead of classifying an RSSD ID as an LEI for these purposes, we propose to provide separate line items where a fund would

³²⁴ See Item B.8 in proposed Form N-PORT; General Instruction E (Definitions) in proposed Form N-PORT.

³²⁵ See Item B.8 in proposed Form N-PORT. The proposed revisions would require a fund to report the value of its highly liquid investments that are assets that are posted as margin or collateral in connection with moderately liquid or illiquid investments, and would require a fund to report the value of any margin or collateral posted in connection with an illiquid derivatives transaction, where the fund would receive the value of the margin or collateral if it exited the derivatives transaction.

³²⁶ See Item B.7.b in proposed Form N-PORT.

³²⁷ See General Instruction E of proposed Form N-PORT.

report an RSSD ID, if available, in the event that an LEI is not available for an entity.³²⁸ This change is designed to improve consistency and comparability of information funds report about the instruments they hold, including issuers of those instruments and counterparties to certain transactions.

217. Should we require funds to report the number of times the fund applied a swing factor and each swing factor applied, as proposed? Should we require the median, highest, and lowest (non-zero) swing factor applied for each reporting period on Form N-PORT, rather than require disclosure of each swing factor applied?
218. Should we require funds to provide additional information about swing pricing in Form N-PORT reports, such as the swing pricing administrator's determination to use a lower market impact threshold or lower inflow swing threshold, if applicable? Should we separately require funds to disclose information about market impact factors, such as how many times a market impact factor was included in the swing factor each month and the size of those market impact factors (*e.g.*, either the size of any market impact factor applied, or the median, highest, and lowest (non-zero) amount)? Should we require funds to provide information about their imposition of redemption fees under rule 22c-2, which funds can use to recoup some of the direct and indirect costs incurred as a result of short-term trading strategies, such as market timing? If so, should we require funds to disclose in reports on Form N-PORT the number of times they imposed redemption fees during the period and the amount of the fees? Should funds be required to itemize each fee charged, disclose the total

³²⁸

See Items B.4, C.1, C.10, and C.11 of proposed Form N-PORT.

amount charged during the period and the average fee charged, or some other presentation?

219. Instead of, or in addition to, requiring information about swing pricing on Form N-PORT, should we require funds to provide information about their use of swing pricing in other locations? For example, would investors find this information more accessible if it were on fund websites, in registration statements, or in shareholder reports?

220. Should we require funds to provide return and flow information only for a single month, as proposed, or should we continue to require funds to provide return and flow information for the preceding three months? Even though investors would have access to monthly reports on Form N-PORT, is it helpful to have return or flow information for previous months in a single report to have a readily available point of comparison?

221. Should we amend Form N-PORT to continue to maintain the confidentiality of information about a fund's miscellaneous securities for each reporting period, as proposed? Are there other conforming amendments we should make to align Form N-PORT reporting requirements with the proposed changes to the frequency funds must file these reports and the timeline for filing and public availability?

222. Should we amend Form N-PORT to require a fund to attach its complete portfolio holdings presented in accordance with Regulation S-X within 60 days after the end of each month except for the last month of the fund's second and fourth fiscal quarters, as proposed? Should we instead require a fund to file this information on a different frequency, such as every month, without exception? Should we maintain the current

filing schedule? Should we require funds to attach this information within a different timeframe, such as no later than 45 days or 75 days after the end of the reporting period? If we make changes to other aspects of the proposal, such as changes to the frequency funds file reports on Form N-PORT, the delay between the end of the reporting period and filing, or the time at which filings are made public, should we also make conforming changes to Part F?

223. Are our proposed amendments to remove references to the concept of a reasonably anticipated trade size in Form N-PORT and replace them with references to the stressed trade size effective? Are there other conforming amendments we should make to align Form N-PORT with the liquidity rule amendments?

224. Should we, as proposed, amend Form N-PORT to require funds to identify the value of margin or collateral the fund has posted as margin or collateral in connection with an illiquid derivatives transaction in order to provide a complete picture of the amount of illiquid investments for purposes of the liquidity rule's 15% limit?

225. As proposed, should we amend the definition of LEI in the form and provide a separate item for providing an RSSD ID as an identifier, as applicable?

2. Amendments to Form N-CEN

We are proposing amendments to Form N-CEN to identify and provide certain information about service providers a fund uses to fulfill the requirements of rule 22e-4. The amendments would require a fund to: (1) name each liquidity service provider; (2) provide identifying information, including the legal entity identifier and location, for each liquidity service provider; (3) identify if the liquidity service provider is affiliated with the fund or its investment adviser; (4) identify the asset classes for which that liquidity service provider

provided classifications; and (5) indicate whether the service provider was hired or terminated during the reporting period. This information would allow the Commission and other participants to track certain liquidity risk management practices.³²⁹ As liquidity classification services have become more widely used, the proposal would require information about whether and which liquidity service providers are used, for what purpose, and for what period. Among other things, this information would help us better understand potential trends or outliers in funds' liquidity classifications reported on Form N-PORT; for example, by analyzing classifications trends of specific vendors, we might distinguish patterns in how classifications might differ due to vendor models or data.

As described above, we also propose to remove the current disclosure in Item C.21 of Form N-CEN and replace it with a new reporting requirement on Form N-PORT to provide enhanced transparency into the frequency and amount of a fund's swing pricing adjustments.³³⁰ In addition, consistent with our proposed amendments to the definition of LEI in Form N-PORT, we are proposing to make the same changes in Form N-CEN to separate the concepts of LEIs and RSSD IDs.³³¹

We request comment on the proposed amendments to Form N-CEN:

226. Would the proposed reporting on liquidity classification service providers assist investors and funds in better understanding how liquidity risk is managed at a fund?
- Should any other information be provided about the liquidity classification service provider?

³²⁹ See Liquidity Rule Adopting Release, *supra* note 8, at n.973.

³³⁰ Item C.21 of Form N-CEN is proposed to be revised to require disclosure on liquidity classification services, as described above.

³³¹ See Items B.16, B.17, C.5, C.6, C.9, C.10, C.11, C.12, C.13, C.14, C.15, C.16, C.17, D.12, D.13, D.14, E.2, F.1, F.2, F.4, and Instructions to Item G.1 of proposed Form N-CEN.

227. Should we require any information about a fund's use of swing pricing on Form N-CEN? How would this information relate to the information we propose to require on Form N-PORT?

228. As proposed, should we amend Form N-CEN to separate the concepts of LEI and RSSD ID? As proposed, should funds be required to provide an RSSD ID, if available, when an LEI is not available?

F. Technical and Conforming Amendments

In September 2019, the Commission adopted new rule 6c-11 to allow ETFs that satisfy certain conditions to operate without obtaining an exemptive order from the Commission.³³² We are proposing to make a technical amendment to the definition of ETF in rules 22e-4 and 22c-1, as well as in Forms N-CEN and N-PORT, as a result of this rulemaking. Specifically, the proposed amendments would replace language in each definition that refers to “an exemptive rule adopted by the Commission” with a direct reference to rule 6c-11.³³³

We are also proposing to make a conforming amendment to rule 31a-2. Specifically, this proposed amendment to the recordkeeping rule would replace the reference to the current swing pricing provisions in rule 22c-1(a)(3) with a reference to the proposed swing pricing provisions in rule 22c-1(b).³³⁴

G. Exemptive Order Rescission and Withdrawal of Commission Staff Statements

In light of the scope of our proposed amendments to the liquidity rule, and pursuant to our authority under the Act to amend or rescind our orders when necessary or appropriate to the

³³² See ETF Release, *supra* note 289.

³³³ See proposed rule 22e-4(a) and proposed rule 22c-1(d); General Instruction E of proposed Form N-CEN and General Instruction E of proposed Form N-PORT.

³³⁴ See proposed rule 31a-2(a)(2).

exercise of the powers conferred elsewhere in the Investment Company Act, we are proposing to rescind an exemptive order that relates to rule 22e-4.³³⁵ As this order's representations and conditions, and the relief provided, are predicated on rule 22e-4 in its current form, the proposed amendments, if adopted, would render the order moot, superseded, and inconsistent with the final rule amendments. In addition, staff in the Division of Investment Management is reviewing its no-action letters and other statements addressing compliance with rules 22e-4 and 22c-1 to determine which letters and other staff statements, or portions thereof, should be withdrawn in connection with any adoption of this proposal. Upon the adoption of any final rule amendments, some of these letters and other staff statements, or portions thereof, would be moot, superseded, or otherwise inconsistent with the final rule amendments and, therefore, would be withdrawn. The staff review would include, but would not necessarily be limited to, the staff no-action letters and other staff statements listed below:

- Investment Company Liquidity Risk Management Programs Frequently Asked Questions (April 10, 2019);
- Reflow, SEC Staff No-Action Letter (July 15, 2002);
- Charles Schwab & Co., Inc., SEC Staff No-Action Letter (July 7, 1997);
- Investment Company Institute, SEC Staff No-Action Letter (Feb. 9, 1973);
- United Benefit, SEC Staff No-Action Letter (July 13, 1971);
- Investment Company Institute, SEC Staff No-Action Letter (Mar. 24, 1970); and
- Investment Companies: Share Pricing: SEC Staff Views, Investment Company Act Release No. 5569 [34 FR 383 (Dec. 27, 1968)].

³³⁵ See J.P. Morgan Investment Management Inc., et al., Investment Company Act Release No. 34180 (Jan. 21, 2021). See also section 38(a) of the Act, 15 U.S.C. 80a-37(a)

Additionally, the staff statements, or portions thereof, may be withdrawn following the relevant underlying transition period discussed in section II.H below, if adopted, as determined appropriate in connection with the staff's review of those staff statements.

We request comment on the proposed rescission or withdraw of past Commission or staff statements, and specifically on the following items:

229. Are there additional letters or other statements, or portions thereof, that should be withdrawn or rescinded? If so, commenters should identify the letter or statements, state why it is relevant to the proposed rule, how it or any specific portion thereof should be treated, and the reason.

230. If the amendments to the liquidity rule are adopted, are there any questions and responses in the staff FAQs that would still be relevant and helpful to retain?³³⁶

H. Transition Periods

We propose to provide a transition period after the effective date of the proposed amendments to give affected funds sufficient time to comply with any of the proposed changes and associated disclosure and reporting requirements, if adopted, as described below. Based on our experience, we believe the proposed compliance dates would provide an appropriate amount of time for funds to comply with the proposed rules, if adopted.

- *Twenty-Four-Month Compliance Date.* We propose that 24 months after the effective date of the amendments, all registered open-end management investment companies, except for money market funds and exchange-traded funds, must comply with the proposed swing pricing requirement in rule 22c-1, as well as the swing pricing disclosures applicable to these funds in the proposed amendments to Forms N-PORT and

³³⁶ See Liquidity FAQs, *supra* note 79.

N-1A.³³⁷ We also propose that 24 months after the effective date of the amendments, funds, transfer agents, registered clearing agencies, and intermediaries must comply with the proposed “hard close” requirement in rule 22c-1, and funds must comply with related disclosure requirements we propose to require in Form N-1A.³³⁸

- *Twelve-Month Compliance Date.* The proposed compliance period for all other aspects of the proposal is 12 months after the effective date of the amendments, if adopted, and includes the following:

- The proposed amendments to rule 22e-4, which include: (1) amending the rule’s liquidity categories, including reducing the number of liquidity categories from four to three; (2) providing specific and consistent standards that funds would use to classify investments, including by setting a stressed trade size and defining when a sale or disposition would significantly change the market value of an investment; and (3) requiring daily classifications;³³⁹ and
- The proposed amendments to Forms N-PORT and N-CEN, except the swing pricing-related disclosure on Form N-PORT.

We request comment on the proposed transition dates, and specifically on the following items:

231. Are the proposed compliance dates appropriate? If not, why not? Is a longer or shorter period necessary to allow affected funds to comply with one or more of these particular amendments, if adopted? If so, what would be a recommended compliance

³³⁷ See proposed rule 22c-1(b); Item B.11 of proposed Form N-PORT; and Item 6(d) of proposed Form N-1A.

³³⁸ See proposed rule 22c-1(a); Item 11(a) of proposed Form N-1A.

³³⁹ See proposed rule 22e-4.

date? Should we provide a longer compliance date for smaller funds, and if so what should this be (for example, 36 months for compliance with the swing pricing requirements, and 18 months for the other aspects of the proposal)? How should we define a “smaller fund” for this purpose? For example, should a smaller fund be a fund that, together with other investment companies in the same group of related investment companies, has net assets of less than \$1 billion as of the end of its most recent fiscal year?

232. In particular, is a longer period necessary for funds to comply with the proposed removal of the less liquid investment category and the amendment to the scope of illiquid investments? How long might it take for funds and other parties to reduce the settlement times for bank loans and other investments that funds currently classify as less liquid investments? Is a longer period necessary for retirement plan recordkeepers or other intermediaries to make necessary changes to their systems?

233. Should the compliance dates be staggered for certain provisions? For example, should the compliance date for the hard close occur prior to the compliance date for swing pricing?

III. ECONOMIC ANALYSIS

A. Introduction

The Commission is mindful of the economic effects, including the benefits and costs, of the proposed amendments. Section 2(c) of the Act, Section 202(c) of the Advisers Act, and Section 3(f) of the Exchange Act direct the Commission, when engaging in rulemaking where it is required to consider or determine whether an action is necessary or appropriate in the public interest, to consider, in addition to the protection of investors, whether the action will promote

efficiency, competition, and capital formation. In addition, Section 23(a)(2) of the Exchange Act, requires the Commission, when making rules under the Exchange Act, to consider among other matters the impact that the rules would have on competition, and prohibits the Commission from adopting any rule that would impose a burden on competition not necessary or appropriate in furtherance of the purposes of the Exchange Act. The analysis below addresses the likely economic effects of the proposed amendments, including the anticipated benefits and costs of the amendments and their likely effects on efficiency, competition, and capital formation. The Commission also discusses the potential economic effects of certain alternatives to the approaches taken in this proposal.

Open-end funds serve as intermediaries between investors seeking to allocate capital and issuers seeking to raise capital by pooling a portfolio of investments and selling the shares of this portfolio to investors. A prominent feature of open-end funds is the mismatch between the immediate liquidity funds provide to their shareholders³⁴⁰ and the potential illiquidity of fund portfolio investments (“liquidity mismatch”). In order to pay net redemptions or invest proceeds from net subscriptions, a fund generally incurs trading costs, which can, among other things, take the form of bid-ask spreads, commissions, markups, markdowns, or market impact (the tendency of large trades to shift prices in the market). Therefore, the liquidity mismatch can lead to non-negligible trading costs associated with selling the fund’s less liquid portfolio investments in order to meet investor redemptions or buying portfolio investments in order to accommodate investor subscriptions.³⁴¹

³⁴⁰ Section 22(e) of the Act establishes a shareholder right of prompt redemption in open-end funds by requiring such funds to make payments on shareholder redemption requests within seven days of receiving the request.

³⁴¹ Unless otherwise specified, we use the term “less liquid” in this section to refer to investments that are on the lower end of the liquidity spectrum, and not solely investments that are classified as “less liquid investments” under the current rule 22e-4.

As such, the liquidity mismatch and associated trading costs in the open-end fund sector present several potential problems, including: (1) funds may not be able to meet the statutory obligation to satisfy investor redemptions within seven days without incurring significant trading costs; (2) fund investors are subject to the risk of dilution; (3) fund investors' anticipation that they may be diluted may create a first-mover advantage that incentivizes them to redeem their shares before other investors do; and (4) fire sales that can be provoked by an increased pressure to meet redemptions could further disrupt already stressed markets.³⁴²

Market stress events, such as the one that occurred during March 2020, may exacerbate these issues.³⁴³ For example, during stress events investors may rebalance away from some investments into others for many reasons, including but not limited to, their general risk tolerance, legal or investment policy restrictions, or short-term cash needs. To the extent that such rebalancing activity is correlated across investors of the same fund or is correlated with deterioration in the liquidity of the fund's underlying assets, trading costs for the funds' underlying investments may increase and non-transacting fund shareholders may become exposed to increased dilution risk, which may lower future fund returns. In addition, the risk of investor dilution associated with the illiquidity of funds' underlying investments may create a first-mover advantage that could lead to increased mutual fund redemptions.³⁴⁴

Fund managers may not fully incorporate potential future fund shareholder dilution into their investment decisions for several reasons. First, potentially misaligned incentives between fund shareholders and fund managers may cause some fund managers to hold portfolios with liquidity levels that could be insufficient to meet redemptions without imposing significant

³⁴² See *infra* section III.B.3 for additional discussion of these issues.

³⁴³ See *supra* section I.B for a detailed discussion of the Mar. 2020 market events.

³⁴⁴ See *infra* section III.B.3 for additional discussion.

dilution costs on non-transacting fund investors, especially during periods of market stress. Second, fund investors may not have granular and timely enough information to adequately assess the extent of the liquidity risk they are taking on and, therefore, cannot discipline the extent to which a fund manager exposes the fund's shareholders to dilution risk. Finally, to the extent that first-mover advantage can lead to anticipatory mutual fund redemptions that could impose costs on other market participants,³⁴⁵ fund managers do not necessarily have an incentive to factor such costs into their investment decisions.

In light of these issues and our associated regulatory experience,³⁴⁶ the proposal seeks to further address liquidity externalities in the open-end fund sector. In particular, we expect the proposal to: (1) enhance open-end funds' liquidity; (2) improve funds' anti-dilution and resilience mechanisms for any given level of liquidity; and (3) increase the transparency of open-end funds' liquidity management practices. Together, the proposed amendments may mitigate liquidity externalities in the open-end fund sector by improving the ability of funds to meet redemptions without imposing significant trading costs on investors. This, in turn, may reduce the first-mover advantage associated with the dilution from trading costs and curtail run risk in open-end funds,³⁴⁷ which is consistent with recent analyses discussing how more robust liquidity

³⁴⁵ See e.g., Bing Zhu & René-Ojas Woltering, *Is Fund Performance Driven by Flows into Connected Funds? Spillover Effects in the Mutual Fund Industry*, 45 J. ECON. & FIN. 544, no. 9 (2021). See *infra* section III.B.3 for additional discussion.

³⁴⁶ See *supra* sections I and II for the discussion of regulatory experience.

³⁴⁷ We recognize that factors other than dilution related to trading costs – such as dilution from falling asset prices (market risk) and from potential differences between prices of underlying investments used for a fund's net asset value calculation and execution prices for these investments – may also contribute to the first-mover advantage in redemptions and potential runs in open-end funds. These and other considerations are discussed in greater detail in section III.B.3 below.

management may mitigate this risk.³⁴⁸ The proposed amendments may also reduce the likelihood or the extent of future government interventions.³⁴⁹

The proposed amendments to the liquidity risk management (“LRM”) program³⁵⁰ are designed to support funds’ ability to meet redemptions without significant trading costs, such as larger haircuts associated with less liquid investments that open-end funds may hold in their portfolios. Although less liquid investments generally offer a higher return, the trading costs associated with selling these assets during periods of increased redemptions may offset this risk premium, potentially resulting in a lower overall return for fund investors.³⁵¹ Therefore, a more robust liquidity management program that requires funds to hold more highly liquid investments may benefit fund investors in the longer term. In addition, requiring funds to hold a greater share of highly liquid investments may help limit the price impact that funds impose on underlying markets when they sell less liquid assets to meet investor redemptions, especially during periods of market stress.³⁵²

³⁴⁸ See Nicolas Valderrama, *Can the Liquidity Rule Keep Mutual Funds Afloat? Contextualizing the Collapse of Third Avenue Management Focused Credit Fund*, 70 CATH. U. L. REV. 317 (2021). See also Landon Thomas Jr., *A New Focus on Liquidity After a Fund’s Collapse*, N.Y. TIMES, Jan. 11, 2016, available at <https://www.nytimes.com/2016/01/12/business/dealbook/a-new-focus-on-liquidity-after-a-funds-collapse.html>.

³⁴⁹ See e.g., Antonio Falato et. al., *Financial Fragility in the COVID-19 Crisis: The Case of Investment Funds in Corporate Bond Markets*, 123 J. MONETARY ECON. 35 (2021). The authors discuss how the Federal Reserve bond purchase program helped to reverse mutual funds’ outflows during the Mar. 2020 period.

³⁵⁰ See *supra* section II.A.

³⁵¹ See e.g., Mikhail Simutin, *Cash Holdings and Mutual Fund Performance*, 18 REV. FIN. 1425, no. 4 (2014), See also Aleksandra Rzeznik, *Skilled Active Liquidity Management: Evidence from Shocks to Fund Flows*, (Jul. 29, 2021), available at SSRN: <https://ssrn.com/abstract=4106412> (retrieved from SSRN Elsevier database).

³⁵² See e.g., Sergey Chernenko & Adi Sunderam, *Liquidity Transformation in Asset Management: Evidence From the Cash Holdings of Mutual Funds* (National Bureau of Economic Research (NBER) working paper no. w22391, Jul. 11, 2016), available at <https://ssrn.com/abstract=2807702>.

The goal of the proposed swing pricing and hard close requirements is to reduce the dilution of non-transacting fund shareholders by charging redeeming and subscribing investors the trading costs they impose on a fund,³⁵³ which may mitigate the first-mover advantage associated with the dilution from trading costs. Although swing pricing has not yet been implemented by any fund in the U.S., usage of swing pricing in other jurisdictions has been shown in certain cases to mitigate redemption pressure during periods of elevated market volatility.³⁵⁴ We recognize that swing pricing may not always fully reduce the potential first-mover advantage associated with increasing trading costs and discourage associated investor redemptions.³⁵⁵ However, even in these cases, we believe that investors would nevertheless benefit from the proposed requirement because it would reduce the dilution of non-transacting fund shareholders, regardless of the amount of trading activity by redeeming or subscribing investors.

Coupled with the proposed amendments to the LRM program and the proposed swing pricing and hard close requirements, the proposed reporting and public disclosure requirements are aimed at promoting transparency and facilitating investors' understanding of liquidity risk in the open-end fund sector, as well as promoting transparency regarding funds' application of

³⁵³ See *supra* sections II.B and II.C.

³⁵⁴ See e.g., CSSF Paper, *supra* note 61; Dunghong Jin et. al., *Swing Pricing and Fragility in Open-End Mutual Funds* 35 REV. FIN. STUD. (2022); Benjamin King & James Semark, *Reducing Liquidity Mismatch in Open-Ended Funds: A Cost-Benefit Analysis* (Bank of England working paper no. 975, Apr. 22, 2022), available at <https://ssrn.com/abstract=4106646>.

³⁵⁵ See CSSF Paper, *supra* note 61; Claessens & Lewrick, *supra* note 61; ESMA, *Recommendation of the European Systemic Risk Board (ESRB) on Liquidity Risk in Investment Funds* (Nov. 12, 2020), available at <https://www.esma.europa.eu/document/recommendation-european-systemic-risk-board-esrb-liquidity-risk-in-investment-funds>.

liquidity management tools.³⁵⁶ As a result, the proposed public disclosure requirements may aid investors in making more efficient portfolio allocation decisions.

Many of the benefits and costs discussed below are difficult to quantify. For example, we lack data that would help us predict how funds may adjust the liquidity of their portfolios in response to the proposed liquidity rule amendments; the extent to which investors may reduce their holdings in open-end funds as a result of the proposed swing pricing requirement and other amendments; the extent to which investors may move capital from mutual funds to other investment vehicles, such as closed-end funds, ETFs, or CITs; and the reduction in dilution costs to investors in open-end funds as a result of the proposed amendments (which would depend on investor subscription and redemption activity and the liquidity risk of underlying fund investments). Form N-PORT data is not sufficiently granular to allow such quantification, and many of these effects will depend on how affected funds and investors would react to the proposed amendments. While we have attempted to quantify economic effects where possible, much of the discussion of economic effects is qualitative in nature. We seek comment on all aspects of the economic analysis, especially any data or information that would enable a quantification of the proposal's economic effects.

B. Baseline

1. Regulatory Baseline

a. Liquidity Risk Management Program

Under the current rule,³⁵⁷ open-end funds classify each portfolio investment into one of the four defined liquidity categories, based on the number of days within which a fund reasonably expects the investment to be convertible to cash or sold or disposed of, without

³⁵⁶ See *supra* section II.E.

³⁵⁷ See Liquidity Rule Adopting Release, *supra* note 8.

significantly changing the investment's market value. The four categories are: (1) "highly liquid investments," which are cash and investments convertible into cash in current market conditions in three business days or less; (2) "moderately liquid investments," which are convertible into cash in current market conditions in more than three calendar days but in seven calendar days or less; (3) "less liquid investments," which are those the fund reasonably expects to be able to sell or dispose of in current market conditions in seven calendar days or less, but where the sale or disposition is reasonably expected to settle in more than seven calendar days; and (4) "illiquid investments," which cannot be sold or disposed of in current market conditions in seven calendar days or less.

A fund may generally classify and review its investments by asset class unless the fund or adviser has information about any market, trading, and investment-specific considerations that it reasonably expects to affect significantly the liquidity characteristics of an investment compared to the fund's other portfolio holdings within that asset class.³⁵⁸ Among other requirements, open-end funds generally are required to determine a minimum amount of highly liquid investments they should maintain. In addition, all open-end funds are prohibited from acquiring any illiquid investment if, immediately after the acquisition, the funds would have invested more than 15% of their net assets in illiquid assets; however, an investment in a liability position, such as a derivative, is not subject to this limitation. Under the current rule, a fund is required to identify the percentage of the fund's highly liquid investments that it has posted as margin or collateral in connection with derivatives transactions that the fund has classified as less than highly liquid.³⁵⁹

³⁵⁸ See rule 22e-4(b)(1)(ii)(A).

³⁵⁹ See rule 22e-4(b)(1)(ii)(C). In addition, funds currently are also required to exclude highly liquid assets that are posted as margin or collateral in connection with non-highly liquid derivatives transactions when determining whether the fund primarily holds highly liquid assets. See rule 22e-4(b)(1)(iii)(B).

In classifying its investments under the current rule, a fund analyzes how quickly it can sell an investment without the sale “significantly” changing the investment’s market value. Funds are required to determine two key inputs for this analysis. The first is the fund’s reasonably anticipated trade size.³⁶⁰ Reasonably anticipated trade size interacts with a fund’s assessment of future redemption/subscription activity: for example, if the fund would anticipate selling a large position relative to trading volume, the sale may depress the price. The second is the determination of what constitutes a “significant” change in value. In both cases, the rule allows funds to make their own reasonable assumptions.

Rule 22e-4 currently requires that funds review their liquidity classifications at least monthly in connection with reporting on Form N-PORT, and more frequently if changes in relevant market, trading, and investment-specific considerations are reasonably expected to materially affect one or more of their investments’ classifications.³⁶¹ The current rule also requires a fund to monitor and take timely actions related to the liquidity of its investments, including changes to its liquidity profile. Specifically, the rule prohibits a fund from acquiring any illiquid investment, if immediately after the acquisition, the fund would have invested more than 15% of its net assets in illiquid investments that are assets.³⁶² In addition, the rule requires a fund to provide timely notice to its board, and to the Commission on Form N-RN, if the fund exceeds the 15% limit on illiquid investments, or if there is a shortfall of the fund’s highly liquid investments below its highly liquid investment minimum for seven consecutive calendar days.³⁶³

³⁶⁰ Funds’ current practices in classifying the liquidity of their investments and otherwise complying with rule 22e-4 may take consideration of the staff’s Liquidity FAQs. *See, e.g., supra* note 79.

³⁶¹ *See* rule 22e-4(b)(1)(ii).

³⁶² *See* rule 22e-4(b)(1)(iv).

³⁶³ *See* rule 22e-4(b)(1)(iv)(A) and rule 22e-4(b)(1)(iii)(A)(3); Form N-RN Parts B through D.

Rule 22e-4 currently requires a fund to determine a highly liquid investment minimum if it does not primarily hold investments that are highly liquid. Funds that are subject to the highly liquid investment minimum requirement must determine a highly liquid investment minimum considering several factors, review this minimum at least annually, and adopt policies and procedures to respond to a shortfall of the fund's highly liquid investments below the minimum.³⁶⁴ The current exclusion for funds that invest primarily in highly liquid investments provides some discretion to determine the level of highly liquid investments that constitutes primarily.

b. Swing Pricing

Currently, the rule allows open-end funds that are not excluded funds to use swing pricing. The required swing pricing policies and procedures provide that funds must adjust their NAV per share by a single swing factor or multiple factors that may vary based on the swing threshold(s) crossed once the level of net purchases into or net redemptions from such fund has exceeded the applicable swing threshold for the fund. The current rule permits a fund to determine its own swing threshold for net purchases and net redemptions, based on a consideration of certain factors the rule identifies.³⁶⁵ The fund's swing factor is permitted to take into account only the near-term costs expected to be incurred by the fund as a result of net purchases or net redemptions on that day and may not exceed an upper limit of 2% of the day's NAV per share.

The determination of whether the fund's level of net purchases or net redemptions has exceeded the applicable swing threshold is permitted to be made based on receipt of sufficient

³⁶⁴ See rule 22e-4(b)(1)(iii).

³⁶⁵ See *supra* note 176.

information about the fund investors' daily purchase and redemption activity to allow the fund to reasonably estimate whether it has crossed the swing threshold with high confidence. This investor flow information may consist of individual, aggregated, or netted orders, and may include reasonable estimates where necessary.

In addition, rule 2a-4 requires, when determining the NAV, that funds reflect changes in holdings of portfolio securities and changes in the number of outstanding shares resulting from distributions, redemptions, and repurchases no later than the first business day following the trade date. This calculation method provides funds with additional time and flexibility to incorporate last-minute portfolio transactions into their NAV calculations on the business day following the trade date, rather than on the trade date.³⁶⁶

c. Reporting Requirements

Registered management investment companies and ETFs organized as unit investment trusts are required to file periodic reports on Form N-PORT about their portfolios and each of their portfolio holdings as of month-end.³⁶⁷ Funds file these reports on a quarterly basis, with each report due 60 days after the end of a fund's fiscal quarter. Only information about the fund's holdings for the third month of each fiscal quarter is available to the public. In addition to the publicly available information on Form N-PORT, investors also have access to information about the holdings of ETFs, including actively managed ETFs, which generally are required to

³⁶⁶ See Adoption of rule 2a-4 Defining the Term "Current Net Asset Value" in Reference to Redeemable Securities Issued by a Registered Investment Company, Investment Company Act Release No. 4105 (Dec. 22, 1964) [29 FR 19100 (Dec. 30, 1964)].

³⁶⁷ For purposes of discussions of filing requirements on Form N-PORT, the term "fund" refers to registrants that currently are required to report on Form N-PORT, including open-end funds, registered closed-end funds, and ETFs registered as unit investment trusts, and excluding money market funds and small business investment companies.

provide transparency into their portfolio holdings on a daily basis.³⁶⁸ Many funds also provide monthly information about their portfolio holdings to third party data aggregators, generally with a lag of 30 to 90 days, which in turn make them available to the public for a fee.

Registered investment companies other than face amount certificate companies also report census-type information to the Commission annually on Form N-CEN, including information related to fund service providers and whether a fund engaged in swing pricing during the fiscal year and if so, what was the upper limit for the swing factor. The current definition of LEI in Forms N-PORT and N-CEN provides that, in the case where a financial institution does not have an assigned LEI, a fund should instead disclose the RSSD ID assigned by the National Information Center of the Board of Governors of the Federal Reserve System, if any.³⁶⁹

Item 6 of Form N-1A also requires disclosure of a fund's use of swing pricing if the fund chooses to use swing pricing. Specifically, these provisions require that a fund that uses swing pricing explains the fund's use of swing pricing, including its meaning, the circumstances under which the fund will use it, and the effects of swing pricing on the fund and investors, as well as the upper limit the fund has set on the swing factor. Open-end funds are also required to file Form N-RN with the Commission if more than 15% of the registrant's net assets are, or become, illiquid investments as defined in rule 22e-4 and if a registrant's holdings in assets that are highly liquid investments fall below its highly liquid investment minimum for more than 7 consecutive calendar days. The form is required to be filed within one business day of the occurrence of these events.

³⁶⁸ See *supra* note 289.

³⁶⁹ See General Instruction E of proposed Form N-PORT and Instructions to Item G.1 of the Form N-CEN.

2. Overview of Certain Industry Order Management Practices

Mutual fund orders can be submitted to funds directly or via an intermediary. An order will be executed at a given day's NAV if an intermediary—rather than solely the fund, its designated transfer agent, or a registered securities clearing agency—receives the order by the fund's pricing time, typically 4 p.m. ET, unless an intermediary specifically established an earlier cut-off time for investor orders. In particular, a financial intermediary currently can submit an order that it received before 4 p.m. ET to a designated party after 4 p.m. ET for execution at that day's NAV.³⁷⁰ A fund discloses in its prospectus its pricing time and that a purchase or redemption is effected at a price that is based on the next NAV calculation after the order is placed.³⁷¹ After a fund finalizes its NAV calculation for a day, it disseminates the NAV to pricing vendors, media, and intermediaries, typically between 6 p.m. ET and 8 p.m. ET. We understand that certain intermediaries use order-processing systems that require knowledge of a fund's NAV. In addition, certain investor orders may also require knowledge of a fund's NAV before the order is sent to the fund.³⁷² As a result, a fund does not receive certain orders until after the fund distributed its NAV. For example, most retirement plan recordkeepers currently do not process orders from investors until they receive a fund's NAV and funds typically receive orders from these intermediaries the next morning.

We understand that for orders submitted to funds by an intermediary, an intermediary may net orders to varying degrees before their submission to a fund, a practice known as omnibus accounting. In addition, intermediaries may submit one or more netted orders at a single time, or may submit netted orders in batches at different times. For example, if an intermediary

³⁷⁰ We note that this practice differs from other jurisdictions. *See supra* note 225.

³⁷¹ *See* Item 11(a) of Form N-1A.

³⁷² *See supra* section II.C.3.d.

does not submit orders until after it has received the fund's final price, it may submit a single order to the fund that reflects the net dollar amount or the number of fund shares to be purchased or redeemed across all investors that submitted orders through that intermediary. If an intermediary does not wait until the fund's final price is received, it may submit two orders: one order expressed in the net number of shares purchased or sold and one order expressed in the net amount of dollars purchased or sold. Other intermediaries may aggregate orders at finer levels, providing aggregate purchase and sale figures separately. While netting practices vary, they may generally save intermediaries money, to the extent that intermediaries incur per transaction costs when submitting orders to a fund.

Intermediaries may track investor orders to various degrees before they send the finalized orders to funds. As such, the processing time of investor order may vary depending on the tracking and netting process of an intermediary. For example, retirement accounts track holdings and trades at the level of individual participants. Each participant account typically has multiple sub accounts that are organized by contribution type or source (pretax, after-tax, employer match, profit sharing, and other). We understand that, at least according to some plan rules, compliance restrictions require plans to track an account according to contribution type or source. For example, we understand that in at least some 401(k) plans, the third party administrator or retirement plan recordkeeper receives participant trades at the participant account level, after which, trades must be pro-rated (usually done based on today's market value) and posted to each contribution type or source. The administrator or recordkeeper then aggregates all participant trades for a particular plan and sends them to the trustee/custodian. The trustee then posts the aggregated plan trades on a trust/custody system (*i.e.*, for mandatory plan

reporting purposes). Most trust companies then aggregate all of their client trades at the asset level, generally to minimize trading or NSCC costs.

A significant portion of mutual fund orders is processed through NSCC's Fund/SERV platform. Within this platform, there exists a separate system that processes orders from defined contribution plans called Defined Contribution Clearance & Settlement ("DCC&S").

Fund/SERV for non-retirement clients allows firms to submit orders in currency, shares, or exchanges before knowing the NAV.³⁷³ DCC&S, on the other hand, as a matter of practice does not initiate order processing until the recordkeeper/third party administrator receives NAVs, as well as daily and periodic distribution (dividend and capital gain) rates.³⁷⁴

We recognize that the current industry practices related to intermediaries' order submissions prevent funds from knowing their final net flows until later hours, which may be one reason why no funds in the U.S. have implemented the optional swing pricing. We also recognize that swing pricing has been employed in Europe, including by U.S.-based fund managers that also operate funds in Europe.³⁷⁵ There can be various reasons why swing pricing has been successfully implemented in certain jurisdictions. For example, we understand that intermediary order submission practices in Europe differ from those in the U.S.,³⁷⁶ allowing funds to have more complete flow information before funds' pricing time. Another factor that may contribute to successful implementation of swing pricing in Europe is that the European mutual fund sector does not depend as much as the U.S. mutual fund sector on defined contribution retirement plans. According to ECB's investment fund statistics, as of Q2 2022,

³⁷³ See <https://www.dtcc.com/wealth-management-services/mutual-fund-services/fund-serv>.

³⁷⁴ *Id.*

³⁷⁵ See *supra* section I.B for a more detailed discussion about use of swing pricing in Europe.

³⁷⁶ See *supra* note 225.

pension funds held approximately EUR 1.4 trillion (10%) in investment fund shares³⁷⁷ out of 14.8 trillion in aggregate value of European investment fund shares issued.³⁷⁸ This is in contrast to U.S. where 54% of all mutual fund assets were held in retirement accounts as of Q1 2022.³⁷⁹ Further, according to one estimate, defined contribution retirement plans which, at least in the U.S., have certain transactions that require knowledge of NAV in order to be processed by an intermediary represent only 17% of Europe's total pension assets.³⁸⁰

3. Liquidity Externalities in the Mutual Fund Sector

As discussed above, the liquidity mismatch can lead to non-negligible trading costs (*e.g.*, spread or market impact costs) associated with selling the fund's less liquid portfolio investments in order to meet investor redemptions or buying portfolio investments in order to accommodate investor subscriptions. The magnitude of these costs can vary depending on market conditions, the liquidity of the underlying investments held in a fund's portfolio, and the size of funds' transactions in the market. Consequently, if investors transact at a NAV that does not account for ex-post trading costs, investors remaining in the fund have to bear these trading costs because they are ultimately reflected in the fund's future NAV.³⁸¹ Therefore, the value of shares held by

³⁷⁷ See Aggregated Balance Sheet of the Euro Area Pension Fund Sector, Section 1.1.1, European Central Bank Statistical Data Warehouse, *available at* <https://sdw.ecb.europa.eu/reports.do?node=1000006465>.

³⁷⁸ See Aggregated Balance Sheet of Euro Area Investment Funds, Section 1.1.2, European Central Bank, Statistical Data Warehouse, *available at* <https://sdw.ecb.europa.eu/reports.do?node=1000003516>.

³⁷⁹ See *infra* section III.B.4.ii.

³⁸⁰ See Press Release, Cerulli Associates, *Europe's Defined Contribution Market Is Set to Keep Growing*, (Mar. 3, 2022), *available at* <https://www.cerulli.com/press-releases/europes-defined-contribution-market-is-set-to-keep-growing>.

³⁸¹ For example, suppose a fund is fully invested in an underlying asset which can be bought at \$1.01 and sold at \$0.99. If the NAV is struck at the "mid," the fund's share price is \$1, and that is what redeeming investors receive for each fund share redeemed. However, after paying the spread costs, the fund receives only \$0.99 for each unit of the underlying asset that is sold to meet redemptions. The fund therefore needs to sell more of its underlying asset position relative to the size of the redemptions it experiences, reducing the assets held by non-transacting shareholders

non-transacting investors can be diluted due to the trading costs associated with the past trading activity of transacting fund investors, lowering the future returns of non-transacting fund shareholders.

We recognize that factors other than trading costs may contribute to dilution. For example, some funds may hold investments that do not have an active and robust secondary market (*e.g.*, high-yield bonds or municipal securities), making them opaque and difficult to accurately price in a timely manner, especially during times of market stress when some of these assets may stop trading. In such events, the last reported prices for these assets may be prices realized during pre-stress market conditions. As a result, the risk that the fund's NAV may be based on "stale" information if contemporaneous information about an asset's current value is unavailable or less reliable may increase. If a fund's NAV on a given date is based on such stale information, net redemptions at that NAV can dilute non-transacting fund shareholders when assets are eventually sold at prices that reflect their true, lower value.³⁸² Prior to the compliance date with the recent rule 2a-5,³⁸³ which aims to improve fund valuation practices, the stale pricing phenomenon has been documented in fixed income funds, and has been found to contribute to

and the fund's subsequent NAV. For example, if 10% of the fund's investors redeem their shares at the NAV of \$1, the fund needs to sell $10\% / \$0.99 = 10.1\%$ of its underlying asset position to meet redemptions and pay the spread costs. This leaves the remaining 90% of fund shares held by non-transacting fund investors with $100\% - 10.1\% = 89.9\%$ of the fund's prior asset position. Valued at the mid-price of \$1, this reduces the fund's NAV to $89.9\% / 90\% = \$0.999$.

³⁸² We recognize that fund investors can also be diluted due to factors other than trading costs or stale pricing, such as market risk. Market risk can also result in accretion for non-transacting fund investors. For example, if a fund redeems shareholders at an NAV of \$100 based on market prices at the time NAV is struck, but is then able to liquidate assets at a higher valuation on subsequent days due to changes in market prices, the value of shares held by non-transacting shareholders will increase beyond the increase due solely to the change in the value of the underlying investments held by the fund. While the value of the fund's holdings can go both up and down, such market risk amplifies the risk fund shareholders would otherwise experience. However, since market prices may be very difficult to forecast, the degree to which such dilution contributes to the first-mover advantage is unclear.

³⁸³ The Commission adopted rule 2a-5 in Dec. 2020, and the compliance date for funds was Sept. 8, 2022. *See* Valuation Adopting Release, *supra* note 110.

strategic redemptions.³⁸⁴ However, we recognize that while trading costs are strictly dilutive, pricing based on stale information can also result in accretion for non-transacting fund investors if realized sale prices are higher than prices that were based on stale information and used for the NAV calculation.

The stylized example illustrated in Figure 4 below shows how trading costs can dilute a fund that experiences net redemptions under two scenarios.³⁸⁵ Under the first scenario (the dotted line), the fund is able to sell investments to accommodate redemptions prior to striking its NAV for the day and to reflect these trades as well as trading costs in the calculated NAV for that day.³⁸⁶ This scenario is a theoretical benchmark that shows the minimum amount of dilution that must occur in order to accommodate redemptions. Under the second scenario (the solid line), the fund trades to accommodate redemptions after striking its NAV for the day. This scenario is generally the way U.S. funds currently accommodate investor redemptions, possibly because funds do not have complete order flow information before the end of the trading day.³⁸⁷

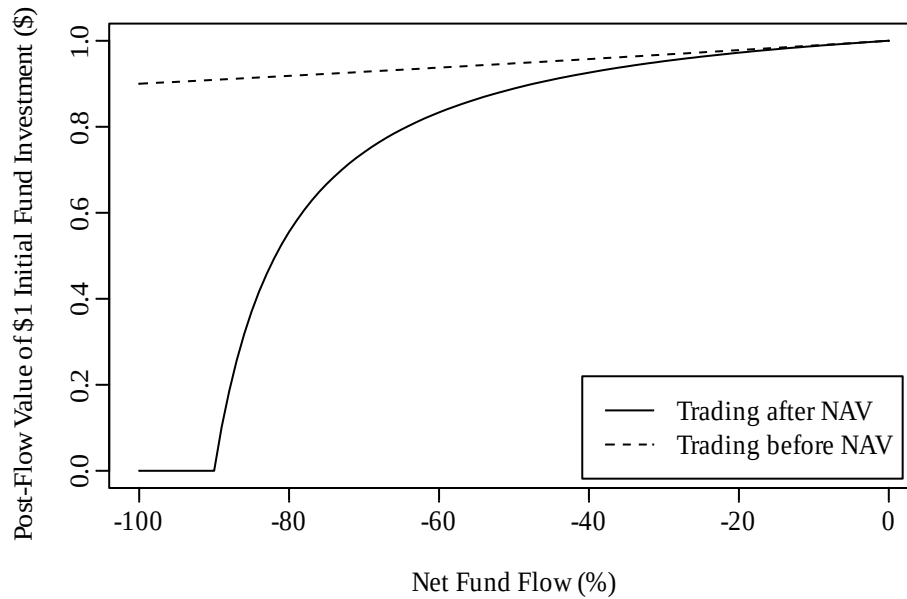
Figure 4: Dilution Effects of Different Trading Timelines over 1 Day.

³⁸⁴ See, e.g., Jaewon Choi et. al., *Sitting Bucks: Stale Pricing in Fixed Income Funds*, 145 J. FIN. ECON. 296, no. 2, Part A, (Aug. 2022).

³⁸⁵ The examples in the figure assume that a fund holds a portfolio of assets whose value is constant and that liquidating any portion of the portfolio to meet redemptions incurs a haircut of 10%. By assuming that the value of the asset does not change, the examples isolate the effect of trading costs on dilution from the effects of other sources of dilution such as market risk or stale NAVs. See *supra* note 384. The haircut assumption in these stylized examples is used purely for illustrative purposes; haircuts on most assets held by open-end funds generally tend to be smaller.

³⁸⁶ We recognize that under the current rule 2a-4 under the Investment Company Act, funds are permitted to reflect changes in their portfolio holdings in the first NAV calculation following the trade date and, thus, are not required to include today's trades in the calculation of today's NAV.

³⁸⁷ We recognize that there may be other operational considerations that result in this common practice. Therefore, even if a fund has complete order flow information before the trading day is over, it may choose to trade at a later date to accommodate today's redemptions.

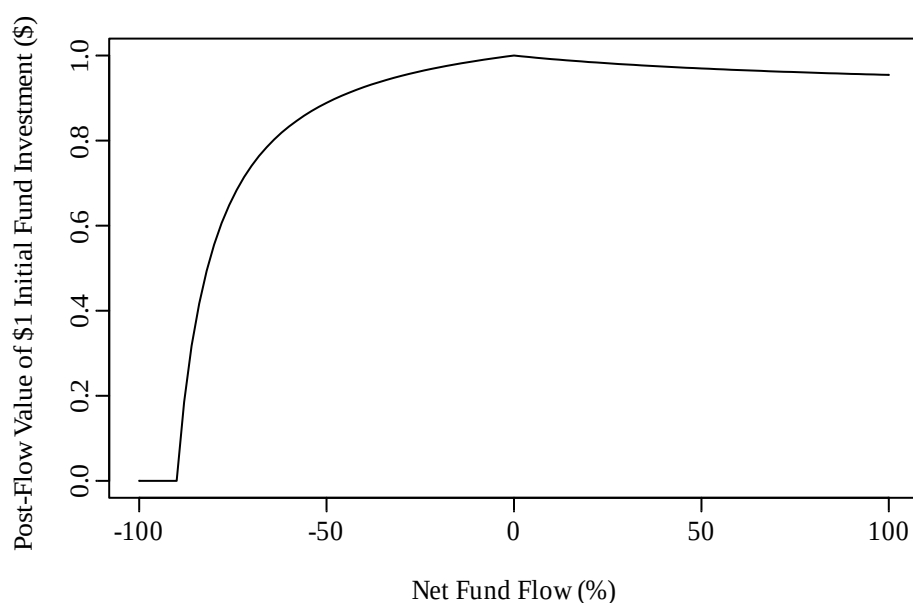


While these two scenarios result in similar dilution for lower levels of redemptions, larger levels of redemptions can contribute nonlinearly to higher fund dilution under the second scenario.³⁸⁸ This occurs because increasing redemptions result in increasing trading costs for the fund. These trading costs are borne solely by shareholders remaining in the fund, the number of which decreases as more investors redeem. Under this hypothetical scenario, the fund eventually runs out of assets to sell and is unable to meet further redemptions. In contrast, under the theoretical benchmark, the trading costs are borne by both redeeming investors and investors remaining in the fund; therefore, the shareholder base absorbing the trading costs remains constant regardless of the extent of redemptions. Accordingly, dilution increases proportionally to the amount of redemptions and the corresponding increase in trading costs.

³⁸⁸ To the degree that funds determine their NAV using holdings as of the prior trading day, such practices may also contribute to dilution.

Figure 5 removes the theoretical benchmark scenario illustrated in Figure 4 and focuses on how dilution affects both redemptions and subscriptions when trading to accommodate investor transactions occurs after the fund's NAV has been struck.³⁸⁹

Figure 5: The Dilutive Effects of Redemptions and Subscriptions.



The theoretical example in Figure 5 illustrates that the dilutive effect of trading costs is asymmetric for redemptions and subscriptions: while redemptions and subscriptions are similarly dilutive for small levels of net flows, their effects are different for more extreme levels of net flows. This occurs because a fund is not able to redeem 100% of its shares due to the non-linear impact of trading costs related to meeting redemptions being absorbed solely by investors remaining in the fund, as described above. In contrast, the trading costs related to subscriptions

³⁸⁹ To model the effect of net subscriptions, the example assumes that any new cash received by the fund is invested in the same underlying portfolio of investments, and that doing so incurs the same 10% spread cost. Redemptions are represented as negative net flows to the left of 0 on the x-axis and subscriptions are represented as positive net flows to the right of 0 on the x-axis. We recognize that dilution due to subscriptions does not occur until a fund incurs costs investing the subscription proceeds. Therefore, a fund that holds its subscription proceeds in cash indefinitely will not experience dilution.

are shared by both new subscribers and existing fund shareholders, which limits the maximum amount of dilution that can occur due to subscriptions.

The simplified examples above illustrate that non-transacting fund investors are exposed to the dilution risk that arises from accommodating redemptions and subscriptions of transacting fund investors. Incentives of mutual fund managers may not be sufficient to alleviate this risk for various reasons. For example, it is possible that investors do not have enough information to fully understand the nature of the risk they are exposed to by investing in funds that hold less liquid investments. In addition, investors in a fund may have varying preferences for risk and return, with some investors preferring investments with higher expected returns. Although investments that face increased liquidity risk may deliver such higher returns, the returns of funds that hold these investments may also be subject to greater amounts of volatility.³⁹⁰ A fund manager may choose to hold investments that are less liquid because of their potentially higher returns, or because they offer exposure to a different set of risks (*e.g.*, some investments may be less correlated with the market) than other investments in the fund's portfolio. Because higher returns tend to be associated with future inflows, it is possible that a fund manager's incentives are tilted towards earning higher returns relative to the risk they are taking on (though the opposite is also possible).³⁹¹ In particular, to the extent that holding less liquid investments may increase a fund's return (*e.g.*, during normal market conditions) and consequently its AUM,

³⁹⁰ See, *e.g.*, Kuan-Hui Lee, *The World Price of Liquidity Risk*, 99 J. FIN. ECON. 136 (2011). See also Viral V. Acharya & Lasse H. Pedersen, *Asset Pricing with Liquidity Risk*, 77 J. FIN. ECON. 375 (2005). See also Lubos Pastor & Robert Stambaugh, *Liquidity Risk and Expected Stock Returns*, 111 J. POL. ECON. 642 (2003).

³⁹¹ In an open-end fund context, fund inflows are sensitive to fund returns, which can incentivize fund managers to take on more risk. See, *e.g.*, Jaewon Choi & Mathias Kronlund, *Reaching for Yield in Corporate Bond Mutual Funds*, 31 REV. FIN. STUD. 1930 (2018); Jon A. Fulkerson et al., *Return Chasing in Bond Funds*, 22 J. FIXED INCOME, 90 (2013); Ferreira, Miguel A., et al., *The Flow-Performance Relationship around the World*, 36 J. BANKING & FIN. 1759, no. 6 (2012).

which determine the amount of management fees a fund manager collects, the fund manager may choose to over-invest in such assets,³⁹² not accounting for potential future trading costs these investments may impose on a fund if the market conditions change, which would result in a higher dilution risk for the fund's investors. Investors may currently lack sufficiently granular information to monitor for this possibility and to discipline the extent to which a fund manager exposes the fund's shareholders to dilution risk.

Investor dilution associated with illiquidity of funds' underlying investments may create a first-mover advantage that may lead to increased mutual fund redemptions similar to bank runs.³⁹³ Such redemptions have been observed prior to the adoption of the current liquidity rule.³⁹⁴ More specifically, fund investors may have an incentive to redeem their shares quickly if they believe that other investors will also redeem their shares and, by doing so, these other investors will dilute the fund's non-transacting shareholders. This first-mover advantage effect in mutual funds has been documented³⁹⁵ and studied as a mechanism for runs on mutual funds in

³⁹² See, e.g., Linlin Ma et. al., *Portfolio Manager Compensation in the U.S. Mutual Fund Industry*, 74(2) J. Fin. 587 (2019). See also Abhishek Bhardwaj et. al., *Incentives of Fund Managers and Precautionary Fire Sales* (Oct. 29, 2021), available at <https://ssrn.com/abstract=3952358>.

³⁹³ Liquidity mismatch between assets and liabilities is a mechanism that creates bank run dynamics that is well-accepted in the academic literature. See, e.g., Douglas Diamond & Philip Dybvig, *Bank Runs, Deposit Insurance, and Liquidity*, 91 J. POL. ECON., 401 (1983).

³⁹⁴ See Third Avenue Trust and Third Avenue Management LLC; Notice of Application and Temporary Order, Investment Company Act Release No. 31943 (Dec. 16, 2015). See also note 348.

³⁹⁵ See Qi Chen et. al., *Payoff Complementarities and Financial Frailty: Evidence From Mutual Fund Outflows*, 97 J. FIN. ECON. 239 (2010). See also Itay Goldstein et. al., *Investor Flows and Fragility in Corporate Bond Funds*, 126 J. FIN. ECON. 592 (2017); Yiming Ma et. al., *Bank Debt Versus Mutual Fund Equity in Liquidity Provision* (working paper, May 29, 2020), available at <https://ssrn.com/abstract=3489673>; Luis Molestina et. al., *Burned by Leverage? Flows and Fragility in Bond Mutual Funds* (European Central Bank (ECB) working paper no. 20202413, May 19, 2020) available at <https://ssrn.com/abstract=3605159> (retrieved from SSRN Elsevier database); Michael Feroli et. al., *Market Tantrums and Monetary Policy* (Chicago Booth Research Paper no. 14-09, Mar. 15, 2014), available at <https://ssrn.com/abstract=2409092> (retrieved from SSRN Elsevier database).

the academic literature.³⁹⁶ In addition, it has been shown that the effect of the first-mover advantage may be larger for funds that hold less liquid investments.³⁹⁷ While the academic literature on mutual fund runs generally relies on an exogenous mechanism to generate initial redemptions from a fund or relies on frictions such as an inability of a fund to raise capital and exogenous shocks such as negative fund returns, the results may extend to trading costs to the degree that dilution due to trading costs may reduce subsequent fund returns, which would trigger runs in these models. At the same time, we recognize that while dilution risk arising from trading costs can create incentives for early redemptions, redemptions may also occur for reasons unconnected to the pooled vehicle nature of the fund. For example, a recent working paper³⁹⁸ concludes that the behavior of mutual fund investors is similar to that of direct investors with overlapping holdings, and suggests that systemic implications of mutual fund investors' activities are not necessarily due to the liquidity transformation feature of the mutual fund structure, but

³⁹⁶ See e.g., Yao Zeng, *A Dynamic Theory of Mutual Fund Runs and Liquidity* (working paper no. 42, Apr. 2017), available at <https://ssrn.com/abstract=2907718> (retrieved from SSRN Elsevier database). See also Stephen Morris et. al., *Redemption Risk and Cash Hoarding by Asset Managers*, 89 J. MONETARY ECON. 71 (2017); Yiming Ma et. al., *Mutual Fund Liquidity Management, Transformation and Reverse Flight to Liquidity* (working paper, Jul. 29, 2020), available at <https://ssrn.com/abstract=3640861> (retrieved from SSRN Elsevier database); and Philipp König & David Pothier, *Safe but Fragile: Information Acquisition, Liquidity Support and Redemption Runs*, J. FIN. INTERMEDIATION (in press, corrected proof Dec. 15, 2020).

³⁹⁷ For example, one paper argues that fund investors' behavior is affected by the expected behavior of other investors in the fund and finds that funds with less liquid assets (where this investor effect is stronger) exhibit stronger sensitivity of outflows to bad past performance than funds with more liquid assets. See Qi Chen et. al., *Payoff Complementarities and Financial Frailty: Evidence From Mutual Fund Outflows*, 97 J. FIN. ECON. 239 (2010). Also see Meijun Qian and Başak Tanyeri, *Litigation and Mutual-Fund Runs*, 31 J FIN. STABILITY 119, (2017); and Sirio Aramonte et. al., *Measuring the Liquidity Profile of Mutual Funds* (FEDS working paper no. 2019-55, Oct. 22, 2019), available at <https://ssrn.com/abstract=3473039> (retrieved from SSRN Elsevier database).

³⁹⁸ See Christof W. Stahel, *Strategic Complementarity Among Investors with Overlapping Portfolios* (working paper, May 1, 2022), available at <https://ssrn.com/abstract=3952125> (retrieved from SSRN Elsevier database).

rather to the fact that mutual funds' investors compete for finite asset market liquidity when they decide to sell assets.

Mutual fund shareholders' transactions may also affect markets for funds' underlying portfolio holdings. Academic research suggests that redemption-induced sales of securities by mutual funds can create price pressure in underlying markets which may result in a fire-sale for these securities.³⁹⁹ Two studies have constructed measures of mutual fund outflow-induced price pressure on various securities that are widely-used in the academic literature.⁴⁰⁰ Subsequent studies use these price impact measures and claim that fire sales induced by investor redemptions hurt peer funds' performance and flows, leading to further asset sales that have a negative price impact.⁴⁰¹ Another paper suggests that redemptions from mutual fund that hold less liquid investments may contribute further to already existing poor market conditions by putting further downward pressure on prices of illiquid stocks.⁴⁰² In addition, one paper suggests that the

³⁹⁹ See e.g., Shiyang Huang et. al., *Does Liquidity Management Induce Fragility in Treasury Prices: Evidence From Bond Mutual Funds* (Dec. 30, 2021), available at <https://ssrn.com/abstract=3689674> (retrieved from SSRN Elsevier database). See also Hao Jiang et. al., *Does Mutual Fund Illiquidity Introduce Fragility Into Asset Prices? Evidence From the Corporate Bond Market*, 143 J. FIN. ECON. 277 (2021); Joshua D. Coval & Erik Stafford, *Asset Fire Sales (and Purchases) in Equity Markets*, 86 J. FIN. ECON. 479, no. 2 (2007); Donald J. Berndt et. al., *Using Agent-Based Modeling to Assess Liquidity Mismatch in Open-End Bond Funds*, SUMMER SIM '17: PROCEEDINGS OF THE SUMMER SIMULATION MULTI-CONFERENCE (Society for Computer Simulation International, San Diego, CA) (Jul. 2017); Valentin Haddad et. al., *When Selling Becomes Viral: Disruptions in Debt Markets in the COVID-19 Crisis and the Fed's Response*, 34 REV. FIN. STUD. 5309, no.11 (2021).

⁴⁰⁰ See Coval & Stafford, *supra*. Also see Alex Edmans et. al., *The Real Effects of Financial Markets: The Impact of Prices on Takeovers*, 67 J. FIN. 933 (2012). The constructed measures exploit the idea that large investor redemptions place pressure on mutual funds to sell portfolio holdings, and if these sales are sufficiently large, the funds' liquidity needs may put downward pressure on prices that is unrelated to the fundamental value of the underlying stocks.

⁴⁰¹ See e.g., Pekka Honkanen & Daniel Schmidt, *Learning From Noise? Price and Liquidity Spillovers Around Mutual Fund Fire Sales*, 12(2) REV. ASSET PRICING STUD. 593 (Jun. 2022); Antonio Falato et. al., *Fire-Sale Spillovers in Debt Markets*, 76 J FIN. 3055 no. 6 (2021).

⁴⁰² See Azi Ben-Rephael, *Flight-to-Liquidity, Market Uncertainty, and the Actions of Mutual Fund Investors*, 31 J. FIN. INTERMEDIATION 30 (2017).

exposure of stocks to fire-sale risk is bigger when mutual funds represent a larger share of the stock's owners.⁴⁰³ Moreover, academic research also documents the potential effect of mutual fund flows on market-wide return volatility,⁴⁰⁴ on a wide array of corporate decisions,⁴⁰⁵ on the choices of ETF security baskets,⁴⁰⁶ and on sell-side analysts' recommendations on stocks subject to mutual-fund flow-driven stock mispricings.⁴⁰⁷ However, several recent studies argue that the aforementioned price impact measures are biased and that with the removal of this bias many established in the prior literature results above no longer hold.⁴⁰⁸ Notwithstanding, while we recognize that there is an ongoing debate in the academic literature as to the size of these effects, the literature does point to a potential link between mutual fund flows and prices in the underlying markets.

⁴⁰³ See George O. Aragon & Min S. Kim, *Fire Sale Risk and Expected Stock Returns* (Mar. 11, 2022), available at <https://ssrn.com/abstract=3663567> (retrieved from SSRN Elsevier database).

⁴⁰⁴ See e.g., Charles Cao et. al., *An Empirical Analysis of the Dynamic Relationship Between Mutual Fund Flow and Market Return Volatility*, 32 J. BANKING & FIN. 2111, no. 10 (2008).

⁴⁰⁵ See e.g., Alex Edmans, *supra*. The authors find that mutual fund investor flows lead to pressure on the price of underlying securities, which may in turn affect the probability of takeover of the firm issuing the security. Also see Derrien, François et. al., *Investor Horizons and Corporate Policies*, 48 J. FIN. & QUANTITATIVE ANALYSIS 1755 no. 6 (2013). Also see Norli, Øyvind et. al., *Liquidity and Shareholder Activism*, 28 REV. FIN. STUD. 486 (2015). Also see B. Espen Eckbo et. al., *Are Stock-Financed Takeovers Opportunistic?* 128 J. FIN. ECON. 443 (2018).

⁴⁰⁶ See Han Xiao, *The Economics of ETF Redemptions* (Apr. 10, 2022), available at <https://ssrn.com/abstract=4096222> (retrieved from SSRN Elsevier database).

⁴⁰⁷ See Johan Sulaeman & Kelsey D. Wei, *Sell-Side Analysts and Stock Mispricing: Evidence From Mutual Fund Flow-Driven Trading Pressure*, 65 MGMT. SCI. 5427 no. 11 (2019).

⁴⁰⁸ See Elizabeth Berger, *Selection Bias in Mutual Fund Fire Sales* (Apr. 18, 2021), available at <https://ssrn.com/abstract=3011027> (retrieved from SSRN Elsevier database). See also Malcolm Wardlaw, *Measuring Mutual Fund Flow Pressure as Shock to Stock Returns*, 75(6) J. FIN. 3221 (2020). See also Aleksandra and Rüdiger Weber, *Money in the Right Hands: The Price Effects of Specialized Demand* (Jan. 27, 2022), available at <https://ssrn.com/abstract=4022634> (retrieved from SSRN Elsevier database). Also see Simon Schmickler, *Identifying the Price Impact of Fire Sales Using High-Frequency Surprise Mutual Fund Flows* (Jul. 8, 2020) available at <https://ssrn.com/abstract=3488791> (retrieved from SSRN Elsevier database).

We recognize that the proposed rules may not address all of the mechanisms that amplify dilution in the mutual fund sector, such as system-wide market stress, misaligned incentives of fund managers and investors, or stale information used for pricing of funds' portfolio holdings. However, even if these dilution-amplification mechanisms were not present, several factors may inhibit mutual fund managers' ability to allocate trading costs to transacting investors by using currently available swing pricing. First, as discussed above, funds generally do not have complete information regarding their order flows at the time the NAV is struck, which may restrict the ability to operationalize swing pricing. These U.S.-market specific operational impediments cannot be mitigated by any single fund, which presents a collective action problem. Second, even if funds were currently able to obtain complete flow data prior to striking their NAVs, funds may be hesitant to implement swing pricing to the extent that some investors are averse to bearing the full costs of their transactions via swing pricing, even if it is in the best interest of fund shareholders overall, or because investors in U.S. funds are unfamiliar with swing pricing.⁴⁰⁹ In addition, there may be a stigma attached to being the first fund to implement swing pricing. To the extent that such a stigma effect is present in relation to swing pricing, it may deter investors from choosing funds that could implement swing pricing under the optional approach, and that could be a reason why no fund currently chooses to implement swing pricing. Finally, even where fund managers are willing and able to employ liquidity risk management tools, they may not be able to forecast accurately the extent to which episodes of market stress can create challenges for mitigating dilution and meeting shareholder redemptions.⁴¹⁰

⁴⁰⁹ We recognize, however, that open-end funds in other jurisdictions have successfully implemented swing pricing, as discussed in section I.B and accompanying notes 59-63.

⁴¹⁰ See *supra* section I.B for a discussion of how market stress events in Mar. 2020 caused some funds to explore the potential of various emergency relief actions due to the combination of abnormally large redemptions and deteriorating liquidity in markets for underlying fund investments.

4. Affected Entities

a. Registered Investment Companies

The proposed amendments would mainly affect open-end funds registered with the Commission that are ETFs and mutual funds, excluding money-market funds (hereafter “mutual funds”). Based on Form N-CEN filing data as of December 2021, we estimate that there are 11,488 of such funds that hold approximately \$26 trillion in net assets.⁴¹¹ Among these, there are 9,043 mutual funds that hold approximately \$21 trillion in net assets and 2,445 ETFs that hold approximately \$5.1 trillion in net assets.⁴¹² In addition, there are 1,650 mutual funds of funds that hold approximately \$3.1 trillion in net assets,⁴¹³ as well as 150 feeder funds structured as ETFs that hold \$0.6 trillion in net assets.⁴¹⁴

⁴¹¹ We use information reported on Form N-CEN to the Commission for each fund as of Dec. 2021, incorporating filings and amendments to filings received through May 15, 2022. Net assets are monthly average net assets during the reporting period identified on part C.19.a of Form N-CEN, and validated with Bloomberg (for ETFs). Current values are based on the most recent filings and amendments, which are based on fiscal years and are therefore not synchronous. We exclude money market funds identified in Item C.3.g of the Form N-CEN from the count of the affected open-end funds. These exclusions were also applied to the estimates that follow.

We note that the submission on the Form N-CEN is required on a yearly basis. Therefore, these estimates do not include newly established funds that have not completed their first fiscal year and ,therefore, have not filed the Form N-CEN yet, as well as they do not account for the funds that have been terminated since the last Form N-CEN was filed. Therefore, the estimates for the number of funds and their net assets may be over- or under-estimated.

⁴¹² *See id.* ETFs are identified on Form N-CEN, Item C.3.a.i and include 781 in-kind ETFs with average total net assets of \$1.2 trillion. UIT ETFs and exchange-traded managed funds are excluded from ETF totals. Mutual funds are identified as those funds that are not identified as ETFs or money market funds.

⁴¹³ Funds of funds are identified in Item C.3.e. A fund of funds means a fund that acquires securities issued by any other investment company in excess of the amounts permitted under paragraph (A) of section 12(d)(1) of the Act (15 U.S.C. 80a-12(d)(1)(A)), but does not include a fund that acquires securities issued by another investment company solely in reliance on rule 12d1-1 under the Act (CFR 270.12d1-1). We note that at most 29 closed-end funds of funds with net assets of \$10 billion may be affected by the proposal indirectly, to the extent that they hold shares of open-end funds.

⁴¹⁴ *See note 411.* Master-feeder fund means a two-tiered arrangement in which one or more funds (each a feeder fund) holds shares of a single fund (the master fund) in accordance with section 12(d)(1)(E) of the Act (15 U.S.C. 80a-12(d)(1)(E)) or pursuant to exemptive relief granted by the Commission. *See* Instruction 4 to Item C.3 of Form N-CEN. Feeder funds are identified on Form

Different parts of the proposal would affect these two subsets of open-end funds differently. In particular, the proposed amendments to the liquidity management program and certain reporting requirements would affect both mutual funds and ETFs and the proposed hard close and swing pricing requirements and related reporting requirements would affect only mutual funds that are not feeder funds.

We estimate that there are 12,153 funds currently required to file reports on Form N-PORT⁴¹⁵ and there are 2,754 registrants required to file reports on Form N-CEN that would be affected by the proposed reporting requirements.⁴¹⁶ Among these, we estimate that the proposed changes to the reporting requirements on Form N-PORT would also affect 660 closed-end funds and 5 ETFs registered as unit investment trusts with assets of \$0.4 trillion and \$0.7 trillion, respectively.⁴¹⁷

i. Open-End Fund Characteristics

Table 2 below shows the number and total assets of open-end funds by fund type.⁴¹⁸ The largest share (by assets) of funds (approximately 63.5% of assets held by all open-end funds) that would be affected by the proposal are equity funds, including U.S. and international equity

N-CEN, Item C.3.f.ii.

⁴¹⁵ See *infra* note 540 and accompanying text.

⁴¹⁶ See *infra* note 547 and accompanying text.

⁴¹⁷ Closed-end investment companies are identified on Form N-CEN, Item B.6.b. Unit investment trust (UIT) ETFs are funds of Form N-8B-2 registrants identified in Item B.6.g. which are also reported in Item E.

⁴¹⁸ We note that these statistics are estimated with the Morningstar data; therefore, there is a discrepancy in the number of funds estimated based on the Form N-CEN and the number of funds estimated based on the Morningstar data. This discrepancy exists for two reasons. First, Morningstar data may not include all open-end funds due to its voluntary submission nature; as such, the number of funds based on the Morningstar data may be under-estimated. Second, funds may submit their data to Morningstar on a monthly data, while the submission on the Form N-CEN is required on a yearly basis. Therefore, the number of funds estimated based on the Form N-CEN may be under-estimated because it may not include new funds that haven't filed the Form yet.

funds. The second largest type of funds affected by the proposal is taxable bond funds, which on aggregate holds approximately 19.6% of all open-end fund assets.

Table 2. Number of Affected Funds by Fund Type, as of December 2021.⁴¹⁹

CATEGORY	ETFs ¹			Other Open-End (not including MMFs)			Total		
	# of Funds	Assets, \$ trln	% of Total Assets	# of Funds	Assets, \$ trln	% of Total Assets	# of Funds	Assets, \$ trln	% of Total Assets
Allocation	90	\$0.03	0.37%	377	\$1.58	7.59%	467	\$1.61	5.72%
Alternative	193	\$0.01	0.21%	167	\$0.13	0.64%	360	\$0.15	0.53%
Bank Loan	7	\$0.02	0.26%	53	\$0.10	0.47%	60	\$0.12	0.42%
Commodities	116	\$0.14	1.88%	28	\$0.03	0.16%	144	\$0.17	0.60%
Intern. Equity	507	\$1.10	15.20%	1,108	\$3.18	15.30%	1,615	\$4.29	15.27%
Miscellaneous	246	\$0.14	1.86%	90	\$0.01	0.03%	336	\$0.14	0.51%
Municipal Bond	68	\$0.08	1.13%	546	\$0.98	4.71%	614	\$1.06	3.79%
Nontrad. Equity	33	\$0.02	0.23%	92	\$0.03	0.13%	125	\$0.04	0.15%
Sector Equity	481	\$0.84	11.62%	398	\$0.63	3.02%	879	\$1.47	5.24%
Taxable Bond ²	426	\$1.17	16.06%	1,268	\$4.32	20.77%	1,694	\$5.49	19.55%
US Equity	684	\$3.72	51.18%	1,952	\$9.82	47.18%	2,636	\$13.54	48.22%
TOTAL	2,851	\$7.26	100%	6,079	\$20.82	100%	8,930	\$28.08	100%

⁴¹⁹ Morningstar data, excluding funds of funds, feeder funds, and money market funds. 5 UIT ETFs, with assets of approximately \$0.7 trillion are included in the Morningstar ETF totals.

1. Includes ETFs that are UITs.
2. Excludes bank loan funds.

The proposal would disproportionately affect open-end funds that hold less liquid investments. Among the investments classified by open-end funds in December 2021, \$27.3 trillion of all investments were reported as highly liquid, \$441 billion of all investments were reported as moderately liquid, \$276 billion of all investments were reported as less liquid, and \$198 billion of all investments were reported as illiquid. Among the investments reported as less liquid, 71% (\$194 billion) are bank loan interests, 10% (\$26 billion) are debt securities, 9% (\$25 billion) are equities, and 6% (\$17 billion) are mortgage-backed securities.⁴²⁰ Therefore, we believe that the proposal to remove the less liquid category would primarily affect open-end funds that hold bank loan interests. As of December 2021, there are 746 open-end funds that classified approximately \$204 billion in bank loan interests, which represents approximately 0.7% of all open-end fund investments classified,⁴²¹ and makes up approximately 15% of the bank loan market.⁴²² Among these bank loan interests, 95% were reported as less liquid. We recognize that some open-end funds have large concentrations in bank loan interests and are typically referred to as “bank loan” funds. As shown in Table 2 above, as of December 2021, there are 53 bank loan funds that hold approximately 0.5% of total open-end fund assets.

The proposal would also disproportionately affect open-end funds that hold investments whose fair value is measured using an unobservable input that is significant to the overall

⁴²⁰ In addition to these, a smaller number of other categories are classified as less liquid investments.

⁴²¹ Source: Form N-PORT. Loan investments are identified via Form N-PORT, Item C.4.a and liquidity classifications are from Form N-PORT, Item C.7.

⁴²² See Leveraged Loan Primer, *supra* note 99 (stating that the S&P/LSTA Loan Index, which is used as a proxy for market size in the U.S., totaled approximately \$1.375 trillion as of Feb. 2022).

measurement.⁴²³ We estimate that, as of December 2021, 2,006 open-end funds reported \$76.5 billion in investments that were valued using unobservable inputs that are significant to the overall measurement, which is approximately 0.27% of all open-end fund assets.⁴²⁴ Among these, \$16.9 billion were classified as highly liquid investments and \$2.1 billion as moderately liquid investments by 541 funds.⁴²⁵ In addition, \$7.8 billion were classified into less liquid category and \$49.8 billion were classified into the illiquid category.

ii. Open-End Fund Flows

To inform our understanding of historical redemption and subscription patterns, we analyzed daily fund flow data during the period between January 2009 and December 2021.⁴²⁶ Table 3 below shows net fund flow percentiles pooled across time and funds. Figure 6 below shows the time series of daily fund flow percentiles for equity and fixed income funds, showing 1st, 5th, 50th, 95th, and 99th percentiles of fund flows for each day. Similarly, Figure 7 shows the

⁴²³ *See supra* note 111.

⁴²⁴ Source: Form N-PORT. The fair value hierarchy for an investment are identified on Form N-PORT, Item C.8., and liquidity classifications are identified on Form N-PORT, Item C.7. We observed that the investments classified as highly liquid that were Level 3 investments primarily were mortgage-backed securities.

⁴²⁵ *Id.*

⁴²⁶ Data source: Morningstar Fund Flow Data. We restrict our analysis to funds that have a “Global Broad Category Group” of Equity or Fixed Income because we believe the data for other types of funds (*e.g.*, Alternative and Commodity funds) contain more extreme values that may be spurious. We restrict our analysis to include fund flow data starting 2009. While some Morningstar data is available for 2008, we have not included that data in our historical flow analyses because of gaps in the 2008 data (*e.g.*, the 2008 dataset covers a more limited set of funds). We trim outliers from the dataset by restricting outflows from a fund to be no more than 100% of AUM and inflows to be no more than 300% of AUM on a given day or 1000% of AUM for a given week when analyzing weekly flows. For daily flows, we determine the flow percentage by dividing dollar flows on date T by total net assets on date T. This assume that total net assets on a given day do not account for that day’s flows. Similarly, for weekly flows, we aggregate by business week, summing dollar flows over the course of the week and dividing by the first available day’s net assets in that week. Making the opposite assumption, that total net assets on a given day do incorporate that day’s flows, does not significantly alter our results.

time series of weekly fund flow percentiles for equity and fixed income funds, showing the 1st, 5th, 50th, and 95th, and 99th percentiles of fund flows for each week.

Table 3 shows, for example, that weekly outflows exceed roughly 7% in one out of one hundred fund-week observations and that weekly outflows exceed 1.3% in five out of one hundred observations.⁴²⁷ To help put these figures in context statistically, we see that the fund flow distribution exhibits heavy left (and right) tails relative to the normal distribution. That is, events such as outflows of 6.6% should occur far fewer than one out of one hundred times if fund flows were normally distributed. Similarly, events such as inflows of 8.3% should occur far fewer than one out of one hundred times if fund flows are normally distributed.

Whereas Table 3 looks at percentages across all funds and days or weeks, Figure 6 shows the cross-section of daily fund flows at each point in time and breaks up the fund universe into fixed income and equity funds. Figure 6 shows that the dispersion of flows exhibits significant variation; there are times when percentiles widen out considerably, even during non-stressed market conditions.⁴²⁸ Times of substantial flows into bond funds do not necessarily correspond to flows into equity funds. What this implies is that looking at the distributions separately may reveal greater dispersion, as flows across the sectors diversify each other. For equities, a number of time periods exhibit cross-sections in which the lowest percentile of funds have daily outflows in excess of 10%. For bond funds, flows of this magnitude are rarer. However, such episodes do

⁴²⁷ See *supra* note 426 for a description of how the data set was constructed.

⁴²⁸ See *id.* Daily flows for equity funds have notable seasonal spikes that tend to occur during the month of Dec., independent of market stress events. These flow spikes may be attributable to any year-end rebalancing of investors from, *e.g.*, underperforming funds into outperforming funds; to year-end distributions that are characterized as flows by Morningstar and subsequently re-invested; or to spurious or errant data points. We believe that latter is less likely because these seasonal spikes are still evident when the data is aggregated to the weekly level in Figure 7. To the extent seasonal fund flow spikes are driven by predictable events such as, *e.g.*, capital gains distributions, fund managers are more likely to be able to plan for any impacts of such events on a fund, include funds that hold investments with lower liquidity.

occur for bond funds and correspond with times of broader stress in fixed income markets.

Similarly, Figure 7, which shows weekly flows, also shows that outflows in the lowest percentile of funds of below 10% are not uncommon, both in bonds and in equities.⁴²⁹ For fixed income funds, both the daily and weekly flow plots in Figures 6 and 7 show that during March 2020, some funds experienced significant outflows, consistent with the aggregate monthly outflows discussed in section I.B.

Table 3. Pooled Fund Flows, as a % of Net Assets.

	Percentile				
	1st	5th	50th	95th	99th
Daily fund flows	-1.60%	-0.30%	0%	0.40%	2%
Weekly fund flows	-6.60%	-1.30%	0%	1.80%	8.30%

⁴²⁹

See id.

Figure 6. Daily Equity and Fixed Income Fund Flows over Time, % of Net Assets.

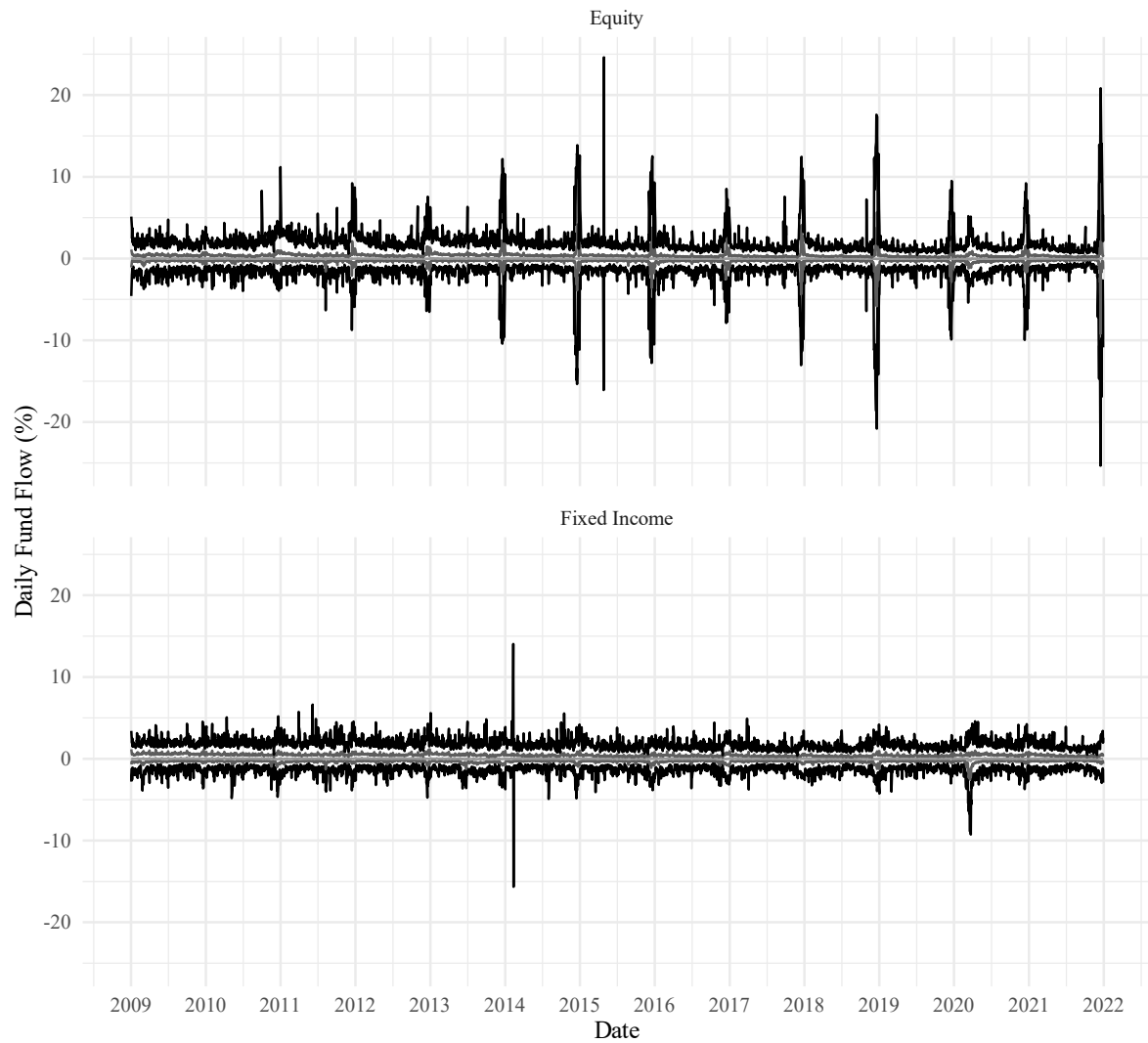
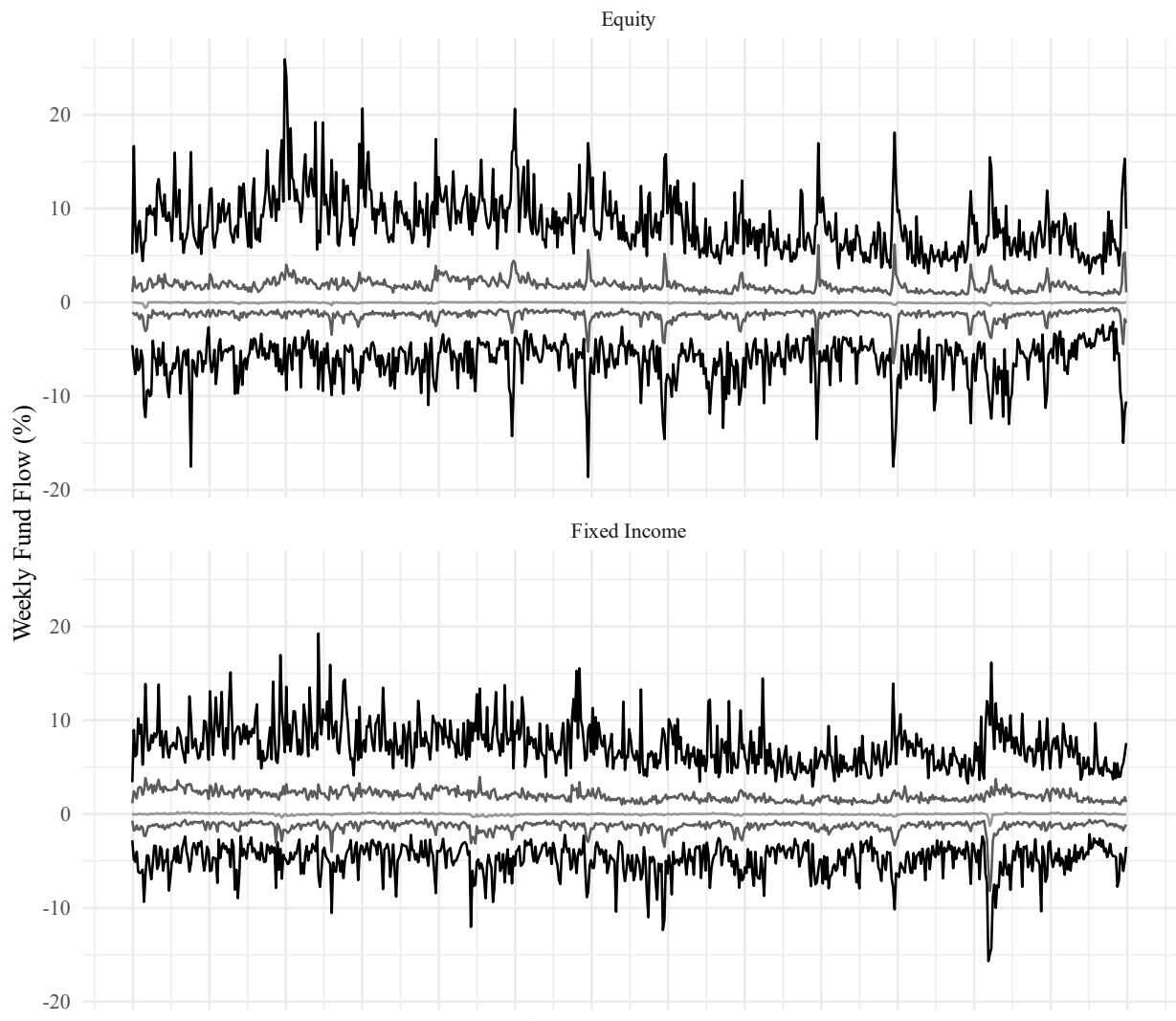


Figure 7. Weekly Equity and Fixed Income Fund Flows over Time, % of Net Assets.



b. Fund Intermediaries

As discussed above, the proposed hard close requirement would affect a large group of intermediaries. Specifically, under the hard close requirement, intermediaries generally would need to submit orders for fund shares earlier than they currently do for those orders to receive that day's price. As discussed in greater detail below, this may affect all market participants sending orders to relevant funds, including broker-dealers, registered investment advisers, retirement plan recordkeepers and administrators, banks, insurance companies, and other registered investment companies.

i. Broker-Dealers

Based on an analysis of Financial and Operational Combined Uniform Single (FOCUS) Reports filings as of December 2021, there were approximately 3,508 registered broker-dealers with over 240 million customer accounts.⁴³⁰ In total, these broker-dealers have over \$5 trillion in total assets as reported on Form X-17A-5.⁴³¹ More than two-thirds of all broker-dealer assets and just under one-third of all customer accounts are held by the 21 largest broker-dealers, as shown in Table 4.⁴³² Of the broker-dealers registered with the Commission as of December 2021, 434 broker-dealers were dually registered as investment advisers.⁴³³

⁴³⁰ The data is obtained from FOCUS filings as of Dec. 2021. There may be a double-counting of customer accounts among, in particular, the larger broker-dealers as they may report introducing broker-dealer accounts as well in their role as clearing broker-dealers. Customer Accounts includes both broker-dealer and investment adviser accounts for dual-registrants.

⁴³¹ Assets are estimated by Total Assets (allowable and non-allowable) from Part II of the FOCUS filings (Form X-17A-5 Part II and Part IIA, *available at* https://www.sec.gov/files/formx-17a-5_2.pdf) and correspond to balance sheet total assets for the broker-dealer. The Commission does not have an estimate of the total amount of customer assets for broker-dealers because that information is not included in FOCUS filings. The Commission estimates broker-dealer size from the total balance sheet assets as described above.

⁴³² Approximately \$4.97 trillion of total assets of broker-dealers (98.7%) are at broker-dealers with total assets in excess of \$1 billion.

⁴³³ This estimate includes the number of broker-dealers who are also registered with either the Commission or a state as an investment adviser.

Table 4. Number of Broker-Dealers by Total Assets, as of December 2021.

Size of Broker-Dealer (Total Assets)	Total Num. of BDs	Cumulative Total Assets (\$ bln)	Cumulative Num. of Customer Accounts
>\$50 billion	21	3,682	75,808,084
\$1 billion to \$50 billion	124	1,581	153,243,391
\$500 million to \$1 billion	30	22	518,545
\$100 million to \$500 million	147	31	9,559,082
\$10 million to \$100 million	532	19	128,669
\$1 million to \$10 million	1,065	4	885,269
<\$1 million	1,589	0.5	10,854
Total	3,508	5,338	240,153,894

ii. Retirement Plans

Retirement plans and accounts are major holders of mutual funds. We estimate that, as of 2022Q1, approximately 54% of non-MMF mutual fund assets were held in retirement accounts, which include employer-sponsored defined contribution (“DC”) plans and individual retirement accounts (“IRAs”).⁴³⁴ At year-end 2021, mutual funds accounted for 58% (\$6.4 trillion) of DC plan assets and 45% (\$6.2 trillion) of IRA assets.⁴³⁵ Among DC plans, 401(k) plans held \$5 trillion of assets in mutual funds, 403(b) plans held \$670 billion, other private-sector DC plans held \$539 billion, and 457 plans held \$177 billion.⁴³⁶ Combined, the mutual fund assets held in DC plans and IRAs at the end of 2021 accounted for 32% of the \$39.4 trillion U.S. retirement market.⁴³⁷

⁴³⁴ See Inv. Co. Inst. (ICI), *The U.S. Retirement Market, First Quarter 2022 (June)*, Table 28, available at https://www.ici.org/system/files/2022-06/ret_22_q1_data.xls.

⁴³⁵ See ICI, *2022 Investment Company Factbook*, Chapter 8, available at https://www.icifactbook.org/pdf/2022_factbook.pdf.

⁴³⁶ *Id.*

⁴³⁷ *Id.*

According to a recent study, DC plans vary in size by both number of participants and plan assets.⁴³⁸ For example, as shown in the Table 5 below, among 401(k) plans, 94.1% of plans had less than \$10 million of plan assets. While the number of plans with plan assets over \$1 billion is relatively small, these largest plans manage approximately 47.8% of all assets held in 401(k) plans.

Table 5. Distribution of 401(k) Plans by Plan Assets, 2018.

Plan assets	Plans		Participants		Assets	
	<i>Number</i>	<i>Percent</i>	<i>Thousands</i>	<i>Percent</i>	<i>Billions of dollars</i>	<i>Percent</i>
Less than \$1M	343,108	58.5%	6,007.5	8.4%	\$107.1	2.1%
\$1M to \$10M	208,789	35.6	13,660.6	19.1	620.7	12.2
>\$10M to \$50M	26,458	4.5	9,894.5	13.9	532.4	10.4
>\$50M to \$100M	3,564	0.6	4,808.0	6.7	247.1	4.8
>\$100M to \$250M	2,407	0.4	6,744.8	9.5	374.7	7.3
>\$250M to \$500M	1,034	0.2	5,395.1	7.6	362.1	7.1
>\$500M to \$1B	603	0.1	4,763.9	6.7	424.1	8.3
More than \$1B	659	0.1	20,073.4	28.1	2,439.7	47.8
All plans	586,622	100.0	71,347.7	100.0	5,108.0	100.0

The same study shows that mutual funds held 43% of private-sector 401(k) plan assets in the sample in 2018. CITs held 33% of assets, guaranteed investment contracts (GICs) held 7%, separate accounts held 3%, and the remaining 14% were invested in individual stocks (including company stock), individual bonds, brokerage, and other investments.⁴³⁹ While mutual funds

⁴³⁸ See BrightScope & Investment Company Institute, 2021, *The BrightScope/ICI Defined Contribution Plan Profile: A Close Look at 401(k) Plans, 2018* (“BrightScope/ICI Report”), at 7, Ex. 1.2, available at www.ici.org/files/2021/21_ppr_deplan_profile_401k.pdf. These data is limited to 401(k) plans covered in the Department of Labor Form 5500 research file, as we do not have data on the size distribution for other types of DC plans. We note, however, that 401(k) plans represent approximately 70.4% of all DC plan assets. Investment Company Institute, “The US Retirement Market, First Quarter 2022” (June), Table 6, available at https://www.ici.org/system/files/2022-06/ret_22_q1_data.xls.

⁴³⁹ *Id.*

accounted for at least 55% of assets in plans with less than \$1 billion of plan assets, they accounted for only 23% of assets in plans with more than \$1 billion of plan assets (dominated by CITs that accounted for 49% of plan assets).⁴⁴⁰

iii. Retirement Plan Recordkeepers

According to one source, as of September 2021, the total DC recordkeeping assets were approximately \$9.7 trillion, as shown in Table 6 below.⁴⁴¹ The largest recordkeeper managed approximately 33% of all recordkeeping assets, and the 10 largest recordkeepers managed approximately 83% of all recordkeeping assets.

Table 6. Largest Retirement Plan Recordkeepers, as of September 30, 2021.

Recordkeeper	Recordkeeping Assets, \$ billion
Fidelity Investments	\$3,169
Empower	\$1,048
TIAA-CREF	\$710
Vanguard Group	\$702
Alight Solutions	\$545
Voya Financial	\$499
Principal Financial Group	\$449
Bank of America	\$346
Prudential Financial	\$283
T. Rowe Price Group	\$268
All others	\$1,676
TOTAL	\$9,695

⁴⁴⁰ *Id.*

⁴⁴¹ Larry Rothman, *Large Record Keepers Keep Dominating Market*, PENSIONS & INVESTMENTS, (Apr. 11, 2022), available at <https://www.pionline.com/interactive/large-record-keepers-keep-dominating-market>.

c. Other Affected Entities

A significant portion of mutual fund orders are processed through NSCC's Fund/SERV platform: in 2021 Fund/SERV processed 261 million mutual fund transactions with the aggregate value of \$8.5 trillion,⁴⁴² which we estimate to be at least 36.8% of the value of all mutual fund transactions.⁴⁴³ A part of the platform, referred to as Defined Contribution Clearance & Settlement, focuses on purchase, redemption, and exchange transactions in defined contribution and other retirement plans. This service handled a volume of nearly 154 million transactions in 2021.⁴⁴⁴

Mutual funds may employ the services of third-party or affiliate transfer agents. We estimate that, as of March 2022, there are 99 mutual fund transfer agents that serve both open- and closed-end funds for the 2021 reporting year.⁴⁴⁵

⁴⁴² See Depository Trust and Clearing Corporation (DTCC), *2021 Annual Report*, pg. 57, available at https://www.dtcc.com/~/_media/files/downloads/about/annual-reports/DTCC-2021-Annual-Report.

⁴⁴³ We do not have data to calculate the value of all mutual fund transactions directly. Therefore, we use ICI data on long-term mutual funds' portfolio purchases and sales as a proxy for the total value of transactions in mutual fund shares, assuming that a significant portion of portfolio purchases reflects investor subscriptions and a significant portion of portfolio sales reflects investor redemptions. We estimate this value to be \$27.07 trillion by adding the total value of purchases and the total value of sales for long-term mutual funds. See ICI, *2022 Investment Company Factbook*, Table 31, available at <https://www.icifactbook.org/22-fb-data-tables.html>.

We estimate the share of the value of mutual fund transactions processed by Fund/SERV as the aggregate value reported by Fund/SERV divided by the long-term mutual funds' portfolio purchases and sales. We recognize that mutual funds may effect portfolio purchases and sales for purposes other than investing new cash from subscribing investors and meeting investor redemptions, such as portfolio rebalancing. Therefore, the total value of transactions in long-term mutual fund shares may be overestimated. Accordingly, the share of mutual fund transaction value processed by Fund/SERV may be underestimated. We also recognize that the aggregate value reported by Fund/SERV may or may not include the value of mutual fund transactions via DCC&S. To the extent that the reported value excludes such transactions, the share of mutual fund transaction value processed by Fund/SERV may be further underestimated. We solicit comments on these statistics.

⁴⁴⁴ See *id.*

⁴⁴⁵ Mutual fund transfer agents are those transfer agents that answered with a positive value for any of Items 5(d)(iii-iv), 6(a-c)(iii-iv), or 10(a) on a Form TA-2. We note that the identified mutual fund transfer agents may serve both open-end and closed-end funds. To the extent that some of

We expect that a range of other entities would be affected by the proposal:

- Mutual fund order processing entities (besides Fund/SERV);
- Mutual fund liquidity service providers;
- Other third-party service providers.

We do not currently have data on the number and size of these entities. We solicit comments on these statistics. In addition, we solicit comment on what other entities would be affected by the proposed amendments.

C. Benefits and Costs of the Proposed Amendments

1. Liquidity Risk Management Program

The proposed rule would make several changes to the liquidity risk management framework adopted in 2016. In particular, it makes changes to (1) the manner and frequency in which funds must classify each of their portfolio holdings into one of several liquidity buckets; (2) the minimum amount a fund must hold in the highly liquid investment category; (3) the treatment of margin and collateral for certain derivatives transactions, for purposes of the highly liquid investment minimum and 15% limit on illiquid investments, as well as the treatment of a fund's liabilities for purposes of the highly liquid investment minimum; and (4) the definition of the liquidity buckets, including illiquid investments. Whereas the existing rule provides funds with a considerable level of discretion regarding how fund investments are classified, as well as regarding the determination of a highly liquid investment minimum, the proposed rule would reduce that discretion and is intended to prepare funds for future stressed conditions by improving the quality of liquidity classifications by preventing funds from over- or under-estimating the liquidity of their investments, including in times of stress. The proposed rule is

the identified transfer agents only serve closed-end funds, the number of affected transfer agents may be over-estimated.

also intended to provide classification standards that are consistent with more effective practices the staff has observed across funds. As a result, we expect enhanced liquidity across open-end funds and lower risk of a fund not being able to meet shareholder redemptions without significant investor dilution, which could reduce the risk of runs arising from the first-mover advantage. Thus, the proposed amendments may improve overall market resiliency.

The proposed amendments to the liquidity risk management program would impose costs on open-end funds. We estimate, for Paperwork Reduction Act purposes, that the modification of existing collection of information requirements of rule 22e-4 will result in an annual cost increase of \$7,101 per fund.⁴⁴⁶ In addition, funds may experience other costs related to changing business practices, computer systems, integrating new technologies, etc. We are not able to quantify many of these costs for several reasons. First, we do not have granular data on the current systems, business practices, and operating costs of all affected parties, which would allow us to estimate how their systems and practices would change along with any associated costs. Second, we cannot predict how many funds would respond to the proposed changes to the liquidity risk management program by changing their portfolio allocation in order to be compliant with the proposed highly liquid investment minimum and the 15% limit on the illiquid investments and how many funds may choose to convert to the closed-end form or cease to exist. Finally, we cannot predict how many investors would decide to exit open-end funds in a response to the portfolio allocation changes that funds may implement as a result of the proposed amendments to the liquidity risk management. We request comment on these and other potential costs of the proposed changes to the liquidity risk management program, particularly any dollar estimates of the costs that funds and other affected parties will incur as a result of the rule.

⁴⁴⁶ See *infra* section IV.B.

a. Methodology for Liquidity Classifications

The proposed rule would substitute the fund’s reasonably anticipated trade size determination with a stressed trade size (“STS”) determination, with an STS being a set percentage of the fund’s net assets. The proposed rule would also prescribe specific methods to determine when a price change should be considered “significant” and remove the funds’ ability to perform liquidity classification at the asset-class level.

Generally, the three proposed amendments to the liquidity classification methodology may help funds to prepare better for future stress events or periods of high levels of redemptions by improving the quality of liquidity classifications via the requirement for more frequent classification and making the methodology more disciplined, objective, and consistent across funds. This, in turn, may help funds meet investor redemptions without significant trading costs, potentially decreasing dilution risk. We recognize, however, that the proposed liquidity classification methodology would still be dependent on the size of an investment position within a fund’s portfolio relative to the size of the market for the investment. Therefore, although funds would follow a more standardized methodology for liquidity classifications, the same investment could be classified differently by different funds, depending on how much of this investment a fund holds, thereby reducing comparability of liquidity classifications between different funds. The specific economic effects for each of three proposed amendments are discussed below.

i. Replacing Reasonably Anticipated Trade Size with Stressed Trade Size

Funds may currently use their subjective judgment when determining the meaning and calculation of reasonably anticipated trade size. The proposed requirement to replace the reasonably anticipated trade size with the STS as a set percentage of a fund’s net assets would decrease such subjectivity because funds would no longer have discretion in determining the

amount of each investment they should assume will be sold or disposed of in determining the liquidity classifications. A stricter methodology for liquidity classifications of funds' investments may be more objective and consistent, which would benefit investors by improving funds' ability to meet investor redemptions without significant levels of dilution in both normal and stressed market conditions. In particular, requiring a fund's classification model to assume the sale of the proposed stressed position size would better emulate the potential effects of stress on the fund's portfolio and help better prepare a fund for future stress or other periods where the fund faces higher than typical redemptions. In addition, to the extent that the proposed STS would be simpler and more objective than the determination of a reasonably anticipated trade size, all else equal, the operational burden or costs that funds currently experience in making liquidity classifications may be reduced.

We also propose to set the STS minimum of 10%. Based on an analysis of historical weekly fund flows for equity and fixed income funds, we estimate that a random fund in a random week has approximately a 0.5% chance of experiencing redemptions in excess of the 10% STS, and there were 3.4% of weeks where more than 1% of funds experienced net redemptions exceeding 10%.⁴⁴⁷ Although this data analysis implies that funds infrequently experience redemptions of 10% or more, we believe that the 10% STS has the advantage of simulating a stress event and would better prepare funds to accommodate redemptions during such events. Although funds could consider events larger than 10% for their STS calculation voluntarily, we believe that the proposed requirement would achieve a more consistent

⁴⁴⁷ An analysis of historical Morningstar weekly fund flow data for equity and fixed income funds from 2009 through 2021 shows that the 1st percentile flow is approximately -6.6% while the 5th percentile flow is approximately -1.3%. The same analysis shows that the 10% STS corresponds to approximately the 0.5th percentile of pooled weekly fund flows. The same analysis shows that if the 5th percentile fund flow is computed for each week, it never exceeds the 10% STS. If the 1st percentile fund flow is computed for each week, it exceeds the 10% STS for approximately 3.4% of the weeks in the sample.

methodology for liquidity measurement across funds. However, we recognize that specific funds may experience varying costs and benefits associated with the 10% STS. For example, two funds with comparable levels of AUM but with underlying investments that have different liquidity characteristics may experience stress at different levels of redemptions. For example, a large-cap equity fund may not experience stress at the 10% level of redemptions, whereas a fixed income fund with comparable AUM might. As such, the extent to which investors of a given fund benefit from the 10% STS will vary based on the liquidity of its underlying investments.⁴⁴⁸

Funds and their investors may incur costs as a result of replacing reasonably anticipated trade size with the STS. To the extent that funds would assign a higher liquidity category under the current reasonably anticipated trade size approach compared to the liquidity category that would be assigned using the proposed STS, the proposed amendment may result in funds rebalancing their portfolios in order to meet the highly liquid investment minimum and to comply with the limit on the illiquid investments. As such, a fund either may have to increase its holdings of highly liquid investments or decrease its holdings of moderately liquid and illiquid investments. As a result, the risk-return profile of the fund's portfolio would change towards more liquid and less risky investments that may have lower returns. To the extent that such reallocation would result in deviations from a benchmark return (if any), funds may experience higher tracking error.⁴⁴⁹ In addition, to the extent that investors seek particular risk exposures and returns that would be difficult for the affected funds to provide under the proposed amendments, the proposed amendments may drive them towards other investment vehicles that do not face daily redemptions, such as closed-end funds, or to other vehicles or means of investing that are

⁴⁴⁸ See also section III.B.4.a.ii for discussion of fund flows based on fund type.

⁴⁴⁹ Tracking error is the difference between the fund's return and that of the benchmark which measures how closely a fund replicates the returns of the identified benchmark.

not subject to the liquidity rule, such as separately managed accounts or CITs. However, to the extent that these other vehicles or means of investing do not offer the same investment strategies or do not provide the same benefits and protections as the open-end funds to investors, investors may find such investment avenues less favorable compared to open-end funds. As a result, the set of investment options available to investors with particular risk-return preferences may decrease.

ii. Determining a Significant Change to Market Value

Under the current rule, a fund may determine value impact (a “significant price change”) in a variety of ways, including methods that depend on the type of asset, or vendor, model, or system used. The proposed amendments would establish a uniform standard of how funds should determine what constitutes a significant price change, which would improve consistency and objectivity of liquidity classification methodologies across mutual funds. To the extent that some funds may currently use definitions of a significant price change that result in under-estimation of the price impact and classification of investments in more liquid categories, the proposal would limit the extent to which funds are able to do so. This, in turn, would help funds to prepare better for potential stress events and potentially reduce the risk of not being able to meet investors’ redemptions without incurring significant trading costs, thereby decreasing dilution risk. The proposed amendment may also decrease ongoing costs related to the liquidity classification process, all else equal, by reducing the number of determinations a fund must perform during the liquidity classification process.

For shares listed on a national securities exchange or a foreign exchange, the proposed rule would require funds to use an average daily trading volume threshold of 20% to determine

whether a trade will cause a significant price change.⁴⁵⁰ Funds will have less discretion in this circumstance than under the existing rule. This should result in a more robust and consistent liquidity classification process that would help ensure that the liquidity classifications for all holdings of a certain investment of particular size are classified in the same manner across funds which, in turn, may help all funds to prepare better for periods of high investor redemptions.

For any investments other than shares listed on a national securities exchange or a foreign exchange, the proposed rule would define a significant change in market value as any sale or disposition that a fund reasonably expects would result in a decrease in sale price of more than 1%, which is the measure used in several commonly employed liquidity models.⁴⁵¹ This alternative measure is proposed because we recognize that average daily trading volume in, for example, a single bond issue would not be representative because it does not represent the full pool of liquidity available for a debt security, since bonds are split into many different issues and differ from common shares, where volume is concentrated because there generally is only one class of shares for each issuer.

Although not all liquidity classification models currently specify a price decrease explicitly as the determination for a significant change in market value, we believe it would improve the quality of classifications to require a more objective principle. However, the proposed rule may still result in some heterogeneity in how funds classify otherwise similar holdings because funds and liquidity classification vendors would still be able to choose which price impact model to use for their classifications,⁴⁵² depending on the assumptions of the fund or

⁴⁵⁰ See *supra* section II.A.1.a.ii.

⁴⁵¹ *Id.*

⁴⁵² There are various estimation techniques for price impact (market impact), such as those that use linear models, power law models, log models, I-STAR model, and other. See, e.g., Albert S. Kyle, *Continuous Auctions and Insider Trading*, 53 *ECONOMETRICA*, 1315 (1985), Robert Almgren et. al., *Direct Estimation of Equity Market Impact*, 18 *RISK* 58 (2005); Elia Zarinelli et.

a liquidity classification provider. As a result, liquidity classifications for the same investment of the same size may vary across funds, to the extent that funds or liquidity classification vendors have different theoretical assumptions about the same investment. For example, it may be difficult to choose a price impact model for assets that do not have readily available recent price information, and funds may have to use subjective judgment in determining the sale amount that constitutes a significant change in market value. To the extent that such subjectivity could still result in over-estimation of liquidity of funds' investments, the potential increase in the ability of funds to meet investors' redemptions without significant dilution under the proposed rule may be lower than anticipated. In addition, to the extent that the reference price against which the price impact is calculated is stale for some investments (*i.e.*, investments that are traded infrequently), the estimated trading volume that would not cause a significant price change may be less accurate for such investments.

iii. Removing Asset Class Classification

The proposal to remove funds' ability to perform liquidity classifications at the asset-class level may improve the quality of liquidity classifications by reducing the potential of funds over- or under-estimating the liquidity of their investments. Currently, because the definitions of asset classes are not consistent across funds in terms of their scope and granularity, an investment (of the same size) could be classified as belonging to different asset classes by

al., Beyond the Square Root: Evidence for Logarithmic Dependence of Market Impact on Size and Participation Rate, MARKET MICROSTRUCTURE AND LIQUIDITY no. 2 (Dec. 5, 2014) available at <https://arxiv.org/pdf/1412.2152.pdf>; Bence Toth, *et.al, Anomalous Price Impact and the Critical Nature of Liquidity in Financial Markets* (working paper, Nov. 1, 2011), available at <https://arxiv.org/abs/1105.1694>; Robert Kissell *et. al.*, OPTIMAL TRADING STRATEGIES: QUANTITATIVE APPROACHES FOR MANAGING MARKET IMPACT AND TRADING RISK, (AMACON 2003); Saerom Park *et. al.*, *Predicting Market Impact Costs Using Nonparametric Machine Learning Models* (research article Feb. 29, 2016), available at <https://journals.plos.org/plosone/article?id=10.1371/journal.pone.0150243>.

different funds. Moreover, if a classification is performed on an asset-class basis, changes in liquidity profiles of individual investments may not be accounted for in the way these investments are classified, which may lead to an over- or under-estimation of funds' investments' liquidity. In contrast, under the proposal, funds would more specifically gauge the liquidity of each investment, which could strengthen their liquidity management, potentially decreasing the risk of not being able to meet investors' redemptions without significant costs that could arise from an over-estimation of fund's investments' liquidity. To the extent that the liquidity classifications of investments within the same asset class would not differ between asset-level and investment-level classifications, the proposal to remove funds' ability to perform liquidity classifications on the asset-class level may increase ongoing operational burden for funds that rely on this classification method without any commensurate benefits. However, the asset-class level classification is not expected to be compatible with other proposed changes to the liquidity risk management program, such as the value impact standard. Specifically, a fund would not be able meaningfully to apply a standard based on average daily trading volume or a price decline in a given investment at the asset class level because the average trading volume, or market depth generally, can vary from investment to investment even within the same asset class.

b. Removal of the Less Liquid Category

We propose to eliminate the less liquid investment category. Currently, investments are defined as less liquid if it is reasonably expected that they could be sold within seven calendar days but the sale is reasonably expected to settle in more than seven days. Under the proposal, investments that do not sell and settle within seven calendar days without significant price change would be classified as illiquid. We believe that the proposal to remove the less liquid

category would primarily affect open-end funds that hold bank loan interests, as the most common type of investment in this category is bank loan interests.⁴⁵³

On the one hand, recent research suggests that during the period between March 1 and 23 of 2020, bank loan mutual funds experienced outflows of approximately 11% of their AUM; substantially higher than high-yield bond funds (which investors may consider close substitutes to bank loan funds) and all other types of funds.⁴⁵⁴ Moreover, these outflows had longer duration, which suggests greater risk of investor runs in these funds. On the other hand, other research⁴⁵⁵ examines the resilience of bank loan funds to liquidity shocks and does not find substantial evidence of lower liquidity among bank loan funds compared to corporate bond funds generally. However, the risk of not being able to meet investor redemptions within seven days without significant costs may be higher for bank loan funds compared with other types of funds, as the trading costs related to bank loan fund outflows (including costs associated with obtaining financing to bridge the settlement gap) may be larger than those of other types of funds. Specifically, as noted by LSTA, over the course of the first three weeks of March of 2020, bid-ask spreads for bank loans widened by 288 basis points to a record 422 basis points.⁴⁵⁶ In

contrast, recent research shows that, between February 3 and March 20 of 2020, high-yield

⁴⁵³ See *supra* section III.B.4.a.

⁴⁵⁴ Nicola Cetorelli et. al., *Outflows From Bank-Loan Funds During COVID-19*, Federal Reserve Bank of New York, LIBERTY STREET ECONOMICS (June 16, 2020), available at <https://libertystreeteconomics.newyorkfed.org/2020/06/outflows-from-bank-loan-funds-during-covid-19/>. See also Ayelen Banegas & Jessica Goldenring, *Leveraged Bank Loan Versus High Yield Bond Mutual Funds*, FIN. & ECON. DISCUSSION SERIES 2019-047 (Board of Governors of the Federal Reserve System, Washington, D.C.), Jun. 2019, (“Banegas/Goldenring paper”) available at <https://www.federalreserve.gov/econres/feds/leveraged-bank-loan-versus-high-yield-bond-mutual-funds.htm>. This paper finds that, as of end of 2018, flows as a share of assets have been larger and more volatile for bank loan funds than for high-yield bond funds.

⁴⁵⁵ Mustafa Emin et. al., *How Fragile Are Loan Mutual Funds?* (working paper, Nov. 18, 2021) available at <https://ssrn.com/abstract=4024592> (retrieved from SSRN Elsevier database).

⁴⁵⁶ See Loan Syndication & Trading Association (LSTA), *March Loan Returns* (April 2, 2020), available at <https://www.lsta.org/news-resources/march-loan-returns-total-12-37>.

corporate bonds' bid-ask spreads widened by an estimated range between 79⁴⁵⁷ and 166⁴⁵⁸ basis points to 102 and 223 basis points respectively.

Moreover, bank loan funds, unlike other funds, experience specific trading costs related to bridging the settlement gap, *i.e.*, the costs related to using financing during the time it takes for a loan trade to settle. Although other types of open-end funds may use bank credit lines, most instruments held by open-end funds do not come with the same level of settlement uncertainty. Because the process of trade settlement for bank loans is not standardized and involves many parties, the settlement process can take longer. Therefore, when an open-end fund sells a bank loan interest, it is possible that the trade will not be settled for an extended amount of time. As shown in Table 7 below, bank loan funds on average use higher amounts of financing via credit lines and use them for longer/shorter period of time on average.

Table 7: Open-End Funds' Use of Credit Lines by Fund Type, as of December 2021.⁴⁵⁹

	Number of Funds	Has Line of Credit	Used Line of Credit	Avg. Credit Line Use	Avg. Number of Days Used
Bank Loan	56	48	9	\$29,411,240	114
Other Categories	8,979	5,462	969	\$8,431,142	24
Total	9,035	5,510	978	\$8,624,210	24

In contrast, high yield bonds primarily have T+2 settlement. Although high yield bonds may have the same or lower liquidity compared to bank loans,⁴⁶⁰ from the perspective of funding

⁴⁵⁷ See Nina Boyarchenko, et. al., *It's What You Say and What You Buy: A Holistic Evaluation of the Corporate Credit Facilities* (working paper no. 8679, Nov. 11, 2020), available at <https://ssrn.com/abstract=3728422> (retrieved from SSRN Elsevier database).

⁴⁵⁸ See Simon Gilchrist, et. al., *The Fed Takes On Corporate Credit Risk: An Analysis of the Efficacy of the SMCCF* (working paper no. 2020-18, Apr. 20, 2021), available at <https://ssrn.com/abstract=3829900> (retrieved from SSRN Elsevier database).

⁴⁵⁹ N-1A RIC credit line usage is from Form N-CEN, and excludes ETFs and MMFs. Data is as of Dec. 2021, incorporating filings received through June 3, 2022.

⁴⁶⁰ See *supra*, note 455. Authors show that, controlling for the fund size and rating, bank loan

investor redemptions, bank loans are less certain to be converted to U.S. dollars within a specific timeframe. As a result, when engaging in financing to bridge the settlement gap, a fund that sells a high-yield bond would likely use the credit line only for two days while a fund that sells a bank loan will have to use it for a longer period. This, in turn, may increase the risk of bank loan funds not being able to meet investor redemptions within seven days without imposing additional financing costs on fund investors, which may increase dilution. Therefore, we believe that a limit on the amount of time a trade is reasonably expected to settle and convert to U.S. dollars to qualify as a non-illiquid investment is intended to promote liquidity in open-end funds and reduce investor dilution from trading costs, including wide bid-ask spreads and the costs related to bridging the gap between the maximum time allowed to meet investor redemptions and prolonged settlement of certain investments.⁴⁶¹

The removal of the less liquid category may also reduce the risk of runs in the open-end fund sector. As discussed above, bank loan funds may be more prone to sector-wide outflows compared to other types of funds due to the low dispersion of returns across bank loan funds (*i.e.*, the correlation of bank loan fund returns is higher relative to the correlation of returns for other types of funds), which may lead to further redemptions and higher investor dilution, and may consequently be amplified by a fund's usage of financing for a prolonged period of time. To the extent that bank loan funds rebalance their portfolios to hold bank loans with shorter settlement times, investor dilution and the risk of runs on bank loan funds may be reduced.

liquidity is similar to or greater than liquidity of similarly rated public bonds. The authors construct two indirect measures of liquidity: the first measure is based on the difference between the transaction prices and net asset values (NAVs) of shares of loan and high yield bond ETFs; the second measure is the perceived liquidity of corporate bonds based on the relationship among cash holdings, flow volatility, and fund holdings. *See also* Sergey Chernenko & Adi Sunderam, *Measuring the Perceived Liquidity of the Corporate Bond Market* (working paper no. 27092, May 2020), available at <https://www.nber.org/papers/w27092>.

⁴⁶¹

See also section II.A.1.b.iii.

Open-end funds may experience costs as a result of this amendment.⁴⁶² First, open-end funds would experience a one-time switching cost to adapt the classification and reporting systems for the removal of the less liquid category, which would be passed on to funds' investors. To the extent that the settlement time for bank loan interests cannot be reduced, these loan interests would have to be reclassified as illiquid. As a result, funds that hold these investments may be required to rebalance their portfolio by divesting from bank loans interests in order to comply with the maximum allowed allocation towards illiquid investments, which may result in both aggregate holdings and individual portfolio concentrations of bank loan interests among open-end funds to be reduced. Such portfolio reallocation may result in one-time switching costs that would be passed on to investors. In addition, to the extent that portfolio concentration of bank loan interests decreases significantly for some bank loan funds as a result of the proposal, these funds' investment strategy would have to be redefined. Moreover, to the extent that some funds would not be able to successfully rebalance their portfolios away from bank loan interests with longer settlement times without losing investors, these funds may cease to exist or may seek shareholder approval to convert to a closed-end form.

Furthermore, to the extent that such portfolio reallocation results in lower fund returns, this may drive investors of these funds to either substitute their investments in open-end bank loan funds to other types of open-end funds or choose other types of funds or investment vehicles that are able to hold higher amounts of bank loan interests. To the extent that these other vehicles or means of investing do not offer the same investment strategies or do not provide the same benefits and protections as the open-end bank loan funds to investors, investors may find such

⁴⁶² We recognize that those funds that primarily hold bank loan interests with shorter settlement times may be less affected by this proposed amendment. For example, loans that are larger in size, more standardized, and more frequently traded, such as those that are a part of S&P/LSTA U.S. Leveraged Loan 100 Index, may have shorter settlement times.

investment avenues less favorable compared to open-end bank loan funds. As a result, the set of investment options available to investors with this particular strategy preference may decrease. This effect may be more pronounced for retail investors who generally have limited access to the bank loan market and to private funds that may hold bank loan interests.

To the extent that investor demand for holding bank loans in a fund structure is high, some funds may choose to restructure as closed-end funds, in order to be able to keep their current holdings of bank loan interests. The funds that choose to do so may experience one-time switching costs related to shareholder votes for the fund conversion, such as costs of preparing and distributing proxy materials and costs associated with the solicitation process.⁴⁶³ In addition, some investors may rush to redeem their shares before the conversion which may increase dilution of the remaining investors.

However, we recognize that while operational constraints may play a role in why settlement times for bank loan interests are prolonged, misaligned incentives of trading parties (such as delayed settlement compensation) and a collective action problem may also be important factors in determining settlement time for bank loan interests.⁴⁶⁴ Therefore, to the extent that it is currently operationally possible to have a shorter settlement time for bank loan interests, and to the extent that non-fund transaction parties would be able to speed up the settlement process at a relatively low cost, open-end bank loan funds may not have to rebalance their portfolios or restructure to a closed-end form under the proposal.

⁴⁶³ We recognize that there may be other costs funds could incur to convert to a closed-end fund, such as potential exchange listing costs or costs of conducting periodic repurchase offers.

⁴⁶⁴ See *supra* section II.A.1.b.i and note 106.

c. Definition of Illiquid Investments

We propose to amend the definition of illiquid investments to include investments whose fair value is measured using an unobservable input that is significant to the overall measurement.⁴⁶⁵ We recognize that, in light of the proposed removal of the less liquid category, only a small fraction of these investments that are classified as highly liquid or moderately liquid would be affected by this proposed amendment. We estimate that approximately 0.07% of all open-end fund assets would be affected by this amendment.⁴⁶⁶ Therefore, we do not anticipate that this amendment would significantly impact open-end fund sector.

This amendment may improve the quality of investments' liquidity classifications. To the extent that valuation using unobservable inputs that are significant to the overall measurement may have an increased risk that the fund cannot sell the investment in time to meet redemptions without dilution, classifying such investments as illiquid may reduce this risk. To the extent that this risk results in investor dilution, and to the extent that the overall open-end funds' holdings of these investments would decrease as a result of this amendment, investor dilution may be reduced and overall liquidity of funds that hold such investments may increase as a result.

Although we understand that some funds already have a practice of classifying these investments as illiquid, this amendment may result in a one-time switching cost for funds that do not currently follow this practice. In addition, to the extent that some funds hold a significant share of their portfolio in such investments and these investments are not currently classified as illiquid, these funds would have to rebalance their portfolios and potentially change their investment strategy.

⁴⁶⁵ See *supra* note 112.

⁴⁶⁶ See *supra* section III.B.4.a.

d. Proposed Minimum for Highly Liquid Investments

Rule 22e-4 currently requires a fund to determine a highly liquid investment minimum if it does not primarily hold investments that are highly liquid investments. We propose for open-end funds to have a highly liquid investment minimum of at least 10% of the fund's net assets, which is the assumed stressed trade size.⁴⁶⁷ In addition, we propose to remove the provision allowing funds not to establish a highly liquid investment minimum if they "primarily" hold highly liquid assets.

Requiring a highly liquid investment minimum that is equal to or above the assumed stressed trade size of 10% of net assets may benefit funds and their investors by creating more standardized liquidity risk management among funds, thereby increasing their liquidity and helping all mutual funds to be better prepared to meet investor redemptions without incurring significant trading costs. A higher amount of liquid assets may help fund managers to avoid transacting at fire-sale prices during market stress and, therefore, control trading costs better over time. This, in turn, may decrease dilution risk for fund shareholders.⁴⁶⁸ By requiring a minimum of 10% of highly liquid assets, we set a minimum baseline level of liquidity that would help reduce dilution risk.

Funds may experience costs as a result of the proposed requirement. We recognize that funds that currently have an established highly liquid investment minimum already have the procedures in place for ongoing monitoring for meeting the minimum. As such, we do not expect the direct compliance costs related to meeting the highly liquid investment minimum, such as

⁴⁶⁷ See *supra* note 69 (recognizing that in-kind ETFs would not be subject to the proposed highly liquid investment minimum amendments).

⁴⁶⁸ Section III.B.3.b analyzes the frequency of large percentage redemptions from funds. We recognize that if a fund were to experience a 10% redemption, it could sell primarily its highly liquid assets (which would then be significantly more than 10% of each of these holdings), or it could sell a vertical slice of its portfolio, in which case it would sell 10% of all assets.

monitoring costs and costs related to shortfall policies and procedures, to increase for these funds. However, those funds that have an established minimum of less than 10% may have to rebalance their portfolios in order to meet the proposed requirement if they do not hold more highly liquid investments than the proposed requirement. In addition, funds may need to shift their portfolios away from less liquid holdings, potentially leading to higher tracking error relative to their benchmarks (if any)⁴⁶⁹ and lower returns. However, a higher amount of liquid investments may help fund managers to control trading costs better over time, which may result in a higher long-term returns for investors. Therefore, the return loss of holding more liquid investments (relative to less liquid investments) may be fully or partially offset by the savings on funds' trading costs.⁴⁷⁰

To the extent that some open-end funds' portfolio allocations change significantly as a result of this proposal, these funds may experience additional costs related to disclosure of changes to the fund's allocations and/or strategy and costs related to a potential change of the fund's name. These costs would be passed on to fund investors.

Funds that do not currently have an established highly liquid investment minimum may experience a one-time switching cost related to establishing shortfall policies and procedures and to reviewing the highly liquid investment minimum at least annually as a result of the proposed amendment. Funds may also experience one-time switching costs related to establishing monitoring procedures related to the highly liquid investment minimum. To the extent that some funds that do not currently have an established highly liquid investment minimum are able to leverage the experience of the funds in the same complex that do have an established highly liquid investment minimum, these one-time switching costs may be reduced for these funds.

⁴⁶⁹ See *supra* note 449.

⁴⁷⁰ See *supra* note 351 and accompanying text.

The proposal to remove the provision allowing funds to not establish a highly liquid investment minimum if they “primarily” hold highly liquid assets may eliminate compliance costs related to monitoring whether a fund primarily holds highly liquid assets. Because funds that hold a substantial amount of highly liquid investments would generally hold an amount of highly liquid investments that is above the proposed 10% highly liquid investment minimum, a separate compliance system that would identify whether a fund “primarily” holds highly liquid assets may be operationally inefficient. We believe that the “primarily” determination would become unnecessary in light of the proposed highly liquid investment minimum that would be applicable to all funds. We recognize that cost savings from the removal of the “primarily” provision would be partially or fully offset by the cost increase stemming from the proposed highly liquid investment minimum because funds currently relying on the “primarily” provision would have to build a compliance and monitoring systems around the highly liquid investment minimum.

e. Amendments to Calculation of the Amount of Assets that Count Toward the Highly Liquid Investment Minimum or the Limit on Illiquid Investments

We also propose to amend how the highly liquid investment minimum calculation and the calculation of the 15% limit on illiquid investments account for the value of assets that are posted as margin or collateral for certain derivatives transactions, as well as the value of fund liabilities in the case of the highly liquid investment minimum. Specifically, in assessing compliance with the fund’s highly liquid investment minimum, the proposal would require a fund to: (1) subtract the value of any highly liquid assets that are posted as margin or collateral in connection with any derivatives transaction that is not classified as highly liquid; and (2) subtract

any fund liabilities. In addition, the proposal would amend the rule's limitation on illiquid investments to provide that the value of margin or collateral that a fund could only receive upon exiting an illiquid derivatives transaction would itself be treated as illiquid for purposes of that limit.

The amendments to the highly liquid investment minimum calculation and the calculation of the 15% illiquid investment limit may benefit funds and investors. Particularly, these amendments would require funds to calculate the amount of highly liquid investments and illiquid investments in a way that more accurately reflects the amount of assets a fund could sell quickly to meet redemptions without significant dilution and the amount of assets that could not be sold within seven days without significant trading costs respectively. This, in turn, would better prepare funds for periods of increased investor redemptions and thereby enhance investor-protection benefits of funds' liquidity risk management programs.

More specifically, we recognize that, although investments used for collateral are generally classified as highly liquid, the value of those highly liquid investments cannot be accessed unless the derivative is exited, which takes a longer time for derivatives classified as moderately liquid or illiquid. In addition, an unrealized loss on a derivative or other liability may result in a margin call, for which highly liquid investments may be used. Moreover, if a fund may use highly liquid investments to service its liabilities (*e.g.*, paying interest on a loan), this fraction of highly liquid investments would also be unavailable to meet investors' redemptions. While we recognize that funds generally already subtract investment liabilities when calculating highly liquid investment minimum,⁴⁷¹ subtracting all of the fund's liabilities may further reduce the amount of highly liquid investments available to satisfy the fund's highly liquid investment

⁴⁷¹ See *supra* section II.A.2.b.ii.

minimum. Therefore, the amendments to the highly liquid investment minimum calculation would help to ensure that highly liquid investments used to satisfy the fund's highly liquid investment minimum actually are available to meet shareholder redemptions.

Similarly, the proposed amendment to add the value of excess collateral of illiquid derivatives investments to the amount of illiquid investments for the purposes of determining compliance with the 15% limit on illiquid investments would limit the extent to which the fund's assets would be unavailable to meet redemptions because of the fund's associated illiquid derivatives investments. This amendment would effectively increase the amount of illiquid investments a fund holds, potentially pushing these holdings over the 15% limit and triggering the compliance procedures for going over the limit, which may impose additional costs on the fund.

The proposed amendments may result in funds rebalancing their portfolios in order to meet the highly liquid investment minimum and comply with the limit on illiquid investments. Depending on the value of highly liquid assets a fund has that are posted as collateral or margin for non-highly liquid derivatives and the value of the fund's liabilities relative to the fund's total amount of highly liquid investments, under the proposed amendment, a fund may have to either increase its holdings of highly liquid assets or decrease its holdings of moderately liquid and illiquid derivatives in order to meet the highly liquid investment minimum. A fund similarly may have to decrease its holdings of illiquid investments or increase its holdings of highly liquid or moderately liquid investments as a result of the proposed amendment to the calculation of the limit on illiquid investments. To the extent that such portfolio reallocation would significantly change a fund's strategy, funds may experience additional costs related to disclosure of changes to the strategy. In addition, the risk-return profile of the fund's portfolio may change towards

more liquid and less risky investments that may have lower returns. To the extent that some investors demand higher returns, they may choose to invest in other investment vehicles that could offer higher returns.

f. Other Amendments Related to Liquidity Categories

We also propose other amendments related to the liquidity classification categories. First, we propose to amend the term “convertible to cash” and its definition to instead refer to conversion to U.S. dollars, codifying prior Commission statements. Second, we propose to specify that funds must count the day of classification when determining the period in which an investment is reasonably expected to be convertible to cash. Third, we propose to simplify the definition of moderately liquid investments as those that are neither a highly liquid investment nor an illiquid investment.

To the extent that, at present, open-end funds use differing definitions of convertible to cash and may inconsistently include or exclude the day of liquidity classification when performing the classifications, the two related proposed amendments would benefit funds and investors, as these amendments may improve the quality of liquidity classifications by reducing over- or under-estimation of investments’ liquidity, thereby potentially reducing trading costs related to investors’ redemptions. On the other hand, open-end funds that do not currently define “convertible to cash” as convertible to U.S. dollars, which may include some funds that invest in foreign securities, and open-end funds that do not currently count the day of classification during the classification process may experience a one-time switching cost. In addition, these funds may have to rebalance their portfolios, to the extent that their current approach results in an over-estimation of investments’ liquidity.

g. Frequency of Liquidity Classifications

Currently, rule 22e-4 requires that funds review their liquidity classifications at least monthly and more frequently if changes in relevant market, trading, and investment-specific considerations are reasonably expected to materially affect one or more of their investments' classifications. We propose to require that funds classify all of their portfolio investments each business day.

To the extent that funds already monitor their classifications on a daily basis in order to be in compliance with the current highly liquid investment minimum and 15% limit on illiquid investments requirements, we believe that this amendment likely will not produce significant additional benefits or costs. However, to the extent that funds do not monitor their classifications daily, or to the extent that monitoring classifications is a less stringent procedure relative to performing classifications for the funds that do monitor classifications daily, this amendment may produce benefits and costs.

On the one hand, requiring daily liquidity classification could help ensure efficient implementation of funds' liquidity management programs and enhance their investor protection benefits. Specifically, daily liquidity classifications may help funds identify changes in liquidity profiles of their investments in a timelier manner and monitor potential increases in trading costs for specific investments, thereby preparing funds for more efficient trading during times of increased redemptions and increasing their ability to respond more quickly to rapid changes in liquidity of portfolio investments, which may decrease investor dilution. In addition, the daily classification requirement, in combination with the proposed standards for trade size and value impact, may make the liquidity classification process more standardized, timely, and efficient.

On the other hand, funds may experience a one-time set-up cost and increased ongoing costs as a result of this amendment. First, those funds that generally do not evaluate their classifications more frequently than monthly would have to change their systems for performing classifications on a daily basis. In addition, these funds would experience increased ongoing costs due to increased frequency of classifications.⁴⁷² Second, those funds that already monitor their classifications on a daily basis would have to change their systems, to the extent that monitoring classifications on a daily basis is a different procedure compared to the proposed requirement to perform classifications.

In addition, in times of market stress some highly liquid investments may become less liquid due to unusual selling pressure (*e.g.*, Treasuries during March 2020), and more frequent classification may move these investments to less liquid buckets. In such instances where funds do not typically expect highly liquid investments to decrease in liquidity, more frequent reclassification of these investments may not help funds better accommodate increased redemptions compared to the baseline.⁴⁷³ However, to the extent funds would prefer to avoid triggering events that would cause additional compliance requirements such as Form N-RN filings, the potential for some investments to become less liquid in times of market stress could incentivize funds to be more conservative, *ex-ante*, in how they classify holdings and manage

⁴⁷² Under the proposed amendments, a more frequent classification may not necessarily result in more frequent portfolio rebalancing. For example, if a fund exceeds the 15% illiquid threshold, it would not have to sell its illiquid investments, rather it would not be able to acquire more. In addition, if a fund falls below the highly liquid investment minimum, it would still be able to purchase and sell highly liquid investments. However, both of these events would trigger filing of Form N-RN.

⁴⁷³ For example, during Mar. 2020 the liquidity of U.S. government securities unexpectedly decreased. Under the proposal, this event would trigger more rapid re-classification into a lower liquidity category. However, because of the unexpected nature of this event, a fund would still not be prepared to immediately meet an increased level of redemptions.

liquidity risk. This, in turn, may result in funds investing in more liquid assets, thereby decreasing the dilution risk in the mutual fund sector.

2. Swing Pricing

The proposed amendments would make several changes to the swing pricing framework adopted by the Commission in 2016. In particular, the proposed amendments would (1) require funds to implement swing pricing for each pricing period when a fund has any amount of net redemptions or when net subscriptions exceed 2% of the fund's NAV; (2) establish specific thresholds that determine when a fund is required to adjust its NAV and the factors a fund needs to incorporate into its swing factor; (3) require that swing factors are calculated assuming a vertical slice of the fund's portfolio; and (4) remove the upper limit on the swing factor of 2%. By requiring all funds to implement swing pricing, the proposed amendments would impose the estimated trading costs associated with redemptions and subscriptions onto investors whose transactions generate these costs, reducing the dilution of non-transacting fund shareholders. As such, the proposed amendments are also intended to reduce the first-mover advantage that stems from the dilution of non-transacting shareholders, particularly during stressed market conditions.

The proposed swing pricing framework would impose costs on mutual funds that would be passed on to their investors. We estimate, for Paperwork Reduction Act purposes, that the modification of existing collection of information requirements of rule 22c-1 associated with establishing and implementing swing pricing policies and procedures, board reporting, and recordkeeping will result in an annual cost increase of \$7,775 per fund.⁴⁷⁴ Funds would also incur additional operational costs associated with establishing and implementing swing pricing policies and procedures, including the periodic calculation of swing factors associated with the swing

⁴⁷⁴ See *infra* section IV.C.

pricing framework's thresholds.⁴⁷⁵ In addition, the economic benefits of swing pricing would be offset by the costs associated with the proposed hard close requirement.⁴⁷⁶ Finally, to the extent that the proposed swing pricing framework would make mutual funds less attractive to investors, mutual funds may experience investor outflows and/or reduced inflows.

We are not able to quantify many of the costs associated with the proposed swing pricing framework for several reasons. First, we do not have granular data on the current practices and operating costs for all funds, which might allow us to estimate how their systems would change as a result of the proposed swing pricing requirement. Second, we cannot predict the number of investors that would choose to keep their investments in the mutual fund sector nor the number of investors that would exit mutual funds and instead invest in other fund structures such as ETFs, closed-end funds, or CITs. We also cannot estimate how many funds would choose to upgrade their systems and processes in order to comply with the proposed swing pricing requirement versus how many funds would instead convert to an ETF or a closed-end structure. We request comment on the full costs of the swing pricing requirement, particularly any dollar estimates of the costs that funds and other affected parties will incur as a result of the rule.

a. Mandatory Swing Pricing

At present, rule 22c-1 permits mutual funds to use swing pricing, and yet no U.S. open-end fund has chosen to use it as an anti-dilution tool. We propose to require all affected mutual

⁴⁷⁵ Note that the swing factor itself in theory does not impose a net cost across all types of shareholders. Instead, swing pricing affects a zero-sum distribution of estimated future trading costs among transacting and non-transacting shareholders. The dilution that different types of fund shareholders ultimately experience will reflect this distribution in addition to the actual trading costs incurred by the fund from transactions that accommodate investor subscriptions or redemptions. Beyond the economic effects of the swing factor itself, the processes for calculating and applying the factor as well as the hard close will impose additional costs on all shareholders and intermediaries, which are discussed below.

⁴⁷⁶ See *infra* section III.C.3 for a detailed discussion of benefits and costs of the proposed hard close requirement.

funds to use swing pricing. In particular, we propose to require every fund to establish and implement swing pricing policies and procedures that would adjust the fund's NAV per share by a swing factor either if the fund has net redemptions of any amount or if the fund has net subscriptions that exceed an identified threshold.

We expect the proposed mandatory swing pricing requirement to benefit investors. First, swing pricing would protect non-transacting mutual fund investors because it would require transacting fund shareholders to bear the estimated trading costs that arise due to their trading activity. In contrast, currently, investors transacting in fund shares generally do not bear the costs associated with their trading activity, imposing dilution on non-transacting shareholders.⁴⁷⁷ For example, an industry study on the use of swing pricing in other jurisdictions estimates that dilution effects can be significant, with effects on annual returns of selected funds in one complex ranging from 10 to 66 basis points in 2019.⁴⁷⁸ While these estimates from other jurisdictions may be based on fund transaction cost components that differ from the U.S., such as those associated with government taxes and levies, to the extent that dilution effects are comparably significant in the U.S., the proposed mandatory swing pricing requirement would reduce the dilution of non-transacting fund shareholders.⁴⁷⁹ Second, mandatory swing pricing

⁴⁷⁷ In this section when we discuss trading costs, we refer to both direct (*e.g.*, spread costs) and indirect trading costs (*e.g.*, market impact costs).

⁴⁷⁸ See BlackRock, *Swing Pricing: The Dilution Effects of Investor Trading Activity on Mutual Funds* (white paper, Oct. 2020), available at <https://www.blackrock.com/corporate/literature/whitepaper/swing-pricing-dilution-effects-of-trading-activity-on-mutual-funds-october-2020.pdf>. To our knowledge, such data on fund dilution are not available for the U.S. and we solicit data that could enable quantification of the benefits of swing pricing. See also *supra* section I.B and *supra* notes 59, 60, 61, and 161 for additional discussion of swing pricing experience in other jurisdictions.

⁴⁷⁹ See *supra* section III.B.3 for a discussion of other sources that may contribute to dilution. We solicit comment on the relative impact of these sources on dilution. While the proposed swing pricing requirement is unlikely to reduce dilution associated with stale valuations directly, the proposed requirements would nevertheless help mitigate dilution resulting from trading costs associated with strategic trading behavior that may seek to take advantage of stale valuations.

could benefit markets overall because it may reduce the first-mover advantage that arises from dilution associated with trading costs. As a result, the proposed amendment may mitigate the risk of runs on mutual funds and may decrease the risk of fire-sales for the funds' underlying investments.

We believe that these benefits may be more pronounced in the case of net redemptions because dilution may be more severe when net redemptions occur. One reason for this asymmetry is that investor redemptions are required to be met within seven days, whereas the money a fund receives from new subscriptions is not required to be invested within a specific timeframe. Therefore, funds must incur the trading costs that exist during the seven days following investor redemptions, regardless of how large or small these costs are. On the other hand, while fund managers may generally accommodate new subscriptions by investing promptly to increase fund returns and reduce tracking error, they may also elect to wait to purchase investments at more advantageous prices or lower trading costs, resulting in lower dilution of non-transacting fund shareholders. Another reason for asymmetry in dilution from redemptions and subscriptions is that large redemptions can have a greater correlation across funds exposed to the same asset class in times of market stress, which in turn may induce more redemptions and further increase trading costs and associated dilution.⁴⁸⁰ Therefore, while swing pricing would reduce dilution from trading costs associated with both net subscriptions and redemptions, we believe that the magnitude of this anti-dilution benefit would be greater in the case of net redemptions.

⁴⁸⁰ See, e.g., Dunhong Jin et. al., *Swing Pricing and Fragility in Open-End Mutual Funds* (working paper, revised Jan. 7, 2021) available at <https://ssrn.com/abstract=3280890> (retrieved from SSRN Elsevier database). Also see section III.B.3 and note 395 for additional research references.

Another potential benefit of the mandatory swing pricing approach is that it would help overcome the collective action problem that may exist under the current optional framework and may have prevented voluntary swing pricing implementation due to the stigma that could be attached to being the first fund to implement swing pricing. To the extent that such a stigma effect is present in relation to swing pricing, it may deter investors from choosing funds that could implement swing pricing under the optional approach, and that could be a reason why no U.S. fund currently chooses to implement swing pricing.⁴⁸¹ We also recognize that U.S. mutual funds are currently also allowed to implement certain purchase and redemption fee approaches (which do not necessarily require substantial operational changes in contrast to swing pricing), yet these funds do not widely use redemption fees as an anti-dilution tool, possibly because of any stigma attached to anti-dilution tools generally.⁴⁸²

The mandatory swing pricing requirement would impose costs on mutual funds, investors, their intermediaries, and other market participants. In addition to the costs associated with the proposed hard close requirement discussed below, mutual funds would experience initial and ongoing operational costs associated with developing and administering swing pricing policies and procedures, changing their systems to accommodate swing pricing, updating fund prospectuses, as well as any costs associated with educating investors about swing pricing procedures. These costs would ultimately be passed on to fund investors.

⁴⁸¹ While we recognize that swing pricing has been successfully implemented in other jurisdictions, these other jurisdictions do not have the same regulatory frameworks and investor base, which may influence investors' sentiment towards anti-dilution tools and the extent of the potential stigma effects. In addition, other jurisdictions do not have the same intermediary structures between funds and their investors as in the U.S. *See supra* section III.B.2.

⁴⁸² *See supra* note 67 (stating that, based on staff review of fund prospectuses, fewer than 5% of funds impose a redemption fee on at least one share class).

To the extent that investors expect an increase in the costs of investing in mutual funds as a result of the proposed mandatory swing pricing, they may choose to divest from the mutual fund sector. To the extent that such investor outflows would be substantial, funds may experience a reduction in their economies of scale, which may lead to a further increase in fund fees. In addition, the mandatory swing pricing approach would reduce the set of investment choices available to investors, relative to the optional approach, where investors can choose to invest in funds that use swing pricing or funds that do not use swing pricing.

The determination and application of a fund's swing factor could delay the publication and dissemination of the fund's NAV relative to current practices. To the extent that intermediaries require NAVs for purposes such as updating and publishing client account statements, they would incur costs updating their operations and systems to adapt to later NAV publication times. In addition, any other market participants, such as financial data aggregators, that depend on fund NAV publication would also incur costs updating their operations and systems to adapt to later NAV publication times.

b. Swing Threshold Framework

The current rule permits a fund to determine its own swing threshold for net purchases and net redemptions, based on a consideration of certain factors the rule identifies.⁴⁸³ For a fund experiencing net redemptions, the proposal would require the fund to apply a swing factor for any level of net redemptions. In addition, the proposed rule would establish a threshold for inclusion of market impact costs in its swing factor when net redemptions exceed 1% of the

⁴⁸³ The factors a fund currently must consider in determining the size of its swing threshold are: (1) the size, frequency, and volatility of historical net purchases or net redemptions of fund shares during normal and stressed periods; (2) the fund's investment strategy and the liquidity of the fund's portfolio investments; (3) the fund's holdings of cash and cash equivalents, and borrowing arrangements and other funding sources; and (4) the costs associated with transactions in the markets in which the fund invests. *See* rule 22c-1(a)(3)(i)(B).

fund's net assets (the "market impact threshold"). For funds experiencing net subscriptions, the proposal would require funds to apply a swing factor that accounts for all trading costs (*i.e.*, including market impact costs) when net purchases exceed the threshold of 2% (the "inflow swing threshold").

Under the current rule, funds are able to tailor their swing pricing thresholds to their size, the characteristics of their underlying portfolio holdings, and the characteristics of their investor base. While this principles-based approach may be less burdensome for funds, some funds may find it suboptimal to implement swing pricing routinely due to the operational costs of doing so frequently. As a result, they may choose thresholds that reduce the frequency and impact of swing pricing on transaction prices for fund shares. This, in turn, could reduce the benefits of the proposed swing pricing requirement, including protecting non-transacting investors from dilution due to trading costs and reducing the first-mover advantage associated with such costs. Therefore, we believe that a uniform approach to swing thresholds would better protect non-transacting investors in the mutual fund sector by ensuring that trading costs are passed on to transacting investors, regardless of which fund's shares investors hold in their portfolios.

Trading costs incurred by a fund can be dilutive when a fund experiences either redemptions or subscriptions. However, as discussed above, subscriptions are likely to be less dilutive than redemptions. To the extent that determining the swing factor is costly, as discussed below, only requiring funds to do so when net subscriptions exceed 2% would limit the frequency with which funds incur such costs. Based on the analysis of historical daily fund flows in Table 3, a random fund on a random day has approximately a 1% chance of exceeding the inflow swing threshold. In addition, there were only 0.2% of days where more than 5% of funds

in the sample experienced net subscriptions exceeding the inflow swing threshold.⁴⁸⁴ Therefore, we do not expect most funds to experience the costs of applying a swing factor in the case of net subscriptions frequently. The anti-dilutive benefits of swing pricing in response to net redemptions are likely to be more than those associated with net subscriptions, as discussed above. Therefore, we believe that applying swing factor on any day with net redemptions may benefit non-transacting investors compared to applying swing factor only when a certain threshold is crossed. However, to the extent that applying the swing factor more frequently is costly, these benefits may be offset by such costs.

The proposed market impact threshold of 1% may result in varying costs and benefits for funds and their investors. For example, two funds that invest in underlying assets with similar liquidity characteristics may experience market impact at significantly different levels of redemptions, as measured in percentage, if they are significantly different in size. A 1% redemption from a fund with low AUM may not result in sales of assets that result in market impact, whereas a 1% redemption from an otherwise similar fund with significantly larger AUM might. Similarly, two funds with comparable levels of AUM holding investments with different liquidity characteristics may experience market impact at different levels of redemptions. For example, a large cap equity fund may not experience market impact at the 1% threshold, whereas a fixed income fund with comparable AUM might. As such, the extent to which a given fund and its investors benefit from evaluating market impact at the 1% threshold will vary based on factors such as the fund's size and the liquidity of its underlying investments. For funds that may experience market impact even when redemptions are below the 1% threshold, we note that funds can choose to incorporate market impact into their swing factor at a lower threshold than

⁴⁸⁴ The analysis also shows that if the 99th percentile net fund flow is computed on each date, it exceeds the inflow swing threshold on approximately 34% of days.

1%. To the extent that calculating market impact may be costly, only requiring funds to do so when net redemptions exceed 1% would limit the frequency with which funds incur such costs. We estimate that a random fund on a random date has approximately a 1.6% chance of exceeding the market impact threshold, and there were 2.3% of dates where more than 5% of funds experienced net redemptions exceeding the market impact threshold.⁴⁸⁵

c. Calculation of the Swing Factor

The current swing pricing framework provides an upper limit of 2% for the swing factor and requires that the swing factor take into account only the near-term costs expected to be incurred by the fund as a result of net purchases or net redemptions that occur on the day the swing factor is used,⁴⁸⁶ as well as borrowing-related costs associated with satisfying redemptions; however, it does not specify how a fund should select investments for the purposes of estimating the trading costs and it does not require a fund to include market impact costs in the swing factor.⁴⁸⁷ We propose removing the current upper limit of 2% for the swing factor and requiring a fund's swing pricing administrator to make good faith estimates, supported by data, of the overall costs, including market impact costs under certain conditions, that the fund would incur if it purchased or sold a pro rata amount of each investment in its portfolio equal to the amount of net purchases or net redemptions (*i.e.*, a vertical slice).⁴⁸⁸ Because a fund would need to calculate its costs based on the purchase or sale of a vertical slice of its portfolio, rather than selecting

⁴⁸⁵ An analysis of historical Morningstar daily fund flow data for equity and fixed income funds from 2009 through 2021 shows that the 1st percentile flow is approximately -1.6% while the 5th percentile flow is approximately -0.3%. The same analysis shows that the 1% market impact threshold corresponds to approximately the 0.016 percentile of pooled daily net fund flows. The same analysis shows that if the 1st percentile fund flow is computed on each date, it exceeds the market impact threshold on approximately 84.6% of dates.

⁴⁸⁶ These near-term costs include spread costs, transaction fees, and charges arising from asset purchases or asset sales resulting from those purchases or redemptions.

⁴⁸⁷ See rule 22c-1(a)(3)(i)(C).

⁴⁸⁸ See proposed rule 22c-1(b)(2).

specific investments to be sold/purchased and estimating the cost of selling/purchasing those specific investments, we propose removing borrowing costs from the swing factor calculation.

i. Vertical Slice Assumption

The vertical slice assumption may benefit investors of the affected funds. Specifically, the vertical slice assumption is designed to recognize the potential longer-term costs of reducing a fund's liquidity and would more fairly reflect the costs imposed by redeeming or purchasing investors than an approach that focuses solely on the costs associated with the instruments that a fund expects to buy or sell (or expected borrowing costs, in the case of redemptions). For example, if investor redemptions continue for multiple days, a fund that sells its most liquid investments on the first day could experience increased trading costs on subsequent days because it has to sell a bigger fraction (relative to a vertical slice) of its less liquid assets. As a result, redeeming investors on subsequent days would be charged more than investors who redeemed on the earlier date via a higher swing factor. In addition, the future costs associated with rebalancing the fund portfolio to its pre-redemption level of highly liquid investments are not currently permitted to be incorporated into the swing factor because they are not near-term costs that may be considered under the current rule. Therefore, the proposed vertical slice assumption would help to ensure that redeeming investors bear not just the immediate trading costs they impose on the fund, but also, in cases where a fund sells its most liquid investments to meet redemptions first, the estimated transaction costs associated with rebalancing the fund's portfolio to its pre-redemption level of highly liquid investments, such that subsequent redeeming investors are not charged for the costs associated with past redemptions.

We recognize that selling a vertical slice of a portfolio in order to meet investor redemptions may not be a practice used by all mutual funds during all times. For example, recent

research documents that during tranquil market conditions, corporate bond funds tend to reduce liquid asset holdings to meet redemptions; however, when aggregate uncertainty rises these funds tend to scale down their liquid and illiquid assets proportionally to preserve portfolio liquidity.⁴⁸⁹ Another paper finds that some funds holding less liquid assets reacted to redemptions in March 2020 by adding to their cash buffers even after meeting investor redemptions, rather than selling their most liquid assets first or selling a vertical slice of their portfolio.⁴⁹⁰ Therefore, we recognize that the vertical slice assumption could result in using estimates of transaction costs in the calculation of the swing factor that differ from the estimated trading costs tailored to a different asset liquidation approach. As a consequence, to the extent that the trading costs estimated based on the vertical slice assumption are higher or lower than estimated trading costs of the fund's portfolio liquidation strategy, redeeming investors may be over- or under-charged relative to the immediate trading costs of a fund's actual liquidation strategy.

ii. Market Impact Costs

We propose requiring funds to include a good faith estimate of market impact costs in the calculation of their swing factors when (1) net subscriptions are above the inflow swing threshold or (2) when net redemptions exceed the market impact threshold of 1%. To the extent that funds are able to forecast market impact costs accurately, this requirement would ensure that transacting investors bear, in addition to direct transaction costs, the estimated impact of their transactions on the ultimate price a fund pays or receives for any investments it buys or sells. This may allow non-transacting shareholders to recapture more of the dilution imposed on the

⁴⁸⁹ See Hao Jiang, et. al., *Dynamic Liquidity Management by Corporate Bond Mutual Funds*, J. FIN. & QUANTITATIVE ANALYSIS 1622, no. 5 (Aug. 2021).

⁴⁹⁰ See Andreas Schrimpf, et. al., *Liquidity Management and Asset Sales by Bond Funds in the Face of Investor Redemptions in March 2020* (Mar. 17, 2021) available at <https://ssrn.com/abstract=3799868> (retrieved from SSRN Elsevier database).

fund by transacting fund investors. As a result, the proposed market impact inclusion may also help reduce first-mover advantage.

Several factors may limit the anti-dilution benefits of including market impact costs in the swing factor. First, funds may incur costs in obtaining reasonable ex-ante estimates of market impact costs, either because they need to pay vendors for such estimates or because they need to exert costly effort to develop such estimates internally. These costs may ultimately be passed on to investors. Second, it may be difficult and sometimes not feasible to develop objective estimates of market impact for some of the investments that mutual funds hold, such as those that generally lack a robust and liquid secondary market (*e.g.*, municipal securities and small-cap equities). In addition, market impact may be more difficult to estimate during periods of stress when trading in certain markets may be limited or stop. Therefore, funds may need to use subjective discretion to determine market impact estimates in certain circumstances, which may result in funds over- or under-estimating the true ultimate market impact costs associated with a given day's orders. This, in turn, would result in over- or under-charging transacting investors, exposing them to additional risk regarding the price at which they will ultimately transact their shares.⁴⁹¹

Third, because funds would still have some discretion in determining their swing factors, such as discretion over which price impact model is used to estimate market impact, some funds may have an incentive to under- or overestimate their swing factors, depending on the circumstances. For example, a fund may choose to underestimate market impact, biasing the swing factor estimate downwards, in order to attract investors that prefer less volatile transaction

⁴⁹¹ Transacting investors already face market risk when submitting an order to buy or sell fund shares because these orders must be submitted prior to the time at which a fund determines its NAV.

prices for fund shares. On the other hand, funds may have an incentive to overestimate market impact and overcharge transacting investors relative to the trading costs they are expected to impose on the fund, because doing so may increase the performance of the fund.⁴⁹² However, the proposed requirement that funds report each swing factor on Form N-PORT may mitigate any incentive funds have to under- or overestimate their swing factors, as it will provide public transparency regarding the size of these NAV adjustments.⁴⁹³

iii. Removal of the Upper Limit on the Swing Factor

The proposed removal of the upper limit on the swing factor may benefit fund investors by permitting swing pricing to address the dilution that transacting investors impose on a fund more fully. The magnitude of this benefit would depend on how often funds' trading costs exceed the current 2% swing factor. To the extent that trading costs are more likely to exceed this threshold during stressed periods, we expect this amendment to benefit non-transacting fund investors during such periods when dilution may be increasing, which may further address the first-mover advantage related to dilution from trading costs. In addition, to the extent that trading costs for certain types of funds are more likely to exceed the current 2% swing factor, the proposed amendment would ensure that investors in these funds are as protected from dilution as investors in funds for which trading costs generally correspond to a swing factor lower than 2%. These benefits may be partially offset because the removal of the upper limit for the swing factor may also have a destabilizing effect during periods of stress. For example, if investors expect that trading costs will continuously increase, and that the swing factor will increase accordingly,

⁴⁹² When a fund overcharges transacting investors, the fund increases its assets and hence the performance of the fund.

⁴⁹³ See *supra* section III.B.4.

they may be incentivized to redeem their shares at the onset of market stress, when the swing factor is lower.

iv. Removal of Borrowing Costs from the Swing Factor

We propose removing borrowing costs from the costs that should be included in the swing factor. To the extent that the vertical slice assumption would result in higher magnitude swing factors, any decrease in swing factor magnitude due to the proposed removal of borrowing costs from the swing factor calculation may be fully or partially offset. Therefore, we do not expect this aspect of proposal to have substantial effects. Although affected funds would still be allowed to engage in bank or inter-fund borrowing in order to fund investor redemptions, the proposed swing factor calculation will not reflect potential borrowing costs for funds that do use borrowing to fund redemptions.⁴⁹⁴ To the extent that these costs are higher than the estimated costs of buying or selling a vertical slice of a fund's portfolio, they would be borne by investors remaining in the fund, limiting the anti-dilution benefits of the proposal.

3. Hard Close Requirement

With respect to putting swing pricing into practice, requiring a hard close would ensure that funds receive more timely flow information. Because swing pricing requires both fund flows and estimates of trading costs, requiring a hard close should reduce any flow estimation error that would otherwise occur if funds had to rely heavily on estimated fund flows in adjusting their NAV. In addition, by providing funds with more complete flow information, the hard close requirement could have auxiliary benefits unrelated to swing pricing, including settlement

⁴⁹⁴ Fund borrowing may defer but not always eliminate the need for a fund to sell portfolio investments, as a fund will eventually have to re-pay the loan. As a result, a fund may incur borrowing costs in addition to trading costs, but only the latter would be captured by the adjustment of NAV by the swing factor under the proposal.

modernization, and order processing improvements.⁴⁹⁵ Also, a fund that knows its flows sooner may be able to plan and implement trading strategies to meet those flows in a more cost effective manner.

The hard close requirement may change operational burdens for mutual funds and other parties related to mutual fund order processing. Currently, because mutual fund flows from different intermediaries and investors are received by funds at different times, fund transfer agents may have to process the orders in multiple batches that may span until the next day. On the one hand, if doing so is costly in terms of labor and/or strain on the processing systems and to the extent that these costs are non-negligible, the hard close requirement may decrease operational burden by allowing all orders to be processed within a shorter time frame. On the other hand, to the extent that processing all orders in a short amount of time, as it would be implied under the proposal, requires more manpower and/or more processing capabilities, the hard close requirement may increase operational burden of open-end fund transfer agents. This effect may be more pronounced for smaller transfer agents that do not enjoy economies of scale.

In addition, the hard close requirement may allow funds to plan next-day and future activity related to today's redemptions or subscriptions more efficiently. For example, the hard close would in some cases improve the reliability of the flow information fund portfolio managers use by eliminating cancellations and corrections. In addition, if a portfolio manager uses flow information posted at the custodian, the hard close generally would provide timelier flow information. To the extent that these effects are present, the hard close requirement would allow funds to have timelier information that would permit them to plan and execute their trades

⁴⁹⁵ See *supra* section II.C.3.a for additional discussion.

in a more efficient manner. This, in turn, may reduce funds' tracking errors and may help prevent any error corrections or trade cancellations after the pricing time.

However, requiring a hard close may impose significant switching costs (*e.g.*, changing business practices, computer systems, integrating new technologies, etc.) on funds, their intermediaries, and service providers that could ultimately be passed on to investors. We recognize that these switching costs could be larger for certain types of intermediaries. For example, some intermediaries may have more layers of intermediation than others, and, therefore, would have to update more systems and processes. As another example, some intermediaries may have more reporting and recordkeeping requirements than others, and would have to update more systems and processes to comply with the hard close requirement. In addition, some intermediaries have their processes and systems set up such that the daily price information is required before any orders can be processed. For example, retirement plan recordkeepers and any affiliated brokers and trust companies, as well as DCS&S, would have to modify their processes and systems substantially, as these processes currently require daily price information for all investments prior to processing of any investment instructions from the plan participants. In addition, retirement plans may have to modify their provisions, and employers sponsoring these plans may need to modify payroll systems, as well as change the information (*e.g.*, websites, manuals, and training materials) they provide to employees regarding how to submit orders, as a result of the hard close requirement.

A substantial number of affected retirement plans are small in size as shown in Table 5. Therefore, a large number of small plans may be disproportionately affected by the implementation costs related to the proposed hard close because they may not enjoy economies of scale. To the extent that these costs are too large relative to the size of assets under

management, some of the plans may cease to exist or choose to offer other investment vehicles such as ETFs or CITs. For example, in 2003, one commenter stated that one cost related to a hard close that was substantially similar to what we are proposing would be requiring submission of trades on sub-account levels rather than on an omnibus level, which would result in an incremental cost increase of \$4.1 million per year for this commenter with 1.3 million of omnibus trades per year.⁴⁹⁶ To the extent that not all investors have a choice of intermediary, such as participants in employee-provided retirement plans, the costs stemming from the proposed hard close requirement may be borne by either investors (*i.e.*, plan participants) or their employers that sponsor the plan.

In addition, to the extent that not all intermediaries may be able to comply with the hard close requirement, the investors that use these intermediaries may face a decreased ability to invest in mutual funds via certain intermediaries. To the extent that the strategies that open-end funds subjected to the proposed requirement cannot be replicated or to the extent that such replication would be more costly outside of the mutual fund sector (*e.g.*, via a separately managed account), investors may end up with either less diversified portfolios, or experience higher costs of investing.

The hard close requirement may disadvantage certain investors that do not have a choice in their intermediary, if it precludes them from responding to market events after a specific cut-off time that is earlier than 4 p.m. ET or lengthens the amount of time for completing certain types of transactions⁴⁹⁷ compared to investors that submit orders directly to funds. For example, if an intermediary sets up a cut-off time for transactions that is earlier than the fund cut-off time

⁴⁹⁶ Comment Letter of Charles Schwab (Oct. 27, 2003) on 2003 Hard Close Proposing Release, File No. S7-27-03, *available at* <https://www.sec.gov/rules/proposed/s72703/s72703-2.pdf>.

⁴⁹⁷ *See supra* section II.C.3.d.

(4 p.m.), investors in mutual funds that use these intermediaries will not be able to react to market events that take place between an intermediary cut-off and the fund cut-off time, thereby increasing a market risk for investors that trade via intermediaries with earlier cut-off times. However, investors that trade directly with a fund or use intermediaries with later cut-off times would have an advantage and still be able to respond to some or all market events during this time frame (depending on the applicable cut-off time), allowing them to decrease their market risk relative to investors that would be pushed to next-day pricing.

In addition, to the extent that investors designate their employers to make retirement contributions to intermediaries via payroll procedures, and to the extent that payroll procedures have to be performed during a specific time frame in order for transaction to receive that day's price, the employers may experience a cost of switching the system to accommodate an earlier cut-off time for orders. These effects may be more pronounced for employers and investors in the western regions of the U.S. who may not have a sufficient time window to process contributions and/or (re)allocate their portfolios. In addition, to the extent that some intermediaries already impose an earlier cut-off time for investors' orders, the hard close may entail an even earlier cut-off time, which may further disadvantage investors.

In addition, the proposed hard close might affect current order processing for funds of funds. We understand that an upper-tier fund in a fund of funds structure may not submit its purchase or redemption orders for lower-tier funds' shares until after 4 p.m. Under the proposed rule, the upper-tier fund would have to submit purchase or redemption orders for lower-tier funds' shares before the lower-tier funds' designated pricing time in order to receive that day's price for the orders.

We are not able to quantify many of the costs of the hard close requirement for several reasons. First, we cannot predict how the costs would be allocated between funds and their intermediaries because we do not have detailed information about the number of intermediate steps required to be completed between the time an investor places an order and the time a fund receives this order for each type of an intermediary and which party currently bears the costs of each intermediate step. Second, we do not have granular data related to the current practices and operating costs for each intermediary type, both those that are regulated by the Commission and those that are not. Therefore, we cannot predict how their systems and practices would change in response to the hard close requirement and estimate the associated costs of these changes. Third, we cannot predict how many intermediaries will choose to upgrade their systems and processes in order to maintain their ability to offer mutual funds to the client, how many intermediaries will choose to impose an earlier cut-off time for investor orders, and the number of intermediaries that will retain their existing systems and order cut-off times and offer products that would not be subject to the proposed hard close requirement, such as CITs, ETFs, or closed-end funds in place of mutual funds. Finally, we cannot predict how many investors will respond to changes that intermediaries may implement in response to the hard close requirement by divesting from the mutual fund sector. We request comment on these costs of the hard close requirement, particularly any dollar estimates of the costs that funds, intermediaries, and other affected parties will incur as a result of the rule.

4. Commission Reporting and Public Disclosure

The Commission is proposing to change reporting frequency of Form N-PORT, to change public availability of certain items on Form N-PORT, and to amend Forms N-PORT, N-CEN, and N-1A. The proposed amendments are intended to increase transparency around funds'

activities related to liquidity management and anti-dilution tools and to make information more usable by filers, regulators, investors, and other potential data users. The proposed amendments would also provide more information about a fund's portfolio and its liquidity risk profile to investors, thereby improving their portfolio allocation decisions.

Open-end funds will experience costs as a result of the proposed changes to the three forms. In connection with the proposed information collection requirements under the Paperwork Reduction Act, we estimate that the proposed changes to Form N-PORT would result in an internal cost increase of \$2,472,356 and an external cost increase of \$5,613,175, the proposed changes to Form N-1A would result in internal cost increase of \$10,609,390; and the proposed changes to Form N-CEN would not on aggregate result in an increase of ongoing costs.⁴⁹⁸

a. Commission Reporting Frequency

Currently funds file Form N-PORT reports for the first, second, and third months of each fiscal quarter with the Commission 60 days after the end of the third month of the quarter. We are proposing to require funds to file Form N-PORT reports with the Commission within 30 days after the end of each month. We believe that this amendment would help the Commission to oversee funds' activities on a timelier basis. We do not expect this part of proposal to have substantial economic effects on funds, as funds already are required to maintain records of the information that Form N-PORT requires no later than 30 days after the end of each month and many funds report monthly information about their portfolio holdings on a voluntary basis to third party data aggregators, generally with a lag of 30 to 90 days, which in turn make them available to investors and other data users for a fee.⁴⁹⁹ To the extent it is less efficient for fund

⁴⁹⁸ See *infra* sections IV.D, IV.E, and IV.F. These annual direct costs include ongoing as well as initial costs, with the latter being amortized over three years.

⁴⁹⁹ See rule 30b1-9. Also see section II.E.1.b. and note 287.

groups to submit on a more frequent monthly basis instead of in one batch after quarter-end, the costs borne by fund groups may marginally increase under the proposal.

The data the Commission would receive on Form N-PORT reports within 30 days of month-end would include portfolio information which, depending on the fund, may not currently be public. To the extent this nonpublic information was subject to a data breach before its scheduled publication 60 days after month-end, unauthorized access could harm shareholders by expanding the opportunities for professional traders or others to exploit the information. However, the Commission has controls and systems for the use and handling of the proposed modified and new data in a manner that reflects the sensitivity of the data and is consistent with the maintenance of its confidentiality. In addition, as discussed below, many funds already publicize their monthly holdings, which reduces the sensitivity of the information the Commission would store confidentially, and Form N-PORT reports would become publicly available 60 days after month-end.

b. Public Availability of Form N-PORT Data and Aggregate Liquidity Disclosure

Currently, funds are required to make the report for the third month of every quarter available to the public. We are proposing to make funds' monthly reports on Form N-PORT public 60 days after the end of each monthly reporting period. We are also proposing to require an open-end fund to provide information regarding the aggregate percentage of its portfolio in each of the three proposed liquidity classification categories, which would become public on the same time frame.

Public disclosure of aggregate liquidity classifications would help investors to assess the liquidity profile of the funds in which they are investing, and may be more useful to investors

than the narrative liquidity disclosure the Commission adopted in 2018. The proposed disclosure may provide more information about a fund’s liquidity risk profile to investors, thereby improving their portfolio allocation decisions. In addition, observing other funds’ aggregate liquidity profiles might provide some information that is useful in a fund’s own liquidity classification process. These benefits may be offset to the extent that liquidity classifications are not directly comparable across mutual funds, although the proposal would establish minimum standards that reduce the amount of discretion funds currently have in classifying their investments. We expect that funds will incur one-time and ongoing costs associated with preparing the portion of Form N-PORT associated with the aggregate liquidity profile, as discussed in section IV.

The proposal would triple the amount of data made available to investors and other potential users on Form N-PORT in a given year. To the extent that investors currently are not able to obtain monthly portfolio data from other sources, such as fund websites or third-party data aggregators the proposed requirement would enhance the ability of investors to monitor funds’ portfolios, which in turn may help investors to make more efficient investment decisions.⁵⁰⁰ Many funds report their monthly portfolios to third party data aggregators. Because the data made available to data aggregators is inconsistent across funds and time, the proposed amendment would increase consistency of portfolio data available to investors and other data users. To the extent that 60 days is not a long enough delay in disclosure of portfolio data, funds may be subject to predatory trading or “copycatting activities” that could potentially affect

⁵⁰⁰ See e.g., Ji-Woong Chung et. al., *Intended Consequences of More Frequent Portfolio Disclosure* (working paper, Apr. 17, 2022), available at https://papers.ssrn.com/sol3/papers.cfm?abstract_id=4086186 (retrieved from SSRN Elsevier database).

portfolio returns.⁵⁰¹ This effect may be more pronounced for funds with more proprietary trading strategies.

c. Other Amendments to Forms N-PORT, N-CEN, and N-1A

We are proposing to remove the reporting requirement for swing pricing on Form N-CEN and replace it with a new reporting requirement on Form N-PORT that would require information about the number of times the fund applied a swing factor during the month and the amount of each swing factor applied. We are also proposing amendments to Form N-CEN to identify and provide certain information about service providers a fund uses to fulfill the requirements of rule 22e-4. In addition, instead of classifying an RSSD ID as an LEI, we propose to provide separate line items where a fund would report an RSSD ID, if available, in the event that an LEI is not available for an entity. We also propose to amend certain items and definitions on Form N-PORT to conform them to the proposed amendments. Finally, we propose to amend Item 11(a) of Form N-1A to require, if applicable, that funds disclose that if an investor places an order with a financial intermediary, the financial intermediary may require the investor to submit its order earlier to receive the next calculated NAV. In addition, as a result of the proposed swing pricing requirement, funds would be required to disclose information about swing pricing in response to certain existing items in the form.⁵⁰²

The proposed amendments would increase transparency around funds' activities in several ways. First, additional information about funds' service providers would enable investors and other data users to assess fund liquidity management practices and help the Commission

⁵⁰¹ A recent working paper examines the costs of Form 13F disclosure and finds that additional disclosure may harm portfolio returns over time. See David Kwon, *The Differential Effects of the 13f Disclosure Rule on Institutional Investors* (working paper, May 5, 2022), available at https://papers.ssrn.com/sol3/papers.cfm?abstract_id=4095482 (retrieved from SSRN Elsevier database).

⁵⁰² See Items 6(d), 4(b)(2)(ii), 4(b)(2)(iv)(E), and 13(a) of Form N-1A.

oversee the industry better. Second, information about swing pricing application can help the Commission and investors understand swing factor adjustments a given fund makes and evaluate how often a fund has any net redemptions or has net subscriptions of more than 2% and the amount of the swing factor adjustment.

The proposed amendments would impose PRA costs, as discussed in above. Some funds may already maintain some of the information they would be required to report under the proposal in the ordinary course of business. However, we recognize that funds would incur some costs in reporting the information. We recognize that, due to economies of scale, such costs may be more easily borne by larger fund families, and that costs borne by funds would be passed along to investors in the form of higher fees and expenses. In addition, the proposed disclosures of each swing factor and the number of times a swing factor was applied may create incentives for funds to compete on this dimension. Specifically, investors who prefer lower variability in the value of their investments may move capital from funds that had high historical swing factors to funds with lower swing factors. However, while NAV swings penalize redeemers or subscribers under certain circumstances, they benefit investors remaining in the fund, which may make funds actively using swing pricing more attractive to longer term investors.

The proposed amendments related to entity identifying information would help the Commission and market participants to identify entities related to funds' businesses more efficiently.

D. Effects on Efficiency, Competition, and Capital Formation

1. Efficiency

The proposed amendments may affect allocative efficiency in several ways. First, the proposed changes to the liquidity classification methodology, proposed public disclosure of

funds' aggregate liquidity classifications, and swing pricing disclosures are expected to benefit investors by reducing information asymmetries between funds and investors. To the degree that some investors may currently be uninformed about liquidity risks of funds' investments, the proposed disclosure requirements may increase transparency about liquidity costs transacting investors impose on remaining fund investors and liquidity risks in open-end funds. To the degree that greater transparency about liquidity risk of mutual funds may lead some risk averse investors to use other instruments, in lieu of mutual funds for long-term investment, allocative efficiency may increase.⁵⁰³ In addition, the increased transparency may result in greater allocative efficiency as investors with low tolerance of liquidity risk and costs may choose to reallocate capital to funds that have lower liquidity risk and costs. Further, to the degree that uncertainty about the proposed swing pricing requirement may reduce the attractiveness of affected funds to investors, transparency about historical swing factors may reduce those adverse effects.

Second, market efficiency for funds' underlying investments may increase, to the extent that the proposed amendments mitigate the risk of runs on open-end funds and decrease fire-sales for the funds' underlying investments. In addition, a potential shift in demand from illiquid to liquid investments may encourage the development of market structures that increase the liquidity of investments that are currently less liquid. For example, currently, only a fraction of traded bank loan interests has a standardized settlement process and transparent prices and quotations. To the extent that the proposed amendments would lead market participants to standardize and shorten the settlement process for bank loan interests, the prices and spreads for bank loans may become more transparent at a sector level, increasing the efficiency in this

⁵⁰³ See, e.g., Jennifer Huang et. al., *Shifting and Mutual Fund Performance*, 24 REV. FIN. STUD. 2575, no. 8 (2011). The paper argues that if investors are not fully aware of risk-shifting behavior or if the changing risk level hampers their ability to assess fund performance, then individual portfolios are less likely to be efficient.

market. On the other hand, the proposed liquidity requirements may lead funds to allocate less to these investments. Absent other frictions, the difference in demand for these investments could be made up for by other investors or other the same investors through other structures (such as more direct investment). However, if this difference in demand is not fully absorbed by other market participants, the efficiency in this market may decrease.

Third, the hard close requirement may make portfolio allocation less efficient for investors, to the extent that intermediaries used by these investors would impose an earlier cut-off time for orders and investors would not be able to reflect the entire day's market information into their allocation decisions. In addition, to the extent that certain types of orders would no longer be executed at today's prices and rather would be sent to funds the next day, investors may be exposed to additional market risk as well as potentially decreased portfolio returns because an intermediary may hold the cash from investors' orders submitted after the cut-off time (but before 4p.m. ET) until it could submit these orders at the end of the next day.

The proposed amendments may affect funds' portfolio efficiency. For example, funds may start considering the liquidity of investments and their overall portfolios to a higher degree when making portfolio allocation decisions and considering other factors, such as an investment's risk and expected return, to a relatively lower degree. This may reflect an optimal choice, to the extent that funds' investors believe that illiquidity of a fund's portfolio is more costly relative to the cost of foregoing less liquid portfolio investments that may offer higher returns. On the other hand, if liquidity considerations lead to deviations from the fund's investment strategy or benchmark return, the proposed amendments may decrease the efficiency of funds' portfolios.

The proposed daily classifications may also affect funds' portfolio efficiency. On the one hand, if daily fluctuations in market values of a fund's portfolio investments are large (and therefore the daily changes in the dollar value of the stressed trade size is also large) but revert to the mean within several days, liquidity classification for the same portfolio position may also fluctuate daily while eventually reverting to the mean. In this scenario, funds may start managing the portfolio positions inefficiently in order to be in compliance with the highly liquid investment minimum and the 15% limit on illiquid investments. On the other hand, daily classifications may increase informational efficiency of the funds' investments, to the extent that funds' demand for daily information results in increased availability of such information offered by third-party providers. As a result, funds' portfolio allocation decisions may become more efficient.

The proposed amendments may also affect operational efficiency of funds and intermediaries. First, to the extent that the proposed removal of the less liquid category results in an increased standardization of settlement practices and a reduction of settlements times for bank loan interests and other investments that are currently classified as less liquid, a reduction in allowed settlement time for investments in order to qualify as moderately liquid investments may facilitate operational efficiency of funds that trade these investments. Second, the proposed removal of the less liquid category may facilitate operationalizing funds' swing pricing by reducing uncertainty related to trading costs for investments that are currently classified as less liquid. In particular, to the extent that open-end funds will become more certain about trades' settlement dates, it may allow them to more accurately estimate trading costs and, therefore, more accurately estimate the swing factor. Third, intermediaries may improve their order-

processing systems as a result of the proposed hard close requirement, improving ongoing operational efficiency for both intermediaries and funds.⁵⁰⁴

2. Competition

The proposed amendments may affect the competitive landscape for open-end funds. There are two main economic effects discussed above that may cause the change in the competitive landscape for open-end funds: (1) cost increases for funds, fund managers, and fund administrators stemming from proposed changes in the liquidity risk management program, proposed mandatory swing pricing, and the hard close; and (2) additional constraints on funds' holdings of certain investments that could limit these funds' investment strategies due to proposed changes to funds' liquidity classifications, the proposed definition of illiquid investments, and proposed changes to the highly liquid investment minimum.

Competition within the open-end fund sector may evolve as a result of the two effects stated above in several ways. First, to the extent that certain funds substantially change their investment strategies towards more liquid investments, the number of open-end funds that hold more liquid investments may increase, and competition among those funds for investors may increase. Conversely, competition among funds that hold less liquid investments may decrease. These effects depend also upon how investor demand for funds with liquid and illiquid investments may change with the proposed amendments. Second, to the extent that smaller open-end funds would experience a more substantial operational burden compared to larger fund complexes that exhibit economies of scale and may be able to set up their trading desks in a more efficient manner,⁵⁰⁵ smaller funds may become less competitive than larger funds. As a result,

⁵⁰⁴ See *supra* section II.C.3 for additional discussion.

⁵⁰⁵ See e.g., Gjergji Cici et. al., *Trading Efficiency of Fund Families: Impact on Fund Performance and Investment Behavior*, 88 J. BANKING & FIN.1 (Dec. 22, 2015, rev. Jan. 12, 2016), available at https://papers.ssrn.com/sol3/papers.cfm?abstract_id=2514203. The authors find that by

smaller funds may decide to liquidate or to convert to other fund structures, such as ETF or closed-end structures, to the extent such conversion would be less costly compared to remaining a mutual fund. Third, to the extent that some open-end funds may currently deliver higher returns because they set a lower highly liquid investment minimum and reasonably anticipated trade size compared to other funds with similar investment strategies but higher highly liquid investment minimums and reasonably anticipated trade sizes, the proposed amendments to apply uniform minimum for the stressed trade size and highly liquid investment minimum may minimize such a competitive advantage in performance and level the field among open-end funds. Finally, to the extent that investors would prefer funds with less volatile transaction prices for fund shares under the proposed swing pricing requirement, funds with larger trading costs may become less competitive relative to the funds with smaller trading costs.

Competition for investment flows between open-end funds and other collective investment vehicles within retail and institutional non-retirement space may also be affected. To the extent that the proposed amendments reduce investor dilution and the liquidity risk of open-end funds, some investors may increase their holdings of open-end funds relative to other investment vehicles. That said, we also recognize that some investors may attach more importance to investing in less liquid investments through a pooled vehicle with the ability to redeem on a daily basis and may view potential costs of dilution as the price of shareholder liquidity.

In addition, there are three reasons why investors may reduce their investment in open-end funds, making open-end funds less competitive with other types of investment vehicles, such as closed-end funds (*e.g.*, interval funds), ETFs, or CITs. First, holding open-end funds may

operating more efficient trading desks that help reduce trading costs, fund families improve the performance of their funds significantly relative to fund families with less efficient trading desks.

become relatively more costly compared to these other collective investment vehicles. Second, some investors may prefer to have holdings of less liquid investments, such as bank loan interests or investments that are valued using unobservable inputs that are significant to the overall measurement, such as long-dated currency swaps and three-year options on exchange-traded shares, within a collective investment vehicle structure. Third, some investors may be averse to the potential effects of the proposed swing pricing requirements, such as redeeming investors that may be charged for more than the dilutive costs they impose on the fund, as well as any investor averse to the increased uncertainty regarding the price at which the investor's fund transactions will ultimately execute.

For these reasons, some open-end funds may decide to offer their existing strategies in alternative fund structures, such as ETF or closed-end fund structures instead of maintaining these strategies within open-end funds under the proposed rule.⁵⁰⁶ Funds may make such a determination if doing so would be more cost-efficient, if they anticipate that investors would prefer to invest in their strategies via these alternative structures, or if their existing strategies would no longer be viable under the proposed amendments that call for an increased share of more liquid investments in funds' portfolios. This may give fund complexes or other financial institutions that have more experience in these alternative structures a competitive advantage over those that do not. In addition, some open-end fund strategies may be more amenable to being migrated to other structures than others. For example, a passive open-end fund that does not rely on specialized skills or knowledge of a fund manager may be relatively easy to offer as an ETF. On other hand, while some active investment strategies are available as ETFs, funds may consider the structure less attractive if they consider the daily revelation of their holdings

⁵⁰⁶ To the extent existing mutual funds convert to ETFs, certain investors in these funds may incur long-term capital gains taxes as a result of such conversions.

undesirable and they determine that obtaining the exemptive relief that would enable them to structure the fund as a non-transparent ETF would be too costly.⁵⁰⁷ Such funds may end up at a competitive disadvantage to those that can more easily offer their strategies in other structures under the proposal.

Competition between open-end funds and other collective investment vehicles, such as ETFs, and CITs,⁵⁰⁸ as well as separately managed accounts, within the retirement space may also be affected. As discussed in section III.B.2, processes and systems related to executing investors' orders within their retirement plans require knowledge of NAVs prior to sending investors' trades to funds, and it may be costly to change these processes. To the extent that retirement plans can offer collective investment vehicles or ETFs that are not open-end funds but have similar investment strategies to open-end funds at a lower cost, open-end funds would become less competitive within the retirement sector. One type of a vehicle that offers similar investment strategies to open-end funds at a lower cost is CITs. CITs differ in certain respects, however. For instance, CIT fees are bespoke for each plan, meaning that fees are individually negotiated and a plan participant cannot roll a CIT investment to an IRA when leaving the plan. Recent analysis from ICI demonstrates that, as of 2018, among all assets held in 401(k) plans, mutual funds comprise 43% while CITs amount to 33%.⁵⁰⁹ To the extent that the proposed hard close

⁵⁰⁷ See Precidian ETFs Trust, et al., Investment Company Act Release Nos. 33440 (Apr. 8, 2019) [84 FR 14690 (Apr. 11, 2019)] (notice) and 33477 (May 20, 2019) (order) and related application ("2019 Precidian") for an example of exemptive relief pertaining to non-transparent ETFs.

⁵⁰⁸ CITs are an alternative to mutual funds for defined contribution plans. Like mutual funds, CITs pool the assets of investors and invest those assets according to a particular strategy. Unlike mutual funds, which are regulated under the Investment Company Act of 1940, CITs are regulated under banking laws and are not marketed as widely as mutual funds; which reduces their operational and compliance costs compared with mutual funds.

⁵⁰⁹ See BrightScope/ICI working paper at 2.

requirement would make mutual funds more costly or difficult to trade relative to CITs, the share of CITs among retirement assets may further grow making open-end funds less competitive.

The proposed hard close requirement may have effects on competition among intermediaries. First, to the extent that intermediaries that are affiliated with fund complexes have an advantage in processing fund orders more swiftly compared to intermediaries that are not affiliated with the funds they offer, the former may not have to impose earlier order deadlines on investors, which would result in competitive advantage over intermediaries that are not affiliated with the funds they offer. Second, to the extent that larger intermediaries enjoy economies of scale and would be able to implement the hard close in a more cost-effective way relative to smaller intermediaries, smaller intermediaries may become less competitive as they may have to pass the implementation costs on to their investors.

To the extent that daily classifications would require a more frequent use of liquidity classification providers, demand for liquidity classification providers may increase. To the extent that funds would expand their outsourcing of liquidity classifications, competition among outside liquidity classification providers may increase. However, to the extent that some liquidity classification providers currently used by funds have operational capacity only for less frequent than daily provision of services, they may become less competitive compared to those that can provide the service on a daily basis.

The proposed amendments may also affect competition in markets for funds' underlying investments. To the extent that open-end funds would change their overall portfolio towards more liquid investments as a result of the proposed amendments, and to the degree that such reallocation would be correlated across funds, competition in the markets for more liquid investments may increase, while competition in market for less liquid investments may decrease,

which may further decrease the liquidity of these investments. For example, the proposed removal of the less liquid category may affect competition in the secondary market for bank loan interests. To the extent that open-end funds would demand bank loan interests that are more liquid and standardized in terms of the settlement process, competition in the bank loan market may be affected – both among the loan issuers and loan administrators. Specifically, increased demand for shorter settlement may drive bank loan market participants to compete with each other via offering shorter settlement for their trades, including among counterparties who are willing to contract for expedited settlement, to the extent that 15% of bank loan interests held by open-end funds⁵¹⁰ is a substantial enough share of the bank loan market for funds to have bargaining power in this market. To the extent that settlement times do not improve as a result of this amendment, bank loan interests with longer settlement times may become less competitive with loan interests that have shorter settlement times. Third, to the extent that open-end fund investors would substitute funds that hold bank loans for funds that hold close alternatives, such as high-yield bond funds, as a result of the proposal, demand for funds holding these instruments may increase. In addition, to the extent that open-end funds become more limited in how much of bank loan interests they can hold directly, open-end funds may increase their holdings of CLOs, which in turn could increase demand for CLOs and competition among CLOs. Finally, to the extent that the demand for bank loan interests decreases as a result of the proposal, these instruments would become less competitive overall.

3. Capital Formation

The proposed amendments may affect capital formation. First, to the extent that the above efficiency and competition effects result in investor outflows from the mutual fund sector,

⁵¹⁰ See note 422 and accompanying text.

capital formation within the sector may be reduced, while capital formation via banks and trust companies, ETFs, or other vehicles may increase. Second, to the extent that open-end funds would demand more liquid investments, the capital formation for issuers of these investments may increase. On the other hand, to the extent that funds would become more limited in the amount of investments with lower liquidity profiles they are able to make (such as investments that are valued using unobservable inputs that are significant to the overall measurement and investments that are currently classified as less liquid and illiquid), the capital formation for issuers of investments that are currently classified in less liquid categories may decrease.

For example, a recent paper⁵¹¹ shows that, although CLOs (the largest lender of leveraged loans) increase their purchases of outstanding bank loan interests in the secondary market at times when bank loan funds face outflows, they reduce their lending in primary market at the same time; which highlights the externality imposed by bank loan fund redemptions on capital formation for non-investment grade firms. Therefore, to the extent that open-end funds would hold fewer bank loans in their portfolios as a result of this amendment, the externality discussed above may be reduced and capital formation for non-investment grade firms could improve. On the other hand, to the extent that market settlement processes do not change, and to the extent that open-end bank loan funds are not converted to closed-end funds, the demand for bank loan interests may decrease, reducing capital formation for non-investment grade firms. This effect may be more pronounced for smaller issuers, to the extent that their securities are classified into less liquid categories more frequently compared to larger issuers.

Finally, the proposed amendments are expected to decrease the risk of fire sales of funds' underlying investments that may occur as a result of an increased selling pressure experienced by

⁵¹¹ Thomas Mählmann, *Negative Externalities of Mutual Fund Instability: Evidence from Leveraged Loan Funds*, 134 J. BANKING & FIN. (2022).

open-end funds during periods of high redemptions. This, in turn may increase confidence in markets for investments held in open-end funds' portfolios, thereby aiding capital formation for these investments.

E. Alternatives

1. Liquidity Risk Management

a. Stressed Trade Size and Significant Changes in Market Value

Although tightening of inputs would reduce fund discretion in the methodology for liquidity classification relative to the baseline, funds would still have discretion in the use of models to calculate price impact under the proposal. One alternative that could alleviate this concern would be to define a list of investments that qualify as highly liquid investments explicitly, as well as the list of illiquid investments or to define liquidity of each security, regardless of its amount held by a fund. For example, we could define highly liquid investments similarly to the way Federal banking agencies define high quality liquid assets ("HQLA") for the purposes of liquidity coverage ratio rules.⁵¹² This approach would simplify funds' compliance and may eliminate the need to calculate reasonably anticipated trade size or stressed trade size. As a result, an investment would be more consistently classified across funds, regardless of the amounts of this investment held by each fund. However, this approach would put the

⁵¹² See 12 CFR 50.20 (Office of the Comptroller of the Currency); 12 CFR 249.20 (Federal Reserve Board); 12 CFR 329.20 (Federal Deposit Insurance Corporation). HQLA are composed of Level 1 and Level 2 assets. Level 1 assets generally include cash, central bank reserves, Treasuries, certain agency securities, and certain marketable securities backed by sovereigns and central banks, among others. Level 2 assets are composed of Level 2A and Level 2B assets. Level 2A assets include, for example, certain debt guaranteed by a government sponsored entity or by a sovereign entity. Level 2B assets include, for example, investment grade corporate bonds, and publicly traded common equities that meet certain conditions, and investment grade municipal obligations. *See also* Bank for International Settlements (BIS), *Basel Committee on Banking Supervision, LCR30 High-Quality Liquid Assets* (final report, Dec. 31, 2019), available at https://www.bis.org/basel_framework/chapter/LCR/30.htm?tldate=20191231&inforce=20191215.

Commission in the position of determining the liquidity of each investment or investment type in the market, which may be difficult to maintain over time and may over- or under-include securities that may demonstrate equal liquidity characteristics, as this alternative regime only covers HQLA and not all investments that could be held by a fund.

As an alternative, we could have proposed a higher level of STS. For example, an STS that is equal to 100% would assume a full liquidation of a position. Under this alternative, the classification of an investment would depend on the absolute value of the whole position rather than a percentage of a position. This approach may more accurately reflect liquidity needs during the times of increased redemptions, to the extent that funds sell their most liquid holdings first in order to meet redemptions.⁵¹³ An STS that is higher than 10% but lower than 100% would have the effect that is similar but lower in magnitude. While a higher STS might better reflect that funds may need to sell a higher fraction of a particular investment than 10%, it nonetheless could be the case that a 10% STS is a better measure for determining liquidity under the proposed requirement for vertical slice assumption.

As another alternative, we could have proposed a lower level of STS. To the extent that some funds currently set their reasonably anticipated trade size lower than 10%, these funds may experience less changes in the classifications of their investments, which may result in less portfolio adjustments in order to comply with the 15% limit on illiquid investments and the highly liquid investments minimum. However, we believe that the 10% STS has the advantage of simulating a stress event and would better prepare funds to accommodate redemptions during

⁵¹³ For example, if a fund experiences net outflows equal to 10% of its net assets, and the fund's highly liquid assets comprise 20% of its portfolio, the fund would be able to fund all outflows with the proceeds from highly liquid assets. On the other hand, a 10% STS would test whether $10\% \times 20\% = 2\%$ of the fund's holdings could be sold without significantly changing the price of these holdings in order to meet redemptions. In this scenario, the fund may need to sell additional holdings that may be more costly to trade due to their lower liquidity classification.

such events. We seek comment on whether a level of STS lower than 10% would be a more appropriate STS that would ensure funds classify their investments in a way that would safeguard the fund and its shareholders during stressed times.

As another alternative, we could have proposed an STS that would depend on an individual fund's flows. For example, each fund could be required to use an STS that is equal to a certain percentile (*e.g.*, 99th percentile) of the fund's highest week of absolute flows or net outflows over a specified period of time (*e.g.*, 3, 5, or 10 years).⁵¹⁴ Under this alternative, funds would have a liquidity classification approach that is more tailored to their strategy and investor base. This approach would be less discretionary compared to the baseline but more discretionary compared to the proposal. To the extent that some funds may never experience net outflows that amount to 10% of their net assets, this alternative could be more appropriate for such funds. However, this alternative may result in inconsistent classifications among funds that have similar holdings. For example, if an established fund and a new fund have identical portfolios, the new fund would not have the same level of historical flows as the established fund, to the extent that the established fund existed during periods of stress and the new fund did not. This would result in two different STSs for identical funds.

As another alternative, we could have proposed an STS that would differ for funds with different investment strategies. For example, because during times of stress certain investments generally remain relatively liquid, we could have proposed a lower STS for funds with strategies that generally invest in more liquid assets, such as certain equities or government securities. However, under certain circumstances, large concentrations of any asset type (including those assets that are generally very liquid) held by a fund may weaken the fund's ability to dispose of

⁵¹⁴ Basing the calculation on absolute, rather than net, flows would be designed to reflect that large inflows have the possibility of translating to similarly large outflows.

such assets without a significant cost imposed on the fund's investors.⁵¹⁵ Therefore, we believe that requiring funds with different types of strategies to have the same STS would appropriately prepare all funds for stress events. In addition, although this approach would be more tailored to net flows trends specific to particular types of funds, this alternative may result in inconsistent application of the STS because there is no single taxonomy of fund types and there would be limited utility in proposing a new taxonomy given the previously noted concerns about an approach that differs by fund type.

For determining whether a sale or disposition would significantly change the market value of an investment, we could have proposed a higher or lower value impact standard. For example, we could have proposed that a sale or disposition of less than or more than 20% of a security listed on a national securities exchange or foreign exchange, or a decrease in sale price of less than or more than 1% for other investments, would result in a significant change in market value. Setting a stricter test for what would constitute a significant change in market value may lead funds to classify investments as less liquid than under the proposed rule, and correspondingly, setting a more lenient test would lead to more liquid classifications. Because funds currently use different value impact standards today, increasing or reducing the thresholds in the rule may align with some funds' current practices, while the proposed rule may align with other funds' current practices. Therefore, any approach to defining the value impact standard would require some funds to change their current methodologies.

⁵¹⁵ For example, during Mar. 2020, the U.S. Treasury market became less liquid than usual.

b. Amendments to Liquidity Classification Categories and Definitions

As an alternative, we could have proposed an approach that provides additional time, beyond seven calendar days, for a sale to settle and convert to U.S. dollars before a fund must classify the investment as illiquid. For example, we could have proposed to define moderately liquid investments as those that a fund reasonably expects to be able to sell within seven days without a significant change in market value and to be convertible to U.S. dollars within an additional seven days. Under this alternative, all the economic effects of removing the less liquid investment category discussed above would still be present, however, their magnitude may be reduced. As a result, not as many bank loan funds would have to rebalance their portfolios towards shorter-settlement loans and other investments, contract for expedited settlement, or restructure as a different investment vehicle. At the same time, the potential need to arrange expedited settlement to meet redemptions in the midst of market stress, as well as the potential borrowing costs a fund incurs to meet redemptions and the resulting dilution of fund investors, would not be reduced by as much as it would under the proposal. Therefore, we believe that aligning the time it takes to receive proceeds from the trade with the statutory requirement to meet investor redemptions within seven days would be a more economically sound step towards helping to ensure funds can meet redemptions within seven days and reducing investor dilution.

We could have proposed that a fund start measuring the number of days in which it reasonably expects a stressed trade size would be convertible to U.S. dollars without significantly changing its market value after the date of classification, instead of on the date of classification as proposed. Under this alternative, funds' liquidity classifications would be marginally less liquid. We understand some funds are using this method of counting the number

of days currently and would not have to make any changes to their methodology; however, those funds that begin counting on the date after classification would need to make changes and their classifications would be more liquid than they are currently. We believe that funds should measure days consistently in order to help funds meet redemptions within seven days without significant trading costs.

c. Frequency of Liquidity Classifications

As an alternative, we could have proposed to require classification on a less frequent basis, for example, weekly. Under this alternative, funds would have less operational burden relative to the proposed daily classification requirement. In addition, to the extent that portfolio allocations of funds are noisy on a daily basis due to, for example, trading related to tracking errors or inability to invest newly incoming cash from investors immediately, weekly classifications may be more appropriate from an operational perspective. However, weekly classifications could reduce the effectiveness of the rule by delaying the identification of significant liquidity issues, such as a rise in illiquid investments or a drop in highly liquid investments, particularly at the onset of market stress when a fund might begin to face increasing levels of redemptions. Therefore, we believe daily classifications would promote better monitoring of a fund's liquidity and ability to more rapidly understand and respond to changes that affect the liquidity of the fund's portfolio.

d. Definition and Calculation of Highly Liquid Investment

Minimum and Proposed Limit on Illiquid Investments

As an alternative, we could have proposed different highly liquid investment minimums for different type of funds, with lower highly liquid investment minimums for funds with strategies that generally invest in more liquid assets, such as equities or government securities.

However, under certain circumstances, large concentrations of any asset type (including those assets that are generally very liquid) held by a fund may weaken the fund's ability to dispose of such assets without a significant cost imposed on the fund's investors.⁵¹⁶ Therefore, we believe that requiring funds with different types of strategies to have a highly liquid investment minimum of at least 10% would appropriately prepare all funds for stress events. In addition, although this approach would be more tailored to net flows trends specific to particular types of funds, this alternative may result in the inconsistent application of highly liquid investment minimums because there is no single taxonomy of fund types and there would be limited utility in proposing a new taxonomy given the previously noted concerns about an approach that differs by fund type.

As another alternative, we could have proposed to require funds to maintain a highly liquid investment minimum that is lower or higher than the proposed 10% minimum, such as a minimum of at least 5% or 15%. A lower required threshold would require fewer changes to some funds' portfolios and would be less likely to affect performance. However, a lower minimum would result in funds being less prepared to meet redemptions in stressed periods. A higher highly liquid investment minimum would better ensure that a fund can meet redemptions in stressed periods, but would require more significant changes to some funds' portfolios and would likely have a larger effect on fund performance. Further, to the extent that certain funds would benefit from a highly liquid investment minimum that is greater than 10% because, for example, they have a concentrated shareholder base, such funds could establish a higher minimum under the proposal. Similarly, we considered a lower limit on a fund's illiquid investments, such as a 5% or 10% limit. The alternatives would further limit a fund's ability to

⁵¹⁶ See note 515.

acquire illiquid investments, which would limit the mismatch between the time a fund must pay redemptions and the time it can sell its investments without significant dilution. However, lowering the limit on illiquid investments while also expanding the definition of illiquid investment would more significantly affect funds that currently invest in less liquid investments.

As another alternative, we could have proposed to define investments used for collateral and margin purposes of moderately liquid and illiquid investments as moderately liquid and illiquid respectively. However, by reducing the fund's highly liquid investments by the value of amounts posted as margin or collateral, the proposed approach would avoid burdens associated with tracking specific securities posted as margin or collateral and reclassifying investments as they are posted as margin or collateral and recalled. The proposed approach also would not understate the liquidity of securities that are posted as margin or collateral because each security would continue to be classified based on its own characteristics rather than based on the characteristics of the derivative it is tied to, and instead the adjustments would only be made at the aggregate level.

2. Swing Pricing

This section discusses alternatives to the proposed swing pricing requirements. These alternatives include variations on the swing pricing requirements, variations on the thresholds used to determine the swing factor, and tools other than swing pricing that may achieve some of the same anti-dilutive goals of the proposed rule. These alternatives could be used independently or in combination with each other, and also could be paired with a hard close or the alternatives to the hard close we discuss in the next section, depending on the degree to which a given alternative does or does not require a fund to have complete order flow information at the time a fund strikes its NAV.

a. Alternative Approaches within the Swing Pricing Framework

As an alternative, we could have proposed different thresholds for net redemptions, net subscriptions, and inclusion of market impact. For example, we could have required funds to adjust the NAV only when net redemptions exceed a specified swing threshold, allowing funds to not adjust the NAV at all when redemptions are low in magnitude, as the proposal does for net subscriptions. To the extent that determining a swing factor is costly, only requiring funds to do so when net redemptions exceeded a threshold would limit the frequency with which funds incur such costs. However, because net redemptions are likely to dilute fund shareholders by a larger magnitude compared to net subscriptions, such an alternative may forego some of the benefits non-transacting fund shareholders would be expected to receive under the proposal.

The proposal also could have used a different market impact threshold, or no threshold, requiring that funds always include market impact in their swing factor calculations. A higher (lower) market impact threshold would reduce (increase) the number of days for which affected funds must calculate market impact costs for their portfolio investments, reducing (increasing) any related costs and operational challenges. However, a higher (lower) market impact threshold would also reduce (increase) the amount of dilution from redemptions that is recaptured by funds and accrued to non-transacting shareholders, assuming some funds do not opt to set lower market impact thresholds, as permitted under the proposal.

Similarly, the proposal could have used a different swing threshold for net subscriptions, or no threshold, requiring that funds always adjust their NAV in response to net subscriptions. A higher (lower) threshold for net subscriptions would reduce (increase) the number of days for which affected funds must calculate swing factors, reducing (increasing) any related costs and operational challenges. However, a higher (lower) threshold for net subscriptions would also

reduce (increase) the amount of dilution from subscriptions that is recaptured by open-end funds and accrue to non-transacting shareholders, assuming some funds do not opt to set lower threshold for net subscriptions, as permitted under the proposal.

As another alternative, we could have required that funds only apply a swing factor when they experience net redemptions rather than requiring that they also apply a swing factor when net subscriptions exceed 2%. Removing the requirement that funds apply a swing factor for net subscriptions would remove any operational costs funds may incur in implementing swing pricing for net subscriptions and may reduce the uncertainty that subscribing investors face regarding the share price at which their subscription orders will ultimately transact. However, while we recognize that subscriptions tend to be less dilutive than redemptions, the trading costs incurred by funds to accommodate subscriptions can still be dilutive. Therefore, non-transacting investors would be exposed to more dilution risk under this alternative.

As an alternative, the proposal could have also permitted funds to use a default swing factor (*e.g.*, 2% or 3%) when estimating trading costs accurately may be more difficult, such as in times of market stress. A fund's swing pricing administrator, adviser, or a majority of the fund's independent directors could be permitted to determine whether market conditions are sufficiently stressed to invoke this default swing factor. This alternative could benefit investors by mitigating shareholder dilution during periods of increased market uncertainty when standard analyses that funds use to estimate trading costs may fail to capture these costs accurately, to the extent that the standard analyses result in underestimation of trading costs. However, this alternative would provide funds with more discretion in determining when their swing factor applies in a way that is less transparent and consistent for fund shareholders, which increases the chance that funds may take advantage of such discretion in order to boost the performance of a

fund. In addition, a default swing factor may not be a good approximation of the actual trading costs a fund will incur during the periods it is applied, which could either overcharge transacting investors relative to the trading costs they impose on a fund or undercharge transacting investors, limiting the extent to which non-transacting shareholder dilution is mitigated.

As another alternative, the proposal could have defined the market impact threshold or inflow swing threshold on a fund-by-fund basis, with a reference to a fund's historical flows. For example, each fund could have been required to determine the trading days for which it had its highest outflows over a set time period, and set its market impact threshold based on the 1-5% of trading days with the highest redemptions. Similarly, each fund could have been required to determine the trading days for which it had its highest inflows or outflows over a set time period, and set its inflow or outflow swing threshold based on the 1-5% of trading days with the highest redemptions or subscriptions. While this alternative could allow funds to customize their swing thresholds to their historical flows, such an alternative may create strategic incentives for fund complexes to open and close funds depending on historical transaction activity. For example, to the degree that the estimation of market impact factors or other trading costs may be costly, or to the extent that investors prefer funds that do not apply swing factors as frequently, fund families may choose to close funds that experienced high redemptions to avoid the application of market impact factors. In addition, allowing funds to determine their own thresholds based on historical data may lead to less comparability across funds with respect to when investors expect funds to incorporate market impact or swing their NAV in response to net subscriptions or net redemptions.

b. Alternatives to Swing Pricing

*i. Liquidity Fees*⁵¹⁷

As an alternative to the proposed swing pricing requirement, we could have proposed to require funds to charge liquidity fees to transacting investors. There are various types of fees that we considered, which are discussed below.

(a) Dynamic Liquidity Fee

As an alternative, we could have proposed a dynamic liquidity fee that could, in principle, be equivalent to swing pricing from the point of view of the transacting investor. For example, this alternative could charge transacting investors the estimated trading, spread, and, in some cases, market impact costs associated with their subscription or redemption activity, allowing remaining shareholders to recoup these costs and mitigate dilution. Under this alternative, like under the proposed swing pricing framework, a fund would be required to determine a given day's liquidity fee for subscribers or redeemers based on the fund's net flows. Specifically, on a day with net redemptions (subscriptions), the fund would determine a liquidity fee that reflects the costs redeeming (subscribing) investors are expected to impose on the fund and would only charge redeeming (subscribing) investors the fee.

From an economic (namely non-operational) perspective, the difference between a liquidity fee and swing pricing is the effect on subscribing (redeeming) investors when a fund experiences net redemptions (subscriptions) and how the anti-dilution benefit is shared among transacting and non-transacting fund investors. Specifically, under swing pricing, in the case of net redemptions, subscribing investors would purchase fund shares at a discount relative to the NAV because there will be only one transaction price for fund shares determined by swing

⁵¹⁷ See also section II.D.1.a for additional discussion of liquidity fee alternatives.

pricing. Similarly, in the case of net subscriptions, redeeming investors would receive a premium for their redeemed shares because the transaction price for fund shares would be adjusted above the NAV. As a result, some of the recouped dilution costs from net redemptions (subscriptions) are diverted to other transacting investors – subscribers (redeemers) – rather than to non-transacting fund investors.⁵¹⁸ If the fund charges a liquidity fee, on the other hand, subscribing (redeeming) investors would not be purchasing (selling) fund shares at a discount (premium) in the case of net redemptions (subscriptions). Instead, the fee would be borne by redeemers (subscribers) without the commensurate benefit to subscribers (redeemers) and would fully accrue to the fund instead.⁵¹⁹ From this perspective, a liquidity fee may be fairer to redeeming (subscribing) fund investors in the case of net redemptions (subscriptions) compared to swing pricing. In addition, relative to swing pricing, liquidity fees would be more transparent regarding the liquidity costs transacting investors are charged and would not change day-to-day fund returns that investors observe.⁵²⁰

However, liquidity fees may be more operationally challenging to implement relative to the proposed swing pricing requirement. With swing pricing, a fund can pass liquidity costs on to redeeming or purchasing investors via downward or upward adjustments in the NAV to determine the transaction price for fund shares, with intermediaries receiving this price at the end

⁵¹⁸ Under the proposed swing pricing requirement, a fund would still recoup the full dilution costs associated with net redemptions by charging redeemers for both the dilution cost of redemptions as well as the cost of allowing subscribers to fund shares at a discount when the fund experiences net redemptions. Similarly, a fund would still recoup the full dilution costs associated with net subscriptions by charging subscribers for both the dilution cost of subscriptions as well as the cost of allowing redeemers to sell shares at a premium when the fund experiences net subscriptions in excess of 2%.

⁵¹⁹ See e.g., Eaton Vance Comment Letter at <https://www.sec.gov/comments/s7-16-15/s71615-151.pdf> for a description of mechanics and an assertion that fees are economically superior.

⁵²⁰ We recognize that while swing pricing may change the returns that investors see on a daily basis, it would not change monthly returns and returns reported on a fund's statement relative to a fee.

of the trading day. With a liquidity fee, however, a fund would have to rely on intermediaries to pass the liquidity costs on to transacting investors, which may involve greater operational complexity for intermediaries compared to swing pricing. While we recognize that some funds and their intermediaries are currently able to apply redemption fees under rule 22c-2, applying dynamic liquidity fees that may change in size from day-to-day may involve greater operational complexity and costs. For instance, liquidity fees may require more coordination with a fund's intermediaries because these fees need to be imposed on a transaction-by-transaction basis by each intermediary involved—which may be difficult with respect to omnibus accounts that intermediaries may create to aggregate all customer activity and holdings in a fund. We could instead require intermediaries to submit purchase and redemption orders separately to transact in a fund's shares, as some intermediaries already do. This could allow funds or their transfer agents to apply fees directly, but this type of requirement would also require some intermediaries to make operational changes because they would no longer be able to net otherwise offsetting customer purchases and redemptions.

As noted above, this type of dynamic fee would depend on fund flow information. A dynamic fee could be applied at the time of an investor transaction, in which case a hard close would still be required so that a fund has complete flow information by the time the NAV is struck, allowing the fund to determine the corresponding dynamic fee. Alternatively, the fee could be processed separately and applied to an investor's account on a delayed basis, obviating the need for a hard close because funds would no longer need complete flow information at the time of the initial investor transaction.⁵²¹ Delayed application of the fee, however, may raise complications related to collecting fee amounts from investors, particularly when an investor has

⁵²¹ See also section II.D.1.a for additional discussion of delayed fee application.

otherwise redeemed the full amount of its holdings. Follow-on fees also significantly increase the number of transactions to process, and may complicate reporting for custodians and advisers in situations where a transaction may occur in one reporting period but the fee related to the transaction is not applied until the next reporting period. In addition, an intermediary may face difficulties projecting upcoming cash balances in its client accounts if there are upcoming fees to be charged, but the amounts of those fees are unknown. The fund itself may also have challenges with projecting its own cash balance if it cannot predict when accrued fees will be received from each intermediary.

(b) Set Fee

Another alternative could be a simple fee framework that would require funds to charge a set fee of a specified percentage of the transaction (*e.g.*, 1%). This fee could be designed to either apply for all investor transactions, apply if redemptions or subscriptions exceed certain thresholds, or apply only on the redemption side or only on the purchase side. Such an alternative could reduce the operational burdens imposed on funds with respect to estimating trading costs and market impact and, in the case of a fee that is always charged, also would not require that a fund receive full order flow data before its NAV is struck. However, this alternative could also lead funds to over- or under-charge transacting investors because the trading costs a fund experiences for a given level of net redemptions or subscriptions may vary nonlinearly with the size of net redemptions or net subscriptions. For example, a fund trading to accommodate relatively small redemptions or subscriptions would most likely not result in market impact costs, while accommodating substantial redemption or subscription activity might result in market impact costs. As a result, a fund might undercharge transacting investors relative to the trading costs their activity imposes on a fund in cases when the set fee is lower than the trading costs

implied by the fund's aggregate investor activity. Therefore, in such instances this alternative may be less effective than swing pricing at mitigating dilution. Similarly, a fund might overcharge transacting investors relative to the trading costs their activity imposes on a fund in cases when the set fee is higher than the trading costs implied by the fund's aggregate investor activity, non-transacting investors are enriched at the expense of transacting investors. If such a set fee could be calibrated correctly, the effects of under- or over-charging transacting investors might offset each other. However, perfectly calibrating a fee would require that a fund correctly forecast the likelihood and magnitude of net redemptions and net subscriptions, as well as the corresponding trading costs associated with such flows, which may not be feasible.

(c) Fee Adjusted for Bid-Ask Spreads or other Transaction Costs

Relatedly, another simpler liquidity fee alternative could still use fees that are dynamic in the sense that they respond to market conditions such as bid-ask spreads or other known transaction costs associated with trading underlying investments, but are not tailored to the order flow a fund receives on a given day. For example, a fund could charge a liquidity fee on both subscriptions and redemptions on a given day that reflects the estimated costs of buying and selling the fund's underlying assets, respectively, excluding factors that depend on order flow, such as market impact. Such an alternative would still require funds to estimate trading costs, but would not require that a fund receive full order flow data before its NAV is struck.

Economically, this alternative is equivalent to dual pricing, discussed below, which instead charges these costs by establishing separate transaction prices for subscriptions and redemptions.

(d) Liquidity Fee When Trading Costs Significantly Increase⁵²²

As another alternative, we could have proposed a liquidity fee that would only apply under certain conditions, such as when trading costs are significantly above those typically experienced. Under this approach, either the Commission could define the circumstances that would trigger the fee or funds could define the conditions under which the fee would apply. In the latter case, a fund would establish written policies and procedures designed to mitigate dilution and recoup the costs the fund reasonably expects to incur as a result of shareholder redemptions.

In both scenarios, this alternative may be less costly for funds relative to the above alternatives, to the extent that applying the fee less frequently is less operationally burdensome. Under this alternative, funds would be able to recoup trading costs when these costs significantly increase (*e.g.*, during periods of market stress), without increasing the costs of operation during other times. The benefits of this approach to investors would depend on the relative magnitude of dilution realized during normal periods when trading costs are not significantly increasing versus the cost of applying an anti-dilution tool on a daily basis. To the extent that dilution during normal times is negligible while the operational burden of applying the fee is not, a fee that applies only when trading costs increase significantly may benefit fund investors. However, to the extent that dilution during normal times can accumulate to a significant amount over time, fund investors would not be protected against it. The benefit of this alternative would also depend on whether the specified conditions that trigger the fee could be anticipated by investors prior to the fund imposing the fee. To the extent that investors would be able to forecast that a fund is moving closer to the fee trigger, they may decide to preemptively redeem their shares

⁵²² See also section II.D.3.b for additional discussion of this alternative.

before the fee is initiated, potentially exacerbating the first-mover advantage and contributing to further fund stress.

The economic tradeoffs of this alternative would also depend on whether a fund defines the circumstances under which the fee would apply or the Commission would define such circumstances. Under the first scenario, funds would be able to tailor the triggers to their specific circumstances, such as the fund size, the portfolio characteristics, and investor base composition, as well as the historically observed dilution. As a result, funds may be better equipped to protect their investors during times of increased trading costs. However, under this scenario, fund discretion over the fee triggers may result in some funds defining triggers in a suboptimal way in order to compete with similar funds for investors. Under the second scenario, funds would not have such discretion, which could better protect investors from dilution. However, because mutual funds vary significantly in their portfolios and sizes, it would be challenging to establish a trigger that is not dependent on timely flow information and would equally protect investors of all funds from dilution.

(e) Liquidity Fee for Funds That Are Not Primarily
Highly Liquid When Trading Costs Increase Significantly

As another alternative, we could have proposed a liquidity fee only for certain types of funds. For example, we could have proposed a fee that funds that are not primarily highly liquid (*e.g.*, funds that hold less than an identified percentage of their portfolio in highly liquid assets, such as less than 50%, 66%, or 75%) would be required to impose during periods of increased trading costs. Under this alternative, affected funds and their investors would experience similar benefits and costs as in the alternative above. However, the aggregate magnitude of these effects would be smaller because it would not affect all mutual funds. To the extent that funds that invest primarily in highly liquid investments do not experience trading cost increases that are as

substantial as all other funds during periods of market stress, this alternative may benefit investors in primarily highly liquid funds by not imposing additional costs related to establishing policies and procedures related to the liquidity fee. However, all funds would have to establish procedures for monitoring whether they hold primarily highly liquid investments or not.

The cost savings of this alternative relative to the alternative that would require a fee for all funds during periods of increased trading costs would depend on how often highly liquid investments may become temporarily less liquid. To the extent that funds expect certain investments that are highly liquid during normal times to become less liquid during stress periods, these funds may have to preemptively establish compliance around the liquidity fee implementation. This effect would be more pronounced for funds that are near the 50% threshold.

This alternative may also affect competition in the mutual fund sector, to the extent it could make investment in mutual funds that are not primarily highly liquid less attractive to investors. In addition, some funds may exit some of their moderately liquid and illiquid investments in order to fall under the definition of primarily highly liquid. This, in turn, may make markets for moderately liquid and illiquid investments more illiquid and negatively affect capital formation for these investments.

ii. Dual Pricing⁵²³

As an alternative to the proposed swing pricing requirement, we could have required that funds implement dual pricing, which is used in some other jurisdictions. Dual pricing would effectively set two transaction prices for a fund: one price for purchases and another for redemptions. The price adjustments for the funds' shares could either be constant or calculated to

⁵²³ See also section II.D.1.b for additional discussion of this alternative.

reflect the estimated costs of buying and selling the fund's underlying investments, excluding factors that depend on order flow, such as market impact. The first approach would be similar to one of the set fee alternative discussed above, as it would be less reliant on fund flow information than the proposed swing pricing requirement, but the charge imposed on transacting investors would also less accurately reflect the specific liquidity features of the fund's current investments in light of the size of the redemptions the fund is experiencing. As an example of the second approach, a fund would set its purchase price to be the fund's NAV on that day plus an amount that reflects the potential trading costs such as bid-ask spreads that subscriptions impose on a fund given current market conditions, and exclude factors such as market impact that may require knowledge of the fund's order flow on that day. Similarly, the redemption price of a fund share would be the fund's NAV minus an amount that reflects the potential trading costs redemptions would impose on a fund given current market conditions. Operationally, dual pricing would not require that funds receive complete order flow data prior to determining their dual transaction prices, removing the need for a hard close. However, dual pricing would require intermediaries and other market participants to update their processes to handle two potential transaction prices rather than a single NAV, which would impose costs on such intermediaries. In addition, intermediaries that currently submit a single net order (*e.g.*, using omnibus accounting) would need to separately submit aggregate purchases and aggregate redemptions to a fund, which would impose costs on such intermediaries.

*iii. Spread Cost Adjustment on Days with Estimated Net Outflows*⁵²⁴

Another alternative to the proposed swing pricing requirement would be to require that funds use estimated flows to determine whether they expect to have net redemptions on a given

⁵²⁴ See also section II.D.3.a for additional discussion of this alternative.

day and, if so, to require that the fund adjust its current NAV to reflect good faith estimates of spread costs.⁵²⁵ This alternative would not require funds to assess market impact, nor would it require that funds use swing pricing on days when a fund estimates that there will be net subscriptions. By setting the price for fund shares to reflect good faith estimates of spread costs on days when a fund estimates it will have net outflows, the fund would protect non-transacting investors from dilution due to the spread costs, to the extent that the fund correctly estimates the direction of the net flows. This approach could ameliorate first-mover advantage because redeeming shareholders would be required to pay at least the spread component of transaction costs imposed on the fund by their redemptions on days where the fund accurately predicts that it will experience net redemptions. As a result, this alternative may help to mitigate run risk and potential fire sales of funds' portfolio holdings. However, basing the decision to apply a spread cost adjustment on estimated flows may reduce the effectiveness of this alternative by possibly causing the fund to adjust its share price down on days where transacting investors ultimately do not dilute remaining fund shareholders. While applying a spread cost adjustment on days when a fund incorrectly predicts net redemptions could result in more shareholder dilution than if an adjustment had not been applied, this possibility would not impede the effectiveness of the alternative to mitigate first-mover advantage.

The alternative would impose lower costs on funds and intermediaries relative to the proposed swing pricing requirement because there would be no requirement for a hard close and

⁵²⁵ U.S. GAAP states that if an asset measured at fair value has a bid price and an ask price (for example, an input from a dealer market), the price within the bid-ask spread that is most representative of fair value in the circumstances shall be used to measure fair value, and that the use of bid prices for asset positions is permitted but not required for these purposes. *See* FASB ASC 820-10-35-36C. Therefore, we recognize that requiring a fund's share price to be determined using bid-side values for the underlying investments would introduce inconsistency in instances where the fund does not use bid prices to value securities for purposes of U.S. GAAP. As a result, funds needing to apply different pricing for these different purposes could experience incremental effort and cost.

no requirement to estimate market impact factors or other transaction costs. By limiting the adjustment of the share price to a step function (*i.e.*, share price is either adjusted to reflect spread costs or not at all), the alternative avoids any imprecision that may be introduced by having the size of the fund's share price adjustment also depend on the size of predicted net outflows. To the extent that funds currently do not implement swing pricing because of existing operational challenges or any stigma that may be associated with the use of that tool, this alternative would likely overcome these challenges by prescribing an approach that is mandatory and that could be implemented more easily under existing operational structures compared to the proposed swing pricing requirement that would rely on a hard close while still providing some anti-dilution benefits to mutual fund investors.

iv. A Choice of an Anti-Dilution Tool

As another alternative to the proposed swing pricing requirement, we could have proposed to require all funds to implement an anti-dilution tool, while allowing them to choose among several tools, such as swing pricing, liquidity fees, or other alternative approaches discussed above. This alternative may benefit funds and their investors, to the extent that certain anti-dilution tools are better suited for certain types of funds in reducing investor dilution. For example, funds that have infrequent subscriptions or redemptions may find a liquidity fee less operationally costly to implement compared to other tools. Similarly, funds that have more volatile flows on a day-to-day basis may find that swing pricing would be a more effective approach to combat dilution because the trading costs would be recouped instantaneously with investors' trading activity, compared to liquidity fees that would not be recouped by a fund until a later date. Further, funds that have de minimis transaction costs for prolonged periods of time may find a liquidity fee that would only apply during stressed conditions more appropriate from

the operational prospective. This alternative may benefit mutual fund investors by increasing investor choice relative to the proposal. To the extent that different investors have varying preferences for anti-dilution tools, they would be able to invest in the mutual fund sector according to their preferences. As such, this alternative may increase competition in the mutual fund sector. However, this alternative could be more costly relative to the proposal and other alternatives discussed above because fund intermediaries and service providers would need to establish systems that accommodate all the anti-dilution options that would exist across mutual funds.

3. Hard Close Requirement

The proposal would require a hard close, meaning that an order may be executed at the current day's price only if the fund or its designated parties receive the order before 4 p.m. ET. As discussed in section III.B.3, funds and intermediaries are likely to incur significant costs in order to comply with the hard close requirement. Therefore, we have considered alternative approaches to the hard close requirement.

a. Indicative Flows⁵²⁶

One alternative to the proposed hard close requirement would be to require that funds receive indicative flow information from intermediaries by an established time. This approach would be less likely to affect investors who place orders near the 4 p.m. ET pricing time, as intermediaries may not necessarily need to establish earlier cut-off times. While intermediaries would incur one-time costs to update their systems and processes to calculate indicative flow information, as well as ongoing costs related to the transmission of the indicative flow information to funds or their designated parties, these costs would be lower than the costs

⁵²⁶ See also section II.D.2.a for additional discussion of this alternative.

intermediaries would incur under the proposed hard close requirement. The proposed hard close requirement, however, would likely not result in the same ongoing costs for intermediaries that this alternative would require. For example, intermediaries may need to develop a process for estimating indicative flows and sending them to funds, separate from the process of submitting orders to fund transfer agents and Fund/SERV. Likewise, funds would need to develop processes for receiving the indicative flow information and monitoring whether each intermediary has provided indicative flow information in a timely manner. Moreover, indicative flow information likely would be less accurate and complete than the flow information funds would receive under the proposed hard close requirement. As a result, funds' swing pricing determinations may be less accurate than under the proposal (*e.g.*, a fund may not adjust its NAV when it should have, or vice versa, due to incomplete flow information), which would limit a fund's ability to mitigate dilution through swing pricing.

b. Estimated Flows⁵²⁷

Another alternative approach to a hard close would be to continue allowing funds to use reasonable estimates of their flows in determining transaction costs from investors' trading activity and to provide them with a safe harbor in cases where the produced estimates of the funds' net flows are different from realized net flows. This approach would have limited effect on intermediaries, as funds would base their estimates on models incorporating available information. However, because funds would base anti-dilution decisions on less precise flow data, this alternative could reduce the effectiveness of a fund's swing pricing by possibly causing it to adjust its NAV on days where transacting investors ultimately do not dilute remaining fund shareholders. On days where a fund estimates the direction of flows incorrectly, *e.g.*, if a fund

⁵²⁷ See also section II.D.2.b for additional discussion of this alternative.

forecasts that it will experience net subscriptions but actually experiences net redemptions, applying a swing factor could result in more shareholder dilution than if a swing factor had not been applied. This may make mutual funds less attractive to investors. However, the success of this approach would depend on how well funds can predict the additional flows that they receive after their NAV has been determined.

c. Later Cut-Off Times for Intermediaries⁵²⁸

Another alternative is to establish later cut-off times for intermediaries to submit order flow information, for example, two or three hours after the fund's pricing time (*e.g.*, 6 or 7 p.m. ET if the fund's pricing time is 4 p.m. ET). Under this alternative, intermediaries would have more time to submit their orders to funds and may not need to impose a cut-off time for investor orders earlier than the pricing time. To the extent that investors would not be subjected to an earlier cut-off time under this alternative, investors that use affected intermediaries would not experience disadvantage over investors that trade with the fund directly in terms of different degree of market risk described above. However, although this alternative may be more beneficial to investors compared to the proposed hard close requirement, it would require similar operational changes and impose similar costs. For example, retirement plan recordkeepers would still need to submit orders before receiving funds' prices. This alternative, however, may be less disruptive than the proposed hard close requirement for intermediaries that typically provide orders by around 6 or 7 p.m. ET, which we understand is the case for many broker-dealers. Under this approach, funds would likely need to publish their prices later than current practice to provide time to make swing pricing decisions. This could delay the distribution of pricing information to the public and to intermediaries. However, because intermediaries would no

⁵²⁸ See also section II.D.2.c for additional discussion of this alternative.

longer be revising orders contingent on the fund's share price to the same extent, this may not be as disruptive as a later NAV publication would be under the status quo.

4. Commission Reporting and Public Disclosure

As an alternative, we could have proposed public disclosure of position-level liquidity classifications. This alternative may provide more information about a fund's liquidity risk profile to investors, thereby improving their portfolio allocation decisions. While funds may have gained some insight into how other funds manage liquidity risk via their narrative disclosures, to the extent those disclosures tended to be boilerplate, observing other funds' liquidity profiles might provide some information that is useful in a fund's own liquidity classification process. Although the process for funds' liquidity classifications will be more uniform across funds under the proposal, we recognize that the same investment may still be classified differently by different funds due to classifications being position-dependent (*i.e.*, the more of a security is held by a fund, the less liquid its classification would be). Therefore, even if position-level liquidity classifications are disclosed, the comparison of classifications across funds may still not be as meaningful for investors in all cases. Position-level disclosure also could potentially reveal additional information about a fund's trading strategy if, for example, a security was classified as illiquid solely because the fund had material non-public information about the security. In addition, investors also may find the proposed aggregate liquidity information more useful, to the extent that they are focused on a fund's overall liquidity profile rather than the liquidity of any particular investment.

We also could have proposed filings would become public when they are filed as opposed to keeping the filings confidential until 30 days after they are filed (60 days after the end of the reporting period). This could take several forms. For example, we could maintain the

proposed filing deadline, which would mean that a fund’s filing would be due and become public 30 days after the end of the reporting period. Alternatively, we could pair a publication-upon-filing framework with lengthening the delay between the end of the reporting period (for example, to 45 days after the end of the period). Making filings public immediately upon filing could improve investor understanding of fund portfolios because they would be able to review the information closer to real time (though still with a substantial delay), assuming that the filing deadline was 30 days after each month end as proposed. This would enhance the ability of investors to choose the right fund that suits their portfolio construction goals. Many funds already make portfolio information public with a 30-day delay on a voluntary basis, but this alternative would result in a consistent framework across the entire open-end fund industry. This approach would also reduce the amount of information the Commission would be required to keep confidential.⁵²⁹ On the other hand, to the extent funds are at risk of predatory trading or copy-catting when their portfolios become public sooner, this approach could serve to increase those risks.⁵³⁰

We could have taken the inverse approach as well. Instead of providing for publication at the same time information is filed, we could have provided for a longer period between the time information is filed and when it is made public, and also could have extended the deadline for filing. The benefits and costs of this alternative would likewise be the reverse of the publication-upon-filing alternative. Namely, this alternative could reduce the risks of predatory trading or copy-catting because by the time the information became public, it would be more likely to be

⁵²⁹ Certain data would remain confidential, such as the composition of the fund’s “miscellaneous securities.” *See supra* section II.E.1.d.

⁵³⁰ *See supra* note 287 (comment letter from major industry participant citing research showing that risk of predatory trading or copycatting as a result of increased publication frequency is overstated).

stale. On the other hand, it would also be less useful to investors seeking to understand their funds and, if we paired a delay in publication with a delay in the deadline for filing with the Commission, it would be less useful to the Commission as well.

F. Request for Comment

We request comment on all aspects of the economic analysis of the proposed amendments. To the extent possible, we request that commenters provide supporting data and analysis with respect to the benefits, costs, and effects on competition, efficiency, and capital formation of adopting the proposed amendments or any reasonable alternatives. In particular, we ask commenters to consider the following questions:

234. What additional qualitative or quantitative information should be considered as part of the baseline for the economic analysis of these amendments?
235. Are the benefits and costs of proposed amendments accurately characterized? If not, why not? Should any of the costs or benefits be modified? What, if any, other costs or benefits should be taken into account? If possible, please offer ways of estimating these benefits and costs. What additional considerations can be used to estimate the benefits and costs of the proposed amendments?
236. Are the benefits and costs of the proposed swing pricing amendments accurately characterized? If not, why not? What, if any, other costs or benefits should be taken into account? If possible, please offer ways of estimating these benefits and costs.
237. Are the effects on competition, efficiency, and capital formation arising from the proposed amendments accurately characterized? If not, why not?

238. Are the economic effects of the above alternatives accurately characterized? If not, why not? Should any of the costs or benefits be modified? What, if any, other costs or benefits should be taken into account?
239. Are the economic effects of the alternative approaches to implementing swing pricing adequately characterized? If not, why not? Should any of the costs or benefits be modified? What, if any, other costs or benefits should be taken into account?
240. Are there other reasonable alternatives to the proposed amendments that should be considered? What are the costs, benefits, and effects on competition, efficiency, and capital formation of any other alternatives?
241. What effects would the proposed changes have on (1) investment options available to investors if certain asset classes are not available or are less available in open-end vehicles (including UITs); and (2) the markets for those underlying assets, including, but not limited to, the market for bank loan interests.
242. How likely is it that open-end fund managers will choose to offer their products via different structures, such as ETFs, closed-end funds, or CITs, rather than comply with the proposed requirements? Relatedly, how likely is it that investors will move assets from open-end funds to other types of funds in response to the proposed requirements?
243. Are there data sources or data sets that can help refine the estimates of the benefits and costs associated with the proposed amendments? If so, please identify them.
244. Are there data sources that can help us estimate the aggregate number and value of transactions in mutual fund shares with more accuracy? If so, please identify them.

245. Which third-party service providers would be affected the most by the proposed amendments? Please explain why. If possible, please provide data on the number and size of such entities.
246. Would these amendments cause a fund or any third-party service providers assessing liquidity to have new or unforeseen burdens? Would this increase the cost of third-party services?
247. Would certain types of funds have to substantially rebalance their portfolios as a result of the proposed changes to the liquidity risk management program? Provide a list of specific investments that funds would have to hold in limited amounts under the proposed amendments. Are there close alternatives to these investments that funds would be able to hold? For example, can bank loan interests be substituted with CLOs? If no, please explain why.
248. Can the vertical slice assumption for the purposes of calculation of stressed trade size be implemented for all types of fund investments? For example, are there indivisible minimum trade units for any investments for which 10% of such an investment would not be possible to sell due to such indivisibility? How do funds currently operationalize the calculation of the reasonably anticipated trade size: via a vertical slice assumption or in any other way for indivisible investments?
249. What price impact models do funds currently use for liquidity classifications of their investments? Are there advantages of using one model over another? Are there price impact models available to use only through certain third-party service providers assessing liquidity? Do service providers assessing liquidity vary in costs for their services?

250. What would be the costs of obtaining daily pricing and liquidity information for the purposes of daily liquidity classifications? What are the current costs related to obtaining such information?
251. Do funds currently monitor their liquidity classifications on a daily basis? Are there specific types of funds that do not currently evaluate their classifications more frequently than monthly?
252. To what extent would funds implement swing pricing if it were optional, rather than mandatory, as long as funds received complete order flow data prior to determining their NAVs on a given day?
253. How dilutive are fund purchases relative to fund sales? How do the benefits of swing pricing in response to purchases compare to the benefits of swing pricing in response to sales?
254. Which components of trading costs contribute the most to fund dilution? How significant are market impact costs? If we adopted an alternative that excluded market impact from swing factor calculations, would the rule's effectiveness at mitigating dilution be significantly reduced?
255. Of the alternatives to swing pricing discussed above, which strikes the most appropriate balance of investor benefits and implementation costs? Is it more operationally complex and costly to charge fund investors a liquidity fee, or to use dual pricing?
256. What are the benefits of processing trade information via omnibus accounts? How costly would transmitting individual investor order information to funds be for intermediaries? Are per-trade costs the same for all intermediaries? Would there be

other ancillary benefits associated with a move away from omnibus account and order netting?

257. What other costs or impediments beyond system switching costs would the proposed hard close requirement impose? Will these costs be different for different types of intermediaries? If so, what is the differential? How do these costs compare to the potential future benefits of the hard close, such as more efficient order processing?
258. Will certain intermediaries be unable to bear the costs of the proposed hard close requirement? If yes, please explain why. Would the costs differ, depending on whether an intermediary or a service provider is affiliated with a fund family or not?
259. What effect will a hard close requirement have on the availability of certain transaction types offered to investors? Please list the types of transactions that would become unavailable under the proposed hard close requirement?
260. Would investors and other data users benefit significantly from the proposed monthly N-PORT disclosures? Would the quality and availability of mutual funds' portfolio data available to investors and other users improve significantly under the proposed amendments?
261. Would the proposed aggregate liquidity disclosure benefit investors? What are the benefits and costs of such disclosure relative to investment-by-investment liquidity classification disclosure? Are there any substantial burdens that funds would experience with the detailed liquidity classification disclosure beyond the costs associated with the disclosure process itself?

IV. PAPERWORK REDUCTION ACT

A. Introduction

Certain provisions of the proposed amendments contain “collection of information” requirements within the meaning of the Paperwork Reduction Act of 1995 (“PRA”).⁵³¹ We are submitting the proposed collections of information to the Office of Management and Budget (“OMB”) for review in accordance with the PRA.⁵³² The proposed amendments would have an effect on the current collection of information burdens of rules 22e-4 and 22c-1 under the Investment Company Act, as well as Forms N-PORT and N-CEN under the Investment Company Act and Form N-1A under the Investment Company Act and the Securities Act.

The titles for the existing collections of information we are amending are: (1) “Rule 22e-4 (17 CFR 270.22e-4) under the Investment Company Act of 1940, Investment Company Liquidity Risk Management Programs” (OMB control number 3235-0737); (2) “Rule 22c-1 Under the Investment Company Act of 1940, Pricing of redeemable securities for distribution, redemption and repurchase” (OMB control number 3235-0734); (3) “Rule 30b1-9 and Form N-PORT” (OMB control number 3235-0730); (4) “Form N-1A under the Securities Act of 1933 and under the Investment Company Act of 1940, Registration Statement of Open-End Management Investment Companies” (OMB control number 3235-0307); and (5) “Form N-CEN” (OMB control number 3235-0729).

An agency may not conduct or sponsor, and a person is not required to respond to, a collection of information unless it displays a currently valid OMB control number. Each requirement to disclose information, offer to provide information, or adopt policies and procedures constitutes a collection of information requirement under the PRA. These collections

⁵³¹ 44 U.S.C. 3501 through 3521.

⁵³² 44 U.S.C. 3507(d); 5 CFR 1320.11.

of information would help funds manage liquidity, mitigate dilution of shareholders' interests, and provide information to the Commission and investors. The Commission staff would also use the collection of information in its examination and oversight program in identifying patterns and trends across registrants. We discuss below the collection of information burdens associated with the proposed rule and form amendments.

B. Rule 22e-4

Rule 22e-4 requires funds to establish a written liquidity risk management program that is reasonably designed to assess and manage liquidity risk. Several of the proposed amendments to rule 22e-4 would modify existing collection of information requirements. These amendments include:

- Changing the framework for classifying the liquidity of a fund's portfolio investments, including requiring use of a stressed trade size, defining the value impact standard, and requiring daily reviews of the fund's liquidity classifications. We believe funds would update their policies and procedures that incorporate liquidity risk management program elements to reflect these proposed amendments.
- Expanding the scope of funds that must determine and maintain a highly liquid investment minimum. As a result of this proposed change, additional funds would be required to comply with the current rule's collection of information requirements related to highly liquid investment minimums. These collection of information requirements include:
 - The fund's investment adviser or officers designated to administer the liquidity risk management program must provide a written report to the

fund's board at least annually that describes a review of the adequacy and effectiveness of the fund's liquidity risk management program, including the operation of the highly liquid investment minimum.

- The fund must adopt and implement policies and procedures for responding to a shortfall of the fund's assets that are highly liquid investments below its highly liquid investment minimum, which must include reporting to the fund's board of directors with a brief explanation of the causes of the shortfall, the extent of the shortfall, and any actions taken in response, and, if the shortfall lasts more than 7 consecutive calendar days, an explanation of how the fund plans to come back into compliance with its minimum within a reasonable period of time.
- A fund must maintain a written record of how its highly liquid investment minimum and any adjustments to the minimum were determined, as well as any reports to the board regarding a shortfall in the fund's highly liquid investment minimum, for five years, the first two years in an easily accessible place.

The respondents to rule 22e-4 are open-end management investment companies, including, under certain circumstances, in-kind ETFs and the principal underwriters or depositors of unit investment trusts, but excluding money market funds. None of the proposed amendments would affect the rule's collection of information requirements for unit investment trusts or in-kind ETFs. Compliance with rule 22e-4 is mandatory for funds. Information provided to the Commission in connection with staff examinations or investigations is kept confidential subject to the provisions of applicable law. If information collected pursuant to rule 22e-4 is reviewed by

the Commission's examination staff, it is accorded the same level of confidentiality accorded to other responses provided to the Commission in the context of its examination and oversight program.

In our most recent Paperwork Reduction Act submission for rule 22e-4, we estimated a total aggregate annual hour burden of 28,150 hours, and a total aggregate annual external cost burden of \$0.⁵³³ Based on filing data as of December 2021, we estimate that 11,488 funds would be subject to these proposed amendments.⁵³⁴ The proposed collections of information are designed to help increase the likelihood that funds are better prepared to manage liquidity during stressed conditions, and help protect investors from dilution. These collections would also help facilitate the Commission's inspection and enforcement capabilities.

The table below summarizes our PRA initial and ongoing annual burden estimates associated with the proposed amendments to rule 22e-4. The following estimates of average burden hours and costs are made for purposes of the Paperwork Reduction Act.

Table 8: Rule 22e-4 PRA Estimates

	Internal initial burden hours	Internal annual burden hours ¹	Wage rate ²	Internal time costs	Annual external cost burden
RULE 22e-4 PRA ESTIMATES					
Adopting and implementing revised policies and procedures	9 hours	4 hours ³	\$463 ⁴	\$1,852	\$1,000 ⁵
	3 hours	1 hour	\$3,313 ⁶	\$3,313	\$0

⁵³³ The most recent rule 22e-4 PRA submission was approved in 2020 (OMB Control No. 3235-0737). That PRA estimated that 846 fund complexes were subject to rule 22e-4. We continue to believe that funds within the same fund complex would experience certain efficiencies in responding to the collection of information requirements and, depending on the size of the fund complex, per fund costs may be higher or lower than our estimated averages; however, we are changing from a fund complex to a per fund estimate based on staff experience with per fund burdens and to improve the quality of this estimate.

⁵³⁴ As of Dec. 2021, we estimate 11,488 open-end funds, excluding money market funds.

	Internal initial burden hours	Internal annual burden hours ¹	Wage rate ²	Internal time costs	Annual external cost burden
RULE 22e-4 PRA ESTIMATES					
Board reporting		1 hour ⁷	\$319 ⁸	\$319	\$531 ⁹
Recordkeeping		1 hour	\$86 ¹⁰	\$86	\$0
Total new annual burden per fund		7 hours		\$5,570	\$1,531
Number of funds		× 11,488 funds ¹¹		× 11,488 funds	× 11,488 funds
Total new aggregate annual burden		80,416 hours		\$63,988,160	\$17,588,128
TOTAL ESTIMATED BURDENS INCLUDING AMENDMENTS					
Current aggregate annual burden estimates		+ 28,150 hours			+ \$0
Revised aggregate annual burden estimates		108,566 hours			\$17,588,128

Notes:

1. Includes initial burden estimates annualized over a 3-year period.

2. The Commission's estimates of the relevant wage rates are based on the salary information for the securities industry compiled by Securities Industry and Financial Markets Association's Office Salaries in the Securities Industry 2013, as modified by Commission staff ("SIFMA Wage Report"). The estimated figures are modified by firm size, employee benefits, overhead, and adjusted to account for the effects of inflation.

3. Reflects 9 hours of initial internal burden hours of amending existing policies and procedures, annualized over a 3-year period, and 1 hour of ongoing annual internal burden to maintain the policies and procedures.

4. This blended rate is based on the following: \$360 (hourly rate for a senior portfolio manager); \$510 (hourly rate for an assistant general counsel); \$580 (hourly rate for a chief compliance officer); and \$400 (hourly rate for a compliance attorney).

5. We estimate that the average cost of external services is \$1,000 per fund. The Commission's estimates of the relevant wage rates for external time costs, such as outside legal services, take into account staff experience, a variety of sources including general information websites, and adjustments for inflation. The cost of external services for rule 22e-4 has not been previously estimated. We estimate this cost for external services for the proposed amendments to rule 22e-4 taking into account staff experience and outreach on liquidity classification vendors.

6. This blended rate is based on the following estimates: 2 hours of time for a board of directors at an average cost per hour of \$4,770 and 1 hour of time for a compliance attorney to prepare materials for the board's review at an average cost per hour of \$400. This estimated cost for a board of directors assumes an average of 9 board members and has been adjusted for inflation.

7. Although the average reporting burden per fund may be greater than 1 hour when a fund has to report a highly liquid investment minimum shortfall to its board, we estimate that not all funds would experience a highly liquid investment minimum shortfall each year.

8. This blended rate is based on the following: \$360 (hourly rate for a senior portfolio manager); \$339 (hourly rate for a compliance manager); \$510 (hourly rate for an assistant general counsel); and \$68 (hourly rate for a general clerk).

9. This estimated burden is based on the estimated wage rate of \$531/hour, for 1 hour, for outside legal services. The Commission's estimates of the relevant wage rates for external time costs, such as outside legal services, take into account staff experience, a variety of sources including general information websites, and adjustments for inflation.

10. This blended rate is based on the following: \$104 (hourly rate for a senior computer operator); and \$68 (hourly rate for a general clerk).

11. Includes open-end funds, excluding money market funds, as reported on Form N-CEN as of Dec. 2021. The internal and external burdens in the table represent per fund estimates. The most recent rule 22e-4 PRA submission approved in 2020 (OMB Control No. 3235-0737) used per fund complex estimates. We continue to believe that funds within the same fund complex would experience certain efficiencies in responding to

the collection of information requirements and, depending on the size of the fund complex, per fund costs may be higher or lower than our estimated averages.

C. Rule 22c-1

Rule 22c-1 enables funds to use swing pricing as a tool to mitigate shareholder dilution. Swing pricing is currently optional for certain open-end funds. The proposed amendments would amend rule 22c-1 to make swing pricing for open-end funds (other than ETFs or money market funds) mandatory instead of optional. Funds that would be required to implement swing pricing under our amendments must establish and implement swing pricing policies and procedures.⁵³⁵ The policies and procedures must: (1) provide that the fund will adjust its net asset value if the fund has net redemptions or if it has net purchases exceeding the inflow swing threshold; and (2) specify the process for determining the swing factor. The rule also would require a fund to retain a written copy of the periodic report provided to the board prepared by the swing pricing administrator that describes, among other things, the swing pricing administrator's review of the adequacy of the fund's swing pricing policies and procedures and the effectiveness of their implementation. The retention of these records is necessary to allow the staff during examinations of funds to determine whether a fund is in compliance with its swing pricing policies and procedures and with rule 22c-1.

Compliance with rule 22c-1(b) would be mandatory for funds subject to the proposed swing pricing requirements. Based on filing data as of December 2021, we estimate that 9,043 funds would be subject to these proposed amendments.⁵³⁶ Information provided to the Commission in connection with staff examinations or investigations is kept confidential subject to the provisions of applicable law. If information collected pursuant to rule 22c-1 is reviewed by the Commission's examination staff, it is accorded the same level of confidentiality accorded to

⁵³⁵ See proposed rule 22c-1(b).

⁵³⁶ As of Dec. 2021, we estimate 9,043 open-end funds, excluding money market funds and ETFs.

other responses provided to the Commission in the context of its examination and oversight program.

The most recent PRA submission estimated that 5 fund complexes had funds that might adopt swing pricing policies and procedures under the optional rule.⁵³⁷ The current estimated hour burdens and time costs associated with rule 22c-1, including the burden associated with the requirements that funds adopt policies and procedures and obtain board approval of them, provide periodic written reports by the swing pricing administrator to the board, and retain certain records and written reports related to swing pricing, are an average aggregate annual burden of 113 hours and average aggregate time costs of \$73,803.⁵³⁸

The table below summarizes our PRA initial and ongoing annual burden estimates associated with the proposed amendments to rule 22c-1. The following estimates of average burden hours and costs are made solely for purposes of the Paperwork Reduction Act.

Table 9: Rule 22c-1 PRA Estimates

	Initial internal burden hours	Internal annual burden hours ¹		Wage rate ²	Internal time costs	Annual external cost burden
	12 hours	5 hours ³	x	\$409 ⁴	\$2,045	\$1,000 ⁵
Swing Pricing Policies and Procedures	3 hours	1 hour		\$3,313 ⁶	\$3,313	\$0

⁵³⁷ The most recent rule 22c-1 PRA submission was approved in 2020 (OMB Control No. 3235-0734). We continue to believe that funds within the same fund complex would experience certain efficiencies in responding to the collection of information requirements and, depending on the size of the fund complex, per fund costs may be higher or lower than our estimated averages; however, we are changing from a fund complex to a per fund estimate based on staff experience with per fund burdens and to improve the quality of this estimate.

⁵³⁸ The estimated burden hours include 280 total hours (or 56 hours per fund complex) to initially prepare and approve swing pricing policies and procedures, amortized over 3 years, and 20 total hours (or 4 hours per fund complex) to retain swing pricing records under rule 22c-1 each year.

Swing Pricing Board Reporting	2 hours		\$400 ⁷	\$800	\$531 ⁸
Swing Pricing Recordkeeping	1 hour	x	\$86 ⁹	\$86	\$0
Total new annual burden per fund	9 hours			\$6,244	\$1,531
Number of funds	× 9,043 funds ¹⁰			× 9,043 funds ¹⁰	× 9,043 funds ¹⁰
Total new annual burden	81,387 hours			\$56,464,492	\$13,844,833
TOTAL ESTIMATED BURDENS, INCLUDING AMENDMENTS					
Current burden estimates	113 hours			\$73,803	
Revised burden estimates	81,387 hours			\$56,464,492	\$13,844,833

Notes:

1. Includes initial burden estimates annualized over a 3-year period.
2. See *supra* Table 8, at note 2.
3. We estimate that each fund would spend 1 hour each year, on average, to update its swing pricing policies and procedures.
4. The \$409 wage rate reflects current estimates of the blended hourly rate for a senior accountant (\$237) and a chief compliance officer (\$580).
5. We estimate that the average cost of external services is \$1,000 per fund. The Commission's estimates of the relevant wage rates for external time costs, such as outside legal services, take into account staff experience, a variety of sources including general information websites, and adjustments for inflation.
6. This blended rate is based on the following estimates: 2 hours of time for a board of directors at an average cost per hour of \$4,770 and 1 hour of time for a compliance attorney to prepare materials for the board's review at an average cost per hour of \$400. This estimated cost for a board of directors assumes an average of 9 board members and has been adjusted for inflation.
7. Reflects an estimated wage rate of \$400 per hour for a compliance attorney.
8. This estimated burden is based on the estimated wage rate of \$531/hour, for 1 hour, for outside legal services. The Commission's estimates of the relevant wage rates for external time costs, such as outside legal services, take into account staff experience, a variety of sources including general information websites, and adjustments for inflation.
9. The \$86 wage rate reflects current estimates of the blended hourly rate for a senior computer operator (\$104) and a general clerk (\$68).
10. Includes open-end funds, excluding money market funds and ETFs, as reported on Form N-CEN as of Dec. 2021. The internal and external burdens in the table represent per fund estimates. The most recent rule 22c-1 PRA submission approved in 2019 (OMB Control No. 3235-0734) used fund complex estimates. We continue to believe, however, that funds within the same fund complex would experience certain efficiencies in responding to the collection of information requirements and, depending on the size of the fund complex, per fund costs may be higher or lower than our estimated averages.

D. Form N-PORT

Form N-PORT requires registered management investment companies (except for money market funds and small business investment companies) and ETFs that are organized as unit investment trusts to report portfolio holdings information in a structured, XML format. The form is filed electronically using the Commission's electronic filing system, EDGAR. We propose the following amendments to Form N-PORT:

- The proposed amendments to Form N-PORT would require filing Form N-PORT on a monthly basis, within 30 days after the end of each month. Currently, a fund must maintain in its records the information that is required to be included on Form N-PORT not later than 30 days after the end of each month, but is only required to file that information within 60 days after the end of every third month. We are not proposing to adjust the estimated collection of information burden in connection with this change, in part because we believe the reduced recordkeeping burden is commensurate with the increased burden associated with filing the information that previously would have been preserved as a record. The Commission similarly did not adjust the PRA burden estimate when it amended Form N-PORT to move from a requirement to file reports monthly to a requirement to prepare the information monthly but file it quarterly.⁵³⁹
- We are proposing to require each open-end fund (other than money market funds and in-kind ETFs) to report the aggregate percentage of its portfolio represented in each of the three proposed liquidity categories, which would be publicly available. These funds would be required to adjust the reported amounts to account for the amounts of margin or collateral posted in connection with certain derivatives transactions as well as outstanding liabilities, and to report information about the value of these adjustments. Currently, these funds are required to report position-level liquidity information on a non-public section of Form N-PORT, meaning the amendments would require aggregating that information, making the required adjustments, and

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See 2018 Liquidity Disclosure Adopting Release, *supra* note 22, at section IV.B.

reporting the adjusted aggregate information as well as information about the adjustments that were made.

- For open-end funds that would be subject to the swing pricing requirement under the proposal, we are proposing to provide enhanced transparency into the frequency and amount of each fund's swing pricing adjustments. Specifically, the proposal would require these funds to report information about the number of days a fund applied a swing factor during the month and the amount of each swing factor applied.
- We also propose conforming amendments to certain existing items to account for other aspects of the proposal, including amendments to the filing frequency of unstructured portfolio information on Part F of Form N-PORT and miscellaneous holdings disclosure to account for the proposal to make monthly Form N-PORT information available to the public, amendments to reflect the proposed amendments to rule 22e-4, and amendments to certain entity identifiers.

The respondents to these collections of information will be management investment companies (other than money market funds and small business investment companies) and ETFs that are organized as unit investment trusts. We estimate that there are 12,153 such funds required to file on Form N-PORT, although certain of the proposed new collections of information would apply to subsets of these funds, as reflected in the below table.⁵⁴⁰ The proposed collections of information are mandatory for the identified types of funds. Certain information reported on the form is kept confidential, and we propose that this would continue to be the case.⁵⁴¹ We propose that all other responses to Form N-PORT reporting requirements

⁵⁴⁰ The most recent Form N-PORT PRA submission was approved in 2022 (OMB Control No. 3235-0730). That PRA submission estimated that 11,980 funds were required to file on Form N-PORT. Our current estimate has increased due to changes in the numbers of funds.

⁵⁴¹ See General Instruction F of Form N-PORT; General Instruction F of proposed Form N-PORT.

would not be kept confidential, and instead would be made public 60 days after the end of the month to which they relate (30 days after they are filed); currently, only the report for every third month is made public. The proposed amendments are designed to assist the Commission in its regulatory, disclosure review, inspection, and policymaking roles, and to help investors and other market participants better assess different fund products.

In our most recent PRA submission for Form N-PORT, we estimated the annual aggregate compliance burden to comply with the current collection of information requirements in Form N-PORT is 1,839,903 burden hours with an internal cost burden of \$654,658,288 and an external cost burden estimate of \$113,858,133. We estimate that funds prepare and file their reports on Form N-PORT either by (1) licensing a software solution and preparing and filing the reports in house, or (2) retaining a service provider to provide data aggregation, validation, and/or filing services as part of the preparation and filing of reports on behalf of the fund. We estimate that 35% of funds subject to the N-PORT filing requirements will license a software solution and file reports on Form N-PORT in house, and the remaining 65% will retain a service provider to file reports on behalf of the fund.

Table 10 below summarizes our initial and ongoing annual burden estimates associated with the proposed amendments to Form N-PORT. The following estimates of average burden hours and costs are made solely for purposes of the Paperwork Reduction Act.

Table 10: Form N-PORT PRA Estimates

	Initial internal burden hours	Internal annual burden hours ¹		Wage rate ²	Internal time costs	Annual external cost burden
PROPOSED AMENDMENTS TO FORM N-PORT						
Aggregate Liquidity Classification Reporting						
Funds that license a software solution to prepare Form N-PORT	3 hours	2 hours ³	x	\$381 ⁴	\$762	\$250 ⁵
Number of funds		× 4,021 funds ⁶			× 4,021 funds ⁶	× 4,021 funds ⁶

Funds that retain the services of a third-party vendor to prepare Form N-PORT	3 hours	2 hours ³		\$381 ⁵	\$762	\$286 ⁷
Number of funds		× 7,467 funds ⁶			× 7,467 funds ⁶	× 7,467 funds ⁶
Subtotal: Aggregate Liquidity Classification		22,976 hours			\$8,753,856	\$3,140,819
Swing Pricing Reporting						
Funds that license a software solution to prepare Form N-PORT	9 hours	4 hours	x	\$381 ⁵	\$1,524	\$250 ⁶
Number of funds		× 3,165 funds ⁸			× 3,165 funds ⁸	× 3,165 funds ⁸
Funds that retain the services of a third-party vendor to prepare Form N-PORT	9 hours	4 hours	x	\$381 ⁵	\$1,524	\$286 ⁷
Number of funds		× 5,878 funds ⁸			× 5,878 funds ⁸	× 5,878 funds ⁸
Subtotal: Swing Pricing Reporting		36,172 hours			\$13,781,532	\$2,472,356
Other Proposed Amendments to Form N-PORT						
Funds that license a software solution to prepare Form N-PORT		1 hours	x	\$381 ⁵	\$381	
Number of funds		× 4,254 funds ⁹			× 4,254 funds ⁹	
Funds that retain the services of a third-party vendor to prepare Form N-PORT		1 hours	x	\$381 ⁵	\$381	
Number of funds		× 7,899 funds ⁹			× 7,899 funds ⁹	
Subtotal: Other Proposed Amendments		12,153 hours			\$4,630,293	
Total estimated burdens for proposed amendments						
Total new annual burden		71,301 hours			\$27,165,681	\$5,613,175
TOTAL ESTIMATED BURDENS, INCLUDING AMENDMENTS						
Current burden estimates		1,848,326 hours				\$108,457,536
Revised burden estimates		1,919,627 hours				\$114,070,711

Certain products and sums do not tie due to rounding.

Notes:

1. Includes initial burden estimates annualized over a 3-year period.

2. See *supra* Table 8, at note 2.

3. Reflects estimated initial internal burden of 3 hours, annualized over 3 years, as well as an estimated ongoing annual internal burden of 1 hour.

4. The \$381 wage rate reflects current estimates of the blended hourly rate for a senior programmer (\$362) and a compliance attorney (\$400).

5. Represents additional licensing fees that may be incurred as a result of required new functionality.

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6. Based on Commission filings, we estimate that there are 11,488 open-end funds that would be required to report aggregate liquidity classification information. We estimate that 35% of these funds (or 4,021) would license a software solution to prepare Form N-PORT while 65% (7,467) would rely on a third-party vendor.
7. Represents an assumed 2.5% increase in the current \$11,440 external cost associated with the proposed collection of information (5% in aggregate for liquidity classification and swing pricing reporting).
8. Based on Commission filings, we estimate that there are 9,043 open-end funds that would be required to report swing pricing information. We estimate that 35% of these funds (or 3,165) would license a software solution to prepare Form N-PORT while 65% (5,878) would rely on a third-party vendor.
9. Based on Commission filings, we estimate that there are 12,153 funds that file reports on Form N-PORT. We estimate that 35% of these funds (or 4,254) would license a software solution to prepare Form N-PORT while 65% (7,899) would rely on a third-party vendor.
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E. Form N-1A

Form N-1A is used by registered open-end management investment companies (except insurance company separate accounts and small business investment companies licensed under the United States Small Business Administration), to register under the Investment Company Act and to offer their shares under the Securities Act. Unlike many other Federal information collections, which are primarily for the use and benefit of the collecting agency, this information collection is primarily for the use and benefit of investors. The information filed with the Commission also permits the verification of compliance with securities law requirements and assures the public availability and dissemination of the information. In our most recent Paperwork Reduction Act submission for Form N-1A, we estimated for Form N-1A a total annual aggregate ongoing hour burden of 1,672,077 hours, and the total annual aggregate external cost burden is \$132,940,008.⁵⁴² Compliance with the disclosure requirements of Form N-1A is mandatory, and the responses to the disclosure requirements will not be kept confidential.

We propose to amend Item 11(a) of Form N-1A to require, if applicable, that funds disclose that if an investor places an order with a financial intermediary, the financial intermediary may require the investor to submit its order earlier to receive the next calculated NAV. In addition, as a result of the proposed amendments to rule 22c-1 to require that certain funds use swing pricing, we estimate that additional funds would be required to disclose

⁵⁴² The most recent Form N-1A PRA submission was approved in 2021 (OMB Control No. 3235-0307).

information about swing pricing in response to certain existing items in the form.⁵⁴³ The Commission previously estimated that 474 funds would choose to use swing pricing under the optional framework.⁵⁴⁴ We now estimate that 9,043 funds would be required to use swing pricing and to disclose relevant information on Form N-1A.⁵⁴⁵ We also propose to remove the requirement to provide an upper limit on the swing factor from Item 6(d).

Table 11 below summarizes our initial and ongoing annual burden estimates associated with the proposed amendments to Form N-1A. The following estimates of average burden hours and costs are made solely for purposes of the Paperwork Reduction Act.

Table 11: Form N-1A PRA Estimates

	Initial internal burden hours	Internal annual burden hours ¹		Wage rate ²	Internal time costs	Annual external cost burden
Hard Close						
Disclosure of Information Related to Hard Close	3 hours	1.5 hours ³	x	\$381 ⁴	\$572	
Number of funds		× 9,043 funds			× 9,043 funds	× 9,043 funds
Subtotal: Hard Close		13,565 hours			\$5,168,075	\$0
Swing Pricing Reporting						
Swing Pricing Disclosure	2 hours	1.67 hours ⁵	x	\$381 ⁴	\$635	
Number of funds		× 8,569 funds ⁶			× 8,569 funds ⁶	× 8,569 funds ⁶
Subtotal: Swing Pricing		14,282 hours			\$5,441,315	\$0
Total estimated burdens for proposed amendments						
Total new annual burden		27,846 hours			\$10,609,390	
TOTAL ESTIMATED BURDENS, INCLUDING AMENDMENTS						
Current burden estimates		1,672,102 hours				\$132,940,008
Revised burden estimates		1,699,948 hours				\$132,940,008

Certain products and sums do not tie due to rounding.

Notes:

1. Includes initial burden estimates annualized over a 3-year period.

2. See *supra* Table 8, at note 2.

⁵⁴³ See Items 6(d), 4(b)(2)(ii), 4(b)(2)(iv)(E), and 13(a) of Form N-1A.

⁵⁴⁴ See Swing Pricing Adopting Release, *supra* note 11, at n.544 and accompanying text.

⁵⁴⁵ This estimate, which is as of Dec. 2021, is based on Form N-CEN filings received through May 2022.

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3. Reflects estimated initial internal burden of 3 hours, annualized over 3 years, as well as an estimated ongoing annual internal burden of 0.5 hours.
 4. Reflects current estimates of the blended hourly rate of a compliance attorney and a senior programmer.
 5. Reflects estimated initial internal burden of 2 hours, annualized over 3 years, as well as an estimated ongoing annual internal burden of 1 hour.
 6. Reflects the number of registered open-end funds (other than money market funds and ETFs) minus 474 funds. While all registered open-end funds (other than money market funds and ETFs) would be required to provide the swing pricing disclosure, the Commission previously estimated that 474 funds would opt to provide optional swing pricing disclosure on Form N-1A and has already accounted for the filing burden of such funds in its PRA estimates for Form N-1A. See Swing Pricing Adopting Release, *supra* note 9, at Section VI.
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F. Form N-CEN

Form N-CEN requires registered investment companies, other than face-amount certificate companies to report annual, census-type information. Filers must submit this report electronically using the Commission's EDGAR system in XML format. We propose the following amendments to Form N-CEN:

- Adding a requirement that an open-end fund that uses a liquidity service provider report: (a) the name each liquidity service provider; (b) identifying information, including the legal entity identifier and location, for each liquidity service provider; (c) if the liquidity service provider is affiliated with the fund or its investment adviser; (d) the asset classes for which that liquidity service provider provided classifications; and (e) whether the service provider was hired or terminated during the reporting period;
- Removing requirements that a filer report certain information regarding its use of swing pricing; and
- Revising the approach to certain entity identifiers.⁵⁴⁶

The respondents to these collections of information will be registered investment companies with the exception of face amount certificate companies. We estimate that there are

⁵⁴⁶ We do not believe that the proposed amendments to separate the concepts of LEI and RSSD ID more clearly in the form would change the burdens of the current form, as the form already requires a fund to report the RSSD ID, if any, if a financial institution does not have an assigned LEI.

2,754 such registrants required to file on Form N-CEN.⁵⁴⁷ The proposed collections of information are mandatory. Responses are not kept confidential. The purpose of Form N-CEN is to satisfy the filing and disclosure requirements of section 30 of the Investment Company Act, and of rule 30a-1 thereunder. The proposed amendments are designed to facilitate the Commission's oversight of registered funds and its ability to assess trends and risks.

In our most recent PRA submission for Form N-CEN, we estimated the annual aggregate compliance burden to comply with the current collection of information requirements in Form N-CEN is 54,890 burden hours with an internal cost burden of \$19,267,461 and an external cost burden estimate of \$1,344,981.⁵⁴⁸

Table 12 below summarizes our initial and ongoing annual burden estimates associated with the proposed amendments to Form N-CEN. The following estimates of average burden hours and costs are made solely for purposes of the Paperwork Reduction Act.

Table 12: Form N-CEN PRA Estimates

	Initial internal burden hours	Internal annual burden hours ¹		Wage rate ²	Internal time costs	Annual external cost burden
Liquidity Service Provider Reporting	1.5 hours	1 hour ³	x	\$381 ⁴	\$381	
Number of registrants		x 2,754 registrants			x 2,754 registrants	
Subtotal: Liquidity Service Provider Reporting		2,754 hours			\$1,049,274	
Removal of Swing Pricing Reporting		(0.5) hours ⁵	x	\$351 ⁵	\$(175.5)	
Number of funds		x 9,854 funds ⁵			x 9,854 funds ⁵	
Subtotal: Removal of		(4,927 hours)			\$(1,729,377)	

⁵⁴⁷ This estimate, which is as of Dec. 2021, is based on Form N-CEN filings received through May 2022.

⁵⁴⁸ The most recent Form N-CEN PRA submission was approved in 2021 (OMB Control No. 3235-0729). The previous PRA submission estimated that 2,835 registrants were required to file on Form N-CEN. Our current estimate has decreased due to changes in the numbers of registrants.

Swing Pricing Reporting		
Total new annual burden	(2,173 hours)	(\$680,103)
TOTAL ESTIMATED BURDENS, INCLUDING AMENDMENTS		
Current burden estimates	54,890 hours	\$1,344,981
Revised burden estimates	52,718 hours	\$1,344,981
Notes: 1. Includes initial burden estimates annualized over a 3-year period. 2. See <i>supra</i> Table 8, at note 2. 3. Reflects an initial burden of 1.5 hours, annualized over a 3-year period, with an estimated ongoing annual burden of 0.5 hours. 4. The \$381 wage rate reflects current estimates of the blended hourly rate for 15 minutes each from a senior programmer (\$362) and a compliance attorney (\$400). 5. In the most recent PRA submission for Form N-CEN, we estimated that 9,854 funds would incur an additional burden of 0.5 hours per fund at an internal cost of \$351 per hour to report use of swing pricing. The estimated reduced burden on Form N-CEN differs from the increased burden we are estimating for Form N-PORT due to the differing requirements. In addition, because it is reversing a previously estimated increase, the estimated reduced burden on Form N-CEN uses the same estimated wage rate as the previous estimate, even though we estimate that wage rates have increased.		

G. Request for Comment

We request comment on whether these estimates are reasonable. Pursuant to 44 U.S.C. 3506(c)(2)(B), the Commission solicits comments in order to: (1) evaluate whether the proposed collection of information is necessary for the proper performance of the functions of the Commission, including whether the information will have practical utility; (2) evaluate the accuracy of the Commission's estimate of the burden of the proposed collection of information; (3) determine whether there are ways to enhance the quality, utility, and clarity of the information to be collected; and (4) determine whether there are ways to minimize the burden of the collection of information on those who are to respond, including through the use of automated collection techniques or other forms of information technology.

Persons wishing to submit comments on the collection of information requirements of the proposed amendments should direct them to the OMB Desk Officer for the Securities and Exchange Commission, MBX.OMB.OIRA.SEC_desk_officer@omb.eop.gov, and should send a copy to Vanessa A. Countryman, Secretary, Securities and Exchange Commission, 100 F Street

NE, Washington, DC 20549-1090, with reference to File No. S7-26-22. OMB is required to make a decision concerning the collections of information between 30 and 60 days after publication of this release; therefore a comment to OMB is best assured of having its full effect if OMB receives it within 30 days after publication of this release. Requests for materials submitted to OMB by the Commission with regard to these collections of information should be in writing, refer to File No. S7-26-22, and be submitted to the Securities and Exchange Commission, Office of FOIA Services, 100 F Street NE, Washington, DC 20549-2736.

V. INITIAL REGULATORY FLEXIBILITY ANALYSIS

The Commission has prepared the following Initial Regulatory Flexibility Analysis (“IRFA”) in accordance with section 3(a) of the Regulatory Flexibility Act (“RFA”).⁵⁴⁹ It relates to: (1) the proposed amendments concerning funds’ liquidity risk management programs under rule 22e-4; (2) the proposed swing pricing amendments under rule 22c-1(b); (3) the proposed hard close requirement under rule 22c-1(a); and (4) the proposed disclosure amendments to Form N-1A, Form N-PORT, and Form N-CEN.

A. Reasons for and Objectives of the Proposed Actions

The Commission is proposing amendments to its current rules for open-end funds regarding liquidity risk management programs and swing pricing. The proposed amendments would provide additional standards for making liquidity determinations, amend certain aspects of the liquidity categories, and require more frequent liquidity classifications. The objectives of the proposed liquidity amendments are to improve liquidity risk management programs to better prepare these funds for stressed conditions and improve transparency in liquidity classifications. The proposed amendments also require any open-end fund, other than a money market fund or

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5 U.S.C. 603(a).

exchange-traded fund, to use swing pricing. The objectives of swing pricing are to more fairly allocate costs, reduce the potential for dilution of investors who are not currently transacting in the fund's shares, and reduce any potential first-mover advantages. In addition, the Commission is proposing a "hard close" requirement for these funds. The proposed hard close amendments would serve multiple objectives, including facilitating funds' ability to operationalize swing pricing by ensuring that funds receive timely flow information and to modernize order processing generally. Finally, the Commission is proposing amendments to reporting requirements that apply to certain registered investment companies, including registered open-end funds (other than money market funds), registered closed-end funds, and unit investment trusts. These proposed amendments seek to improve fund disclosure by requiring more timely reporting of monthly portfolio holdings and related information to the Commission and the public, amend certain reported identifiers, and make other amendments to require additional information about open-end funds' liquidity risk management and use of swing pricing. Each of these objectives is discussed in detail in section II above.

B. Legal Basis

The Commission is proposing the rule and form amendments contained in this document under the authority set forth in the Investment Company Act, particularly sections 6, 8, 22, 24, 30, 31, 34, 38, and 45 thereof [15 U.S.C. 80a-1 *et seq.*], the Investment Advisers Act, particularly section 206 thereof [15 U.S.C. 80b-1 *et seq.*], the Exchange Act, particularly sections 10, 13, 15, 23, and 35A thereof [15 U.S.C. 78a *et seq.*], the Securities Act, particularly sections 7, 10, 17, and 19 thereof [15 U.S.C. 77a *et seq.*], and the Trust Indenture Act, particularly section 319 thereof [15 U.S.C. 77aaa *et seq.*].

C. Small Entities Subject to the Amendments

An investment company is a small entity if, together with other investment companies in the same group of related investment companies, it has net assets of \$50 million or less as of the end of its most recent fiscal year.⁵⁵⁰ Commission staff estimates that, as of June 2022, there were 46 open-end management investment companies that would be considered small entities; this number includes 2 money market funds and 11 open-end ETFs. Commission staff also estimates that, as of June 2022, there were 31 closed-end investment management companies and 5 unit investment trusts that would be considered small entities.

D. Projected Reporting, Recordkeeping, and Other Compliance Requirements

1. Liquidity Risk Management Programs

The proposed amendments to rule 22e-4 would provide additional standards for making liquidity determinations, amend certain aspects of the liquidity categories, and require more frequent liquidity classifications. Specifically, the proposal would provide objective minimum standards that funds would use to classify investments, including by: (1) requiring funds to assume the sale of a stressed trade size, rather than the rule's current approach of assuming the sale of a reasonably anticipated trade size in current market conditions; (2) defining the value impact standard with more specificity on when a sale or disposition would significantly change the market value of an investment; and (3) removing classification by asset class. The proposed amendments would also remove the less liquid investment category, which would reduce the number of liquidity categories from four to three, and expand the scope of the illiquid investment category. In addition, the proposed amendments would extend the requirement to maintain a highly liquid investment minimum to a broader scope of funds and would change how the highly liquid investment minimum calculation and the calculation of the 15% limit on illiquid

⁵⁵⁰ See 17 CFR 270.0-10(a).

investments take into account the amount of assets that are posted as margin or collateral for certain derivatives transactions. Finally, the proposal would require daily classifications.

We estimate that approximately 44 funds are small entities that would be required to comply with the proposed amendments to the liquidity risk management program requirement.⁵⁵¹ The proposed amendments would impose burdens on all open-end funds subjected to the rule, including those that are small entities. We discuss the specifics of these burdens in the Economic Analysis and Paperwork Reduction Act sections above. These sections also discuss the professional skills that we believe compliance with this aspect of the proposal would require. While we would expect larger funds or funds that are part of a large fund complex to incur higher costs related to the proposed liquidity rule amendments in absolute terms relative to a smaller fund or a fund that is part of a smaller fund complex, we would expect a smaller fund to find it more costly, per dollar managed, to comply with the proposed requirements because it would not be able to benefit from a larger fund complex's economies of scale. For example, larger fund complexes would have economies of scale in amending existing liquidity risk management policies and procedures and in revising their frameworks for classifying the liquidity of investments.

2. Swing Pricing

Under the proposal, every open-end fund other than an excluded fund would be required to establish and implement swing pricing policies and procedures that adjust the fund's current NAV per share by a swing factor either if the fund has net redemptions or if it has net purchases

⁵⁵¹ See text following *supra* note 550. Money market funds are excluded from the proposed liquidity risk management program requirement. In addition, in-kind ETFs are not subject to the current rule's classification requirements or highly liquid investment minimum requirements and, therefore, would not be subject to the proposed amendments to these provisions. Because in-kind ETFs are subject to certain of the proposed amendments, such as amendments to the calculation of the 15% limit on illiquid investments, we include all 11 of the small funds that are open-end ETFs in the estimated number of small entities affected.

of more than 2% of the fund's net assets. The swing pricing administrator would be required to review investor flow information to determine: (1) if the fund experiences net purchases or net redemptions; and (2) the amount of net purchases or net redemptions. In determining the swing factor, the proposed rule would require a fund's swing pricing administrator to make good faith estimates, supported by data, of the costs the fund would incur if it purchased or sold a pro rata amount of each investment in its portfolio to satisfy the amount of net purchases or net redemptions (*i.e.*, a vertical slice). Additionally, under the proposed rule, the fund's board of directors would be required to: (1) approve the fund's swing pricing policies and procedures; (2) designate the fund's swing pricing administrator; and (3) review, no less frequently than annually, a written report prepared by the swing pricing administrator. Finally, under the proposed rule the fund would be required to maintain the swing pricing policies and procedures and a copy of the written report in an easily accessible place.

We estimate that approximately 33 funds are small entities that would be required to comply with the proposed swing pricing requirement.⁵⁵² The proposed requirement would impose burdens on all open-end funds (other than money market funds and ETFs), including those that are small entities. We discuss the specifics of these burdens in the Economic Analysis and Paperwork Reduction Act sections above. These sections also discuss the professional skills that we believe compliance with this aspect of the proposal would require. While we would expect larger funds or funds that are part of a large fund complex to incur higher costs related to the proposed swing pricing requirement in absolute terms relative to a smaller fund or a fund that is part of a smaller fund complex, we would expect a smaller fund to find it more costly, per dollar managed, to comply with the proposed requirement because it would not be able to benefit

⁵⁵² See text following *supra* note 550. ETFs and money market funds are excluded from the proposed swing pricing requirement.

from a larger fund complex's economies of scale. For example, a larger fund complex would have economies of scale in developing and adopting swing pricing policies and procedures. This is particularly true for larger fund complexes that currently employ swing pricing in their operations in a foreign jurisdiction, such as in Europe.

3. Hard Close

We are proposing amendments to rule 22c-1 to require a hard close for funds that are subject to the proposed swing pricing requirement. The hard close would provide that a request to redeem or purchase a fund's shares may be executed at the current day's price only if the fund, its designated transfer agent, or a registered securities clearing agency receives the eligible order before the pricing time as of which the fund calculates its NAV. Orders received after the fund's established pricing time would receive the next day's price.

We estimate that approximately 33 funds are small entities that would be required to comply with the proposed hard close requirement.⁵⁵³ The proposed amendments would impose burdens on all open-end funds (except for money market funds and ETFs), including those that are small entities. We discuss the specifics of these burdens in the Economic Analysis section above. The proposed hard close may involve costs to change business practices, operations, and computer systems, including integration of new technologies, for funds, including small entities, which may require specialized operational and technology skills. We would expect that the burdens of these changes would be greater for smaller entities relative to the size of their business than for larger entities, which would benefit from economies of scale.

⁵⁵³ See text following *supra* note 550. ETFs and money market funds are excluded from the proposed hard close requirement.

We estimate that the proposed hard close would also affect 8 small transfer agents.⁵⁵⁴ Intermediaries that are small entities would also be affected; however, we lack data for accurately estimating the number of these other intermediaries that are small entities that service open-end fund shareholders and would be affected by the proposed hard close amendments. Those other intermediaries may include a subset of: 471 small advisers,⁵⁵⁵ 731 small broker-dealers,⁵⁵⁶ 1,280 small recordkeepers,⁵⁵⁷ 3,529 small bank entities,⁵⁵⁸ and small insurance

⁵⁵⁴ A “small transfer agent” is a transfer agent that: (1) received less than 500 items for transfer and less than 500 items for processing during the preceding six months (or in the time that it has been in business, if shorter); (2) transferred items only of issuers that would be deemed small businesses or small organizations; and (3) maintained master shareholder files that in the aggregate contained less than 1,000 shareholder accounts or was the named transfer agent for less than 1,000 shareholder accounts at all times during the preceding fiscal year (or in the time that it has been in business, if shorter); and (4) is not affiliated with any person (other than a natural person) that is not a small business or small organization. *See* rule 0-10(h) under the Exchange Act. We estimate 8 affected small transfer agents, based on the number of small transfer agents reporting mutual fund activity in their filings on Form TA-2 as of Mar. 31, 2022.

⁵⁵⁵ A “small adviser” is a SEC-registered investment adviser that: (1) has assets under management having a total value of less than \$25 million; (2) did not have total assets of \$5 million or more on the last day of the most recent fiscal year; and (3) does not control, is not controlled by, and is not under common control with another investment adviser that has assets under management of \$25 million or more, or any person (other than a natural person) that had total assets of \$5 million or more on the last day of its most recent fiscal year. We estimate 471 small advisers, based on filings on Form ADV as of Dec. 2021.

⁵⁵⁶ A “small broker-dealer” is a broker or dealer that: (1) had total capital (net worth plus subordinated liabilities) of less than \$500,000 on the date in the prior fiscal year as of which its audited financial statements were prepared pursuant to rule 17a-5(d) under the Exchange Act or, if not required to file such statements, a broker or dealer that had total capital (net worth plus subordinated liabilities) of less than \$500,000 on the last business day of the preceding fiscal year (or in the time that it has been in business, if shorter); and (2) is not affiliated with any person (other than a natural person) that is not a small business or small organization. *See* rule 0-10(c) under the Exchange Act. We estimate 731 small broker-dealers, based on filings of FOCUS Reports as of Dec. 2021.

⁵⁵⁷ *See* Pension Benefit Statements—Lifetime Income Illustrations [85 FR 59132 (Sept. 18, 2020)], at n.71 and accompanying text. We estimate 1,280 small recordkeepers, based on filings of Form 5500 as reported by the Department of Labor, in the 2017 plan year. According to that data, there were 1,725 recordkeepers servicing defined contribution plans. The 445 largest recordkeepers serviced plans holding approximately 99% of total plan assets, while the remaining 1,280 (small recordkeepers) serviced plans holding a mere 1%. The Department of Labor considered other thresholds for recordkeepers and selected the 99 percent threshold for recordkeepers to include more recordkeepers in cost estimates, and thus avoid underestimating costs.

⁵⁵⁸ *See* Rules Regarding Availability of Information [85 FR 57616 (Sept. 15, 2020)], at n.7 and

companies.⁵⁵⁹ Furthermore, how much these proposed amendments would affect these intermediaries would be determined largely by the importance these intermediaries and their clients place on receiving the NAV calculated on the day a client places an order.

4. Reporting Requirements

a. Form N-1A

Form N-1A is the form used by certain open-end management investment companies to register under the Investment Company Act and to register their securities under the Securities Act. We propose to amend Item 11(a) of Form N-1A to require, if applicable, that funds disclose that if an investor places an order with a financial intermediary, the financial intermediary may require the investor to submit its order earlier to receive the next calculated NAV. We also propose to remove the requirement to provide an upper limit on the swing factor from Item 6(d).

We estimate that approximately 33 funds are small entities that would be required to comply with our proposed amendments for Form N-1A.⁵⁶⁰ The proposed amendments would impose burdens on all open-end funds (other than money market funds and ETFs), including those that are small entities. We discuss the specifics of these burdens in the Economic Analysis and Paperwork Reduction Act sections above. These sections also discuss the professional skills that we believe compliance with this aspect of the proposal would require. We recognize that, due to economies of scale, the costs associated with the proposed amendments to Form N-1A

accompanying text (stating that as of Mar. 2020, there were approximately 2,925 small bank holding companies, 132 small savings and loan holding companies, and 472 small State member banks). We estimate a total of 3,529 small banks supervised by the Federal Reserve as of Mar. 2020.

⁵⁵⁹ We lack data for estimating the number of small insurance companies.

⁵⁶⁰ See text following *supra* note 550. ETFs and money market funds file reports on Form N-1A but would not be impacted by our proposed amendments.

may be more easily borne by larger fund complexes than smaller ones, and that costs borne by funds would be passed along to investors in the form of higher fees and expenses.

b. Form N-PORT

Form N-PORT requires open-end and closed-end funds, as well as ETFs organized as UITs, to report monthly portfolio holdings information on a quarterly basis in a structured, XML format. We propose the following amendments to Form N-PORT: (1) require funds to file Form N-PORT on a monthly basis, within 30 days after the end of each month; (2) require open-end funds to report the aggregate percentage of a fund's portfolio represented in each of the three proposed liquidity categories, which would be publicly available; (3) provide enhanced transparency into the frequency and amount of a fund's swing pricing adjustments; and (4) changes to entity identifiers.

We estimate that approximately 75 open-end and closed-end funds are small entities that would be required to comply with our proposed amendments for Form N-PORT.⁵⁶¹ The proposed amendments would impose burdens on all Form N-PORT filers, including those that are small entities. We discuss the specifics of these burdens in the Economic Analysis and Paperwork Reduction Act sections above. These sections also discuss the professional skills that we believe compliance with this aspect of the proposal would require. We recognize that, due to economies of scale, the costs associated with the proposed amendments to Form N-PORT may be more easily borne by larger fund complexes than smaller ones, and that costs borne by funds would be passed along to investors in the form of higher fees and expenses.

⁵⁶¹ See text following *supra* note 550. Money market funds do not file Form N-PORT. While exchange-traded funds organized as unit investment trusts file Form N-PORT, there are no such funds that would be considered small entities.

c. Form N-CEN

Form N-CEN is used to collect annual, census-type information for all registered investment companies, other than face-amount certificate companies. Filers must submit this report electronically using the Commission's EDGAR system in XML format. We propose amendments to Form N-CEN that would identify liquidity service providers and certain related information, as well as remove the requirements that a filer report information regarding its use of swing pricing, which is being moved to Form N-PORT. We also propose amendments related to entity identifiers.

We estimate that approximately 82 funds are small entities that would be required to comply with our proposed amendments for Form N-CEN.⁵⁶² The proposed amendments would impose burdens on all Form N-CEN filers, including those that are small entities. We discuss the specifics of these burdens in the Economic Analysis and Paperwork Reduction Act sections above. These sections also discuss the professional skills that we believe compliance with this aspect of the proposal would require. We recognize that, due to economies of scale, the costs associated with the proposed amendments to Form N-CEN may be more easily borne by larger fund complexes than smaller ones, and that costs borne by funds would be passed along to investors in the form of higher fees and expenses.

E. Duplicative, Overlapping, or Conflicting Federal Rules

We do not believe that the proposed amendments would duplicate, overlap, or conflict with other existing Federal rules.

⁵⁶² See text following *supra* note 550. In-kind ETFs would not be affected by the proposed amendments to report information about liquidity classification vendors but, to avoid under-estimating the number of small entities, we assume that the 11 small entity ETFs are not in-kind ETFs and would be affected by the change. We similarly assume that all 44 funds that are small entities would use a liquidity classification vendor, although this may not be the case. If a fund does not use a liquidity classification vendor, it would not be required to report information about a vendor on Form N-CEN.

F. Significant Alternatives

The RFA directs the Commission to consider significant alternatives that would accomplish our stated objectives, while minimizing any significant economic impact on small entities. We considered the following alternatives for small entities in relation to the proposed amendments to rules 22e-4 and 22c-1, as well as the proposed disclosure and reporting requirements: (1) establishing different requirements that take into account the resources available to small entities; (2) exempting small entities from all or part of the requirements; (3) clarifying, consolidating, or simplifying requirements under the rules for small entities; and (4) using performance rather than design standards.

We do not believe that establishing different requirements for, or exempting, any subset of funds, including funds that are small entities, from the proposed amendments to rule 22e-4 would permit us to achieve our stated objectives. As discussed above, we believe that the proposed liquidity amendments would improve liquidity risk management programs to better prepare funds for stressed conditions and improve transparency in liquidity classifications. Small funds do not entail less liquidity risk than larger funds, and investors in small funds would benefit from improvements in the liquidity risk management programs and more transparent liquidity classifications just as investors in larger funds would. We therefore do not believe it would be appropriate to establish different requirements for, or exempt, funds that are small entities from the proposed liquidity risk management amendments to rule 22e-4. Similarly, our objectives would not be served by clarifying, consolidating, or simplifying the liquidity requirements for small entities. With respect to using performance rather than design standards, the proposed amendments primarily use design rather than performance standards to better

prepare funds for stressed market conditions, prevent funds from over-estimating the liquidity of their investments, and improve transparency of fund liquidity.

Regarding the proposed changes to the liquidity classification framework, we acknowledge that to the extent that small funds would experience a more substantial operational burden compared to larger fund complexes that exhibit economies of scale, smaller funds may become less competitive than larger funds. However, we believe there are no significant alternatives for smaller funds other than exemption, and providing an exemption from the proposed liquidity classification changes could subject investors in small funds to greater liquidity risk and would create diverging liquidity frameworks among funds, as small funds are already subject to the current rule's liquidity classification requirements.

Additionally, we are not establishing different requirements for, or exempting, funds that are small entities from the swing pricing requirement, because we believe that all funds should be required to use swing pricing as a tool to mitigate potential shareholder dilution. We do not believe that the potential dilution that proposed rule 22c-1(b) is meant to prevent would affect large funds and their shareholders more significantly than small funds and their shareholders. We acknowledge that a fund that is a small entity would need to incur the costs of compliance with the proposed amendments to the rule, which may constitute a greater percentage of the small fund's net assets than with a larger fund. We also acknowledge that certain larger fund groups with both U.S. and European operations may already have experience with swing pricing that smaller funds would not, which could result in greater costs, relative to a fund's net assets, for smaller funds than larger ones. However, despite these considerations, we do not believe that investors in small funds should be afforded less protection against the risk of dilution than investors in large funds.

We therefore do not believe it would be appropriate to establish different requirements for, or to exempt, funds that are small entities from the proposed swing pricing requirement. For example, we are not allowing funds that are small entities to use a different inflow swing threshold or market impact threshold than those the proposed rule identifies. As discussed above, we do not believe the potential dilution that the proposed swing pricing requirement is meant to prevent would affect large funds and their shareholders more significantly than small funds and their shareholders. Permitting funds that are small entities to use higher thresholds could subject small funds to greater dilution than larger funds, and we believe all investors should be afforded the same protection against the risk of dilution.⁵⁶³ Similarly, our objectives would not be served by clarifying, consolidating, or simplifying the swing pricing requirements for small entities. With respect to using performance rather than design standards, the proposed amendments primarily use design rather than performance standards to promote more consistent and uniform standards for all funds. We are also not establishing different requirements for, or exempting, funds that are small entities from the proposed hard close requirement because we believe the requirement is important to every fund's ability to operationalize swing pricing. Our hard close proposal is designed to support the proposed swing pricing amendments by facilitating the more timely receipt of fund order flow information. We believe that requiring a hard close would reduce a fund's reliance on estimates, providing more accurate swing factor determinations. We do not believe investors in smaller funds would benefit from a greater use of estimates than investors in larger funds. We therefore do not believe it would be appropriate to establish different requirements for, or exempt, funds that are small entities from the proposed hard close

⁵⁶³ While we recognize that smaller funds may be less likely than larger funds to have market impact costs at the 1% threshold for net redemptions or the 2% threshold for net purchases, as discussed above, we believe uniform thresholds for all funds would provide a consistent and objective threshold for all funds to consider market impacts.

requirement in rule 22c-1. Similarly, our objectives would not be served by clarifying, consolidating, or simplifying the hard close requirement for small entities. With respect to using performance rather than design standards, the proposed amendments primarily use design rather than performance standards to promote more consistent and uniform standards for all funds.

Finally, we do not believe that the interest of investors would be served by establishing different requirements for, or exempting, funds that are small entities from the proposed disclosure and reporting amendments, or subjecting these funds to different disclosure and reporting requirements than larger funds. We believe that all fund investors, including investors in funds that are small entities, would benefit from disclosure and reporting requirements that would permit them to make investment choices that better match their risk tolerances.

Furthermore, we note that the current disclosure requirements on Form N-1A, Form N-PORT, and Form N-CEN do not distinguish between small entities and other funds. Similarly, our objectives would not be served by clarifying, consolidating or simplifying the proposed disclosure and reporting requirements for small entities. With respect to using performance rather than design standards, the proposed amendments primarily use design rather than performance standards to promote more consistent and uniform standards for all funds.

We recognize that, due to economies of scale, the costs associated with the proposed amendments to these forms may be more easily borne by larger fund complexes than smaller ones, and that costs borne by funds would be passed along to investors in the form of higher fees and expenses. However, we believe there are no significant alternatives for smaller funds other than exemption, and providing exemptions for smaller funds from the proposed reporting and disclosure requirements would disadvantage investors in smaller funds by creating a lack of information about these funds' use of swing pricing or aggregate liquidity classifications.

G. General Request for Comment

The Commission requests comments regarding this IRFA. We request comments on the number of small entities that may be affected by our proposed amendments, including for the affected small intermediaries that we lack data to quantify with accuracy, and whether the proposed amendments would have any effects not considered in this analysis. We request that commenters describe the nature of any effects on small entities subject to the rules and forms, and provide empirical data to support the nature and extent of such effects. We also request comment on the proposed compliance burdens and the effect these burdens would have on smaller entities.

VI. CONSIDERATION OF IMPACT ON THE ECONOMY

For purposes of the Small Business Regulatory Enforcement Fairness Act of 1996, or “SBREFA,”⁵⁶⁴ we must advise OMB whether a proposed regulation constitutes a “major” rule. Under SBREFA, a rule is considered “major” where, if adopted, it results in or is likely to result in (1) an annual effect on the economy of \$100 million or more; (2) a major increase in costs or prices for consumers or individual industries; or (3) significant adverse effects on competition, investment or innovation.

We request comment on whether the proposal would be a “major rule” for purposes of SBREFA. We request comment on the potential impact of the proposed rule on the economy on an annual basis; any potential increase in costs or prices for consumers or individual industries; and any potential effect on competition, investment, or innovation. Commenters are requested to provide empirical data and other factual support for their views to the extent possible.

⁵⁶⁴ Public Law 104-121, Title II, 110 Stat. 857 (1996) (codified in various sections of 5 U.S.C., 15 U.S.C. and as a note to 5 U.S.C. 601).

STATUTORY AUTHORITY

The Commission is proposing the rule and form amendments contained in this document under the authority set forth in the Investment Company Act, particularly sections 6, 8, 22, 24, 30, 31, 34, 38, and 45 thereof [15 U.S.C. 80a-1 *et seq.*], the Investment Advisers Act, particularly section 206 thereof [15 U.S.C. 80b-1 *et seq.*], the Exchange Act, particularly sections 10, 13, 15, 23, and 35A thereof [15 U.S.C. 78a *et seq.*], the Securities Act, particularly sections 7, 10, 17, and 19 thereof [15 U.S.C. 77a *et seq.*], the Trust Indenture Act, particularly section 319 thereof [15 U.S.C. 77aaa *et seq.*], and 44 U.S.C. 3506-3507.

List of Subjects in 17 CFR Parts 270 and 274

Investment companies, Reporting and recordkeeping requirements, Securities.

Text of Proposed Rules and Rule and Form Amendments

For the reasons set forth in the preamble, the Commission is proposing to amend title 17, chapter II of the Code of Federal Regulations as follows:

PART 270 - RULES AND REGULATIONS, INVESTMENT COMPANY ACT OF 1940

1. The authority citation for part 270 continues to read, in part, as follows:

Authority: 15 U.S.C. 80a-1 *et seq.*, 80a-34(d), 80a-37, 80a-39, and Pub. L. 111-203, sec. 939A, 124 Stat. 1376 (2010), unless otherwise noted.

* * * * *

Section 270.22c-1 also issued under secs. 6(c), 22(c), and 38(a) (15 U.S.C. 80a-6(c), 80a-22(c), and 80a-37(a));

* * * * *

Section 270.31a-2 is also issued under 15 U.S.C. 80a-30.

2. Amend § 270.22c-1 by revising it to read as follows:

§ 270.22c-1 Pricing of redeemable securities for distribution, redemption and repurchase.

(a) *Forward pricing required.* No registered investment company issuing any redeemable security, no person designated in such issuer's prospectus as authorized to consummate transactions in any such security, no principal underwriter of, or dealer in, any such security shall sell, redeem, or repurchase any such security except at a price based on the current net asset value of such security established for the next pricing time after receipt of a direction to purchase or redeem such security.

(1) The investment company's board of directors must initially set the pricing time(s), and must make and approve any changes to the pricing time(s).

(2) The investment company must calculate the current net asset value of any redeemable security at least once daily, Monday through Friday, at the pricing time(s) its board of directors set, except on:

(i) Days during which the investment company receives no direction to purchase or redeem its redeemable securities; or

(ii) Customary national business holidays described or listed in the prospectus and local and regional business holidays listed in the prospectus.

(3) For an investment company that is required to implement swing pricing under paragraph (b) of this section:

(i) A direction to purchase or redeem the investment company's redeemable securities is eligible to receive the price established for a pricing time solely if the investment company, its designated transfer agent, or a registered clearing agency receives an eligible order before that pricing time; and

(ii) The price an eligible order receives is based on the current net asset value as of the pricing time and includes any adjustment to the current net asset value required by paragraph (b) of this section.

(b) *Swing pricing requirement.* A registered open-end management investment company (but not a registered open-end management investment company that is regulated as a money market fund under § 270.2a-7 or an exchange-traded fund as defined in paragraph (d) of this section) (a “fund”) must establish and implement swing pricing policies and procedures as described in paragraphs (b)(1) through (5) of this section in order to adjust its current net asset value per share to mitigate dilution of the value of its outstanding redeemable securities as a result of shareholder purchase or redemption activity.

(1) The fund’s swing pricing policies and procedures must:

(i) Provide that the fund must adjust its net asset value per share by a swing factor if the fund has net redemptions or if the fund has net purchases exceeding its inflow swing threshold. The swing pricing administrator must review investor flow information to determine if the fund has net purchases or net redemptions and the amount of net purchases or net redemptions. The swing pricing administrator is permitted to make such determination based on reasonable, high confidence estimates; and

(ii) Specify the process for determining the swing factor, in accordance with paragraph (b)(2) of this section.

(2) In determining the swing factor, the swing pricing administrator must make good faith estimates, supported by data, of the costs the fund would incur if it purchased or sold a pro rata amount of each investment in its portfolio equal to the amount of net purchases or net redemptions.

(i) If the fund has net redemptions, the good faith estimates must include, for selling the pro rata amount of each investment in the fund's portfolio:

(A) Spread costs;

(B) Brokerage commissions, custody fees, and any other charges, fees, and taxes associated with portfolio investment sales; and

(C) If the amount of the fund's net redemptions exceeds the market impact threshold, the market impact, as described in paragraph (b)(2)(iii) of this section.

(ii) If the amount of the fund's net purchases exceeds the inflow swing threshold, the good faith estimates must include, for purchasing the pro rata amount of each investment in the fund's portfolio:

(A) Spread costs;

(B) Brokerage commissions, custody fees, and any other charges, fees, and taxes associated with portfolio investment purchases; and

(C) The market impact, as described in paragraph (b)(2)(iii) of this section.

(iii) A fund must determine market impact by:

(A) Establishing a market impact factor for each investment, which is an estimate of the percentage change in the value of the investment if it were purchased or sold, per dollar of the amount of the investment that would be purchased or sold; and

(B) Multiplying the market impact factor for each investment by the dollar amount of the investment that would be purchased or sold if the fund purchased or sold a pro rata amount of each investment in its portfolio to invest the net purchases or meet the net redemptions.

(iv) The swing pricing administrator may estimate costs and market impact factors for each type of investment with the same or substantially similar characteristics and apply those estimates to all investments of that type rather than analyze each investment separately.

(3) The fund's board of directors, including a majority of directors who are not interested persons of the fund, must:

(i) Approve the fund's swing pricing policies and procedures;

(ii) Designate the fund's swing pricing administrator. The administration of swing pricing must be reasonably segregated from portfolio management of the fund and may not include portfolio managers; and

(iii) Review, no less frequently than annually, a written report prepared by the swing pricing administrator that describes:

(A) The swing pricing administrator's review of the adequacy of the fund's swing pricing policies and procedures and the effectiveness of their implementation, including their effectiveness at mitigating dilution;

(B) Any material changes to the fund's swing pricing policies and procedures since the date of the last report; and

(C) The swing pricing administrator's review and assessment of the fund's swing factors, considering the requirements of paragraph (b)(2) of this section, including the information and data supporting the determination of the swing factors and, if the swing pricing administrator implements either an inflow swing threshold lower than 2 percent of the fund's net assets or a market impact threshold lower than 1 percent of the fund's net assets, the information and data supporting the determination of such threshold.

(4) The fund must maintain the policies and procedures adopted by the fund under this paragraph (b) that are in effect, or at any time within the past six years were in effect, in an easily accessible place, and must maintain a written copy of the report provided to the board under paragraph (b)(3)(iii) of this section for six years, the first two in an easily accessible place.

(5) Any fund (a “feeder fund”) that invests, pursuant to section 12(d)(1)(E) of the Act (15 U.S.C. 80a-12(d)(1)(E)), in another fund (a “master fund”) may not use swing pricing to adjust the feeder fund’s net asset value per share; however, a master fund must use swing pricing to adjust the master fund’s net asset value per share, pursuant to the requirements set forth in this paragraph (b).

(6) Notwithstanding section 18(f)(1) of the Act (15 U.S.C. 80a-18(f)(1)), a fund with a share class that is an exchange-traded fund is subject to the swing pricing requirement only with respect to any share classes that are not exchange-traded funds.

(c) *Exceptions permitted.* Notwithstanding paragraph (a) of this section:

(1) Secondary market transactions. A sponsor of a unit investment trust (“trust”) engaged exclusively in the business of investing in eligible trust securities (as defined in § 270.14a-3(b)) may sell or repurchase trust units in a secondary market at a price based on the offering side evaluation of the eligible trust securities in the trust’s portfolio, determined at any time on the last business day of each week, effective for all sales made during the following week, if on the days that such sales or repurchases are made the sponsor receives a letter from a qualified evaluator stating, in its opinion, that:

(i) In the case of repurchases, the current bid price is not higher than the offering side evaluation, computed on the last business day of the previous week; and

(ii) In the case of resales, the offering side evaluation, computed as of the last business day of the previous week, is not more than one-half of one percent (\$5.00 on a unit representing \$1,000 principal amount of eligible trust securities) greater than the current offering price.

(2) Notwithstanding the provisions above, any registered separate account offering variable annuity contracts, any person designated in such account's prospectus as authorized to consummate transactions in such contracts, and any principal underwriter of or dealer in such contracts must be permitted to apply the initial purchase payment for any such contract at a price based on the current net asset value of such contract which is next computed:

(i) Not later than two business days after receipt of the direction to purchase by the insurance company sponsoring the separate account (“insurer”), if the contract application and other information necessary for processing the direction to purchase (collectively, “application”) are complete upon receipt; or

(ii) Not later than two business days after an application which is incomplete upon receipt by the insurer is made complete, provided that, if an incomplete application is not made complete within five business days after receipt,

(A) The prospective purchaser is informed of the reasons for the delay; and

(B) The initial purchase payment is returned immediately and in full, unless the prospective purchaser specifically consents to the insurer retaining the purchase payment until the application is made complete.

(3) This paragraph does not prevent any registered investment company from adjusting the price of its redeemable securities sold pursuant to a merger, consolidation or purchase of substantially all of the assets of a company that meets the conditions specified in § 270.17a-8.

(d) *Definitions.* For the purposes of this section:

Designated transfer agent means a registered transfer agent (as defined in section 3(a)(25) of the Securities Exchange Act of 1934 (15 U.S.C. 78c(a)(25))) that is designated in the fund's registration statement filed with the Commission.

Eligible order means a direction, which is irrevocable as of the next pricing time after receipt, to:

(i) Purchase or redeem a specific number of fund shares or an indeterminate number of fund shares of a specific value; or

(ii) Purchase the fund's shares using the proceeds of a contemporaneous order to redeem a specific number of shares of another registered investment company (an exchange).

Exchange-traded fund means an open-end management investment company (or series or class thereof), the shares of which are listed and traded on a national securities exchange, and that has formed and operates under an exemptive order under the Act granted by the Commission or in reliance on § 270.6c-11.

Inflow swing threshold means an amount of net purchases equal to 2 percent of a fund's net assets, or such smaller amount of net purchases as the swing pricing administrator determines is appropriate to mitigate dilution.

Initial purchase payment means the first purchase payment submitted to the insurer by, or on behalf of, a prospective purchaser.

Investor flow information means information about the fund investors' daily purchase and redemption activity, which may consist of individual, aggregated, or netted eligible orders, and which excludes any purchases or redemptions that are made in kind and not in cash.

Market impact threshold means an amount of net redemptions equal to 1 percent of a fund's net assets, or such smaller amount of net redemptions as the swing pricing administrator determines is appropriate to mitigate dilution.

Pricing time means the time or times of day as of which the investment company calculates the current net asset value of its redeemable securities pursuant to paragraph (a) of this section.

Prospective purchaser means either an individual contract owner or an individual participant in a group contract.

Qualified evaluator means any evaluator that represents it is in a position to determine, on the basis of an informal evaluation of the eligible trust securities held in a unit investment trust's portfolio, whether:

(i) The current bid price is higher than the offering side evaluation, computed on the last business day of the previous week; and

(ii) The offering side evaluation, computed as of the last business day of the previous week, is more than one-half of one percent (\$5.00 on a unit representing \$1,000 principal amount of eligible trust securities) greater than the current offering price.

Swing factor means the amount, expressed as a percentage of the fund's net asset value and determined pursuant to the fund's swing pricing policies and procedures, by which a fund adjusts its net asset value per share.

Swing pricing means the process of adjusting a fund's current net asset value per share to mitigate dilution of the value of its outstanding redeemable securities as a result of shareholder purchase and redemption activity, pursuant to the requirements set forth in paragraph (b) of this section.

Swing pricing administrator means the fund’s investment adviser, officer, or officers responsible for administering the swing pricing policies and procedures. The swing pricing administrator may consist of a group of persons.

3. Amend § 270.22e-4 by:

- a. Removing paragraphs (a)(3) and (10);
- b. Removing the designations for paragraphs (a)(1) and (2) and (a)(4) through (14) and placing in alphabetical order;
- c. Adding, in alphabetical order, a definition for “Convertible to U.S. dollars”;
- d. Revising the definitions for “Exchange-traded fund”, “Highly liquid investment”, “Illiquid investment”, “In-Kind Exchange Traded Fund or In-Kind ETF”, “Liquidity risk”, “Moderately liquid investment”, and “Person(s) designated to administer the program”;
- e. Adding, in alphabetical order, a definition for “Significantly changing the market value of an investment”; and
- f. Revising paragraphs (b)(1)(i)(C), (b)(1)(ii) and (iii), (b)(1)(iv) introductory text, and (b)(3)(iii).

The revisions read as follows:

§ 270.22e-4 Liquidity risk management programs.

(a) * * *

Convertible to U.S. dollars means the ability to be sold or disposed of, with the sale or disposition settled in U.S. dollars.

Exchange-traded fund or *ETF* means an open-end management investment company (or series or class thereof), the shares of which are listed and traded on a national securities

exchange, and that has formed and operates under an exemptive order under the Act granted by the Commission or in reliance on § 270.6c-11.

* * * * *

Highly liquid investment means any U.S. dollars held by a fund and any investment that the fund reasonably expects to be convertible to U.S. dollars in current market conditions in three business days or less without significantly changing the market value of the investment, as determined pursuant to the provisions of paragraph (b)(1)(ii) of this section.

* * * * *

Illiquid investment means any investment that the fund reasonably expects not to be convertible to U.S. dollars in current market conditions in seven calendar days or less without significantly changing the market value of the investment, as determined pursuant to the provisions of paragraph (b)(1)(ii) of this section. Any investment whose fair value is measured using an unobservable input that is significant to the overall measurement is an illiquid investment.

In-Kind Exchange Traded Fund or *In-Kind ETF* means an ETF that meets redemptions through in-kind transfers of securities, positions, and assets other than a *de minimis* amount of U.S. dollars and that publishes its portfolio holdings daily.

Liquidity risk means the risk that the fund could not meet requests to redeem shares issued by the fund without significant dilution of remaining investors' interests in the fund.

Moderately liquid investment means any investment that is neither a highly liquid investment nor an illiquid investment.

Person(s) designated to administer the program means the fund or In-Kind ETF's investment adviser, officer, or officers (which may not be solely portfolio managers of the fund

or In-Kind ETF) responsible for administering the program and its policies and procedures pursuant to paragraph (b)(2)(ii) of this section.

Significantly changing the market value of an investment means:

(i) For shares listed on a national securities exchange or a foreign exchange, any sale or disposition of more than 20% of the average daily trading volume of those shares, as measured over the preceding 20 business days.

(ii) For any other investment, any sale or disposition that the fund reasonably expects would result in a decrease in sale price of more than 1%.

* * * * *

(b) * * *

(1) * * *

(i) * * *

(C) Holdings of U.S. dollars and cash equivalents, as well as borrowing arrangements and other funding sources; and

* * * * *

(ii) *Classification.* Each fund must, using information obtained after reasonable inquiry and taking into account relevant market, trading, and investment-specific considerations, classify daily each of the fund's portfolio investments (including each of the fund's derivatives transactions) as a highly liquid investment, moderately liquid investment, or illiquid investment. To determine the liquidity classification of each investment, the fund must:

(A) Measure the number of days in which the investment is reasonably expected to be convertible to U.S. dollars without significantly changing the market value of the investment, and include the day on which the liquidity classification is made in that measurement; and

(B) Assume the sale of 10% of the fund's net assets by reducing each investment by 10%.

(iii) *Highly liquid investment minimum.* A fund must determine and maintain a highly liquid investment minimum that is equal to or higher than 10% of the fund's net assets.

(A) When determining a highly liquid investment minimum, a fund must consider the factors specified in paragraphs (b)(1)(i)(A) through (D) of this section, as applicable (but considering those factors specified in paragraphs (b)(1)(i)(A) and (B) only as they apply during normal conditions, and during stressed conditions only to the extent they are reasonably foreseeable during the period until the next review of the highly liquid investment minimum).

(B) For purposes of determining compliance with its highly liquid investment minimum, the fund must reduce the value of its highly liquid investments that are assets otherwise eligible to meet the fund's highly liquid investment minimum by an amount equal to:

(I) The value of any highly liquid investments that are assets posted as margin or collateral in connection with any derivatives transaction that the fund has classified as a moderately liquid investment or illiquid investment; and

Note 1 to paragraph (b)(1)(iii)(B)(I): A fund that has posted highly liquid investments and non-highly liquid investments as margin or collateral in connection with derivatives transactions classified as moderately liquid or illiquid investments first should apply posted assets that are highly liquid investments in connection with these transactions, unless it has specifically identified non-highly liquid investments as margin or collateral in connection with such derivatives transactions.

(2) Any fund liabilities.

(C) The highly liquid investment minimum determined pursuant to paragraph (b)(1)(iii) of this section may not be changed during any period of time that a fund's assets that are highly

liquid investments are below the determined minimum without approval from the fund's board of directors, including a majority of directors who are not interested persons of the fund;

(D) A fund must periodically review, no less frequently than annually, the highly liquid investment minimum; and

(E) A fund must adopt and implement policies and procedures for responding to a shortfall of the fund's highly liquid investments below its highly liquid investment minimum, which must include requiring the person(s) designated to administer the program to report to the fund's board of directors no later than its next regularly scheduled meeting with a brief explanation of the causes of the shortfall, the extent of the shortfall, and any actions taken in response, and if the shortfall lasts more than 7 consecutive calendar days, must include requiring the person(s) designated to administer the program to report to the board within one business day thereafter with an explanation of how the fund plans to restore its minimum within a reasonable period of time.

(iv) *Illiquid investments.* No fund or In-Kind ETF may acquire any illiquid investment if, immediately after the acquisition, the fund or In-Kind ETF would have invested more than 15% of its net assets in illiquid investments that are assets. In determining its compliance with this paragraph, in addition to the value of a fund's illiquid investments that are assets, where a fund has posted margin or collateral in connection with a derivatives transaction that is classified as an illiquid investment, the fund also must include as illiquid investments that are assets the value of margin or collateral posted in connection with the derivatives transaction that the fund would receive if it exited the transaction. If a fund or In-Kind ETF holds more than 15% of its net assets in illiquid investments that are assets:

* * * * *

(3) * * *

(iii) If applicable, a written record of the policies and procedures related to how the highly liquid investment minimum, and any adjustments thereto, were determined, including assessment of the factors incorporated in paragraph (b)(1)(iii)(A) of this section and any materials provided to the board pursuant to paragraph (b)(1)(iii)(E) of this section, for a period of not less than five years (the first two years in an easily accessible place) following the determination of, and each change to, the highly liquid investment minimum.

* * * * *

4. Amend § 270.30b1-9 by revising it to read as follows:

§ 270.30b1-9 Monthly report.

Each registered management investment company or exchange-traded fund organized as a unit investment trust, or series thereof, other than a registered open-end management investment company that is regulated as a money market fund under §270.2a-7 or a small business investment company registered on Form N-5 (§§239.24 and 274.5 of this chapter), must file a monthly report of portfolio holdings on Form N-PORT (§274.150 of this chapter), current as of the last business day, or last calendar day, of the month. A registered investment company that has filed a registration statement with the Commission registering an offering of its securities for the first time under the Securities Act of 1933 is relieved of this reporting obligation with respect to any reporting period or portion thereof prior to the date on which that registration statement becomes effective or is withdrawn. Reports on Form N-PORT must be filed with the Commission no later than 30 days after the end of each month.

5. Amend § 270.31a-2 by revising paragraph (a)(2) to read as follows:

§ 270.31a-2 Records to be preserved by registered investment companies, certain majority-owned subsidiaries thereof, and other persons having transactions with registered investment companies.

(a) * * *

(2) Preserve for a period not less than six years from the end of the fiscal year in which any transactions occurred, the first two years in an easily accessible place, all books and records required to be made pursuant to paragraphs (b)(5) through (12) of §270.31a-1 and all vouchers, memoranda, correspondence, checkbooks, bank statements, cancelled checks, cash reconciliations, cancelled stock certificates, and all schedules evidencing and supporting each computation of net asset value of the investment company shares, including schedules evidencing and supporting each computation of an adjustment to net asset value of the investment company shares based on swing pricing policies and procedures established and implemented pursuant to §270.22c-1(b), and other documents required to be maintained by §270.31a-1(a) and not enumerated in §270.31a-1(b).

* * * * *

PART 274 — FORMS PRESCRIBED UNDER THE INVESTMENT COMPANY ACT OF 1940

6. The general authority citation for part 274 continues to read as follows:

Authority: 15 U.S.C. 77f, 77g, 77h, 77j, 77s, 78c(b), 78l, 78m, 78n, 78o(d), 80a-8, 80a-24, 80a-26, 80a-29, and 80a-37, unless otherwise noted.

* * * * *

7. Amend Form N-1A (referenced in §§ 239.15A and 274.11A) by revising Item 6(d) and Item 11(a)(2). The revisions read as follows:

Note: The text of Form N-1A does not, and these amendments will not, appear in the *Code of Federal Regulations*.

FORM N-1A

* * * * *

Item 6. Purchase and Sale of Fund Shares

* * * * *

(d) If the Fund uses swing pricing, explain the Fund's use of swing pricing; including what swing pricing is, the circumstances under which the Fund will use it, and the effects of swing pricing on the Fund and investors. With respect to any portion of a Fund's assets that is invested in one or more open-end management investment companies that are registered under the Investment Company Act, the Fund shall include a statement that the Fund's net asset value is calculated based upon the net asset values of the registered open-end management companies in which the Fund invests, and, if applicable, state that the prospectuses for those companies explain the circumstances under which they will use swing pricing and the effects of using swing pricing.

* * * * *

Item 11. Shareholder Information

(a) * * *

(2) A statement as to when calculations of net asset value are made and that the price at which a purchase or redemption is effected is based on the next calculation of net asset value after the order is placed. If applicable, explain that if an investor places an order with a financial intermediary, the financial intermediary may require the investor to submit its order earlier to receive the next calculated net asset value.

* * * * *

8. Amend § 274.150(a) by revising it to read as follows:

§ 274.150 Form N-PORT, Monthly portfolios holdings report.

(a) Except as provided in paragraph (b) of this section, this form shall be used by registered management investment companies or exchange-traded funds organized as unit investment trusts, or series thereof, to file reports pursuant to §270.30b1-9 of this chapter not later than 30 days after the end of each month.

* * * * *

9. Amend Form N-PORT (referenced in § 274.150) by:

- a. Revising General Instructions A, E, and F and Items B.4, B.5, B.6, B.7, B.8, C.1, C.7, C.10, C.11, Part D, and Part F; and
- b. Adding Items B.11 and B.12.

The revisions and addition read as follows:

Note: The text of Form N-PORT does not, and these amendments will not, appear in the *Code of Federal Regulations*.

FORM N-PORT

* * * * *

GENERAL INSTRUCTIONS

A. Rule as to Use of Form N-PORT

Form N-PORT is the reporting form that is to be used for monthly reports of Funds other than money market funds and SBICs under section 30(b) of the Act, as required by rule 30b1-9 under the Act (17 CFR 270.30b1-9). Funds must report information about their portfolios and each of their portfolio holdings as of the last business day, or last calendar day, of each month. A registered investment company that has filed a registration statement with the Commission

registering its securities for the first time under the Securities Act of 1933 is relieved of this reporting obligation with respect to any reporting period or portion thereof prior to the date on which that registration statement becomes effective or is withdrawn.

Reports on Form N-PORT must disclose portfolio information as calculated by the fund for the reporting period's ending net asset value (commonly, and as permitted by rule 2a-4, the first business day following the trade date). Reports on Form N-PORT for each month must be filed with the Commission no later than 30 days after the end of such month. If the due date falls on a weekend or holiday, the filing deadline will be the next business day.

A Fund may file an amendment to a previously filed report at any time, including an amendment to correct a mistake or error in a previously filed report. A Fund that files an amendment to a previously filed report must provide information in response to all items of Form N-PORT, regardless of why the amendment is filed.

* * * * *

E. Definitions

References to sections and rules in this Form N-PORT are to the Act, unless otherwise indicated. Terms used in this Form N-PORT have the same meanings as in the Act or related rules (including rule 18f-4 solely for Items B.9 and 10 of the Form), unless otherwise indicated.

As used in this Form N-PORT, the terms set out below have the following meanings:

“Absolute VaR Test” has the meaning defined in rule 18f-4(a) [17 CFR 270.18f-4(a)].

“Class” means a class of shares issued by a Fund that has more than one class that represents interests in the same portfolio of securities under rule 18f-3 [17 CFR 270.18f-3] or under an order exempting the Fund from provisions of section 18 of the Act [15 U.S.C. 80a-18].

“Controlled Foreign Corporation” has the meaning provided in section 957 of the Internal Revenue Code [26 U.S.C. 957].

“Derivatives Exposure” has the meaning defined in rule 18f-4(a) [17 CFR 270.18f-4(a)].

“Designated Index” has the meaning defined in rule 18f-4(a) [17 CFR 270.18f-4(a)].

“Designated Reference Portfolio” has the meaning defined in rule 18f-4(a) [17 CFR 270.18f-4(a)]

“Exchange-Traded Fund” means an open-end management investment company (or Series or Class thereof) or unit investment trust (or series thereof), the shares of which are listed and traded on a national securities exchange at market prices, and that has formed and operates under an exemptive order under the Act granted by the Commission or in reliance on rule 6c-11 [17 CFR 270.6c-11].

“Fund” means the Registrant or a separate Series of the Registrant. When an item of Form N-PORT specifically applies to a Registrant or a Series, those terms will be used.

“Highly Liquid Investment Minimum” has the meaning defined in rule 22e-4 [17 CFR 270.22e-4].

“Illiquid Investment” has the meaning defined in rule 22e-4 [17 CFR 270.22e-4].

“ISIN” means, with respect to any security, the “international securities identification number” assigned by a national numbering agency, partner, or substitute agency that is coordinated by the Association of National Numbering Agencies.

“LEI” means, with respect to any company, the “legal entity identifier” as assigned by a utility endorsed by the Global LEI Regulatory Oversight Committee or accredited by the Global LEI Foundation.

“Multiple Class Fund” means a Fund that has more than one Class.

“Registrant” means a management investment company, or an Exchange-Traded Fund organized as a unit investment trust, registered under the Act.

“Relative VaR Test” has the meaning defined in rule 18f-4(a) [17 CFR 270.18f-4(a)].

“Restricted Security” has the meaning defined in rule 144(a)(3) under the Securities Act of 1933 [17 CFR 230.144(a)(3)].

“RSSD ID” means the identifier assigned by the National Information Center of the Board of Governors of the Federal Reserve System.

“Securities Portfolio” has the meaning defined in rule 18f-4(a) [17 CFR 270.18f-4(a)].

“Series” means shares offered by a Registrant that represent undivided interests in a portfolio of investments and that are preferred over all other series of shares for assets specifically allocated to that series in accordance with rule 18f-2(a) [17 CFR 270.18f-2(a)].

“Swap” means either a “security-based swap” or a “swap” as defined in sections 3(a)(68) and (69) of the Securities Exchange Act of 1934 [15 U.S.C. 78c(a)(68) and (69)] and any rules, regulations, or interpretations of the Commission with respect to such instruments.

“Swing Factor” has the meaning defined in rule 22c-1 [17 CFR 270.22c-1].

“Value-at-Risk” or VaR has the meaning defined in rule 18f-4(a) [17 CFR 270.18f-4(a)].

“VaR Ratio” means the value of the Fund’s portfolio VaR divided by the VaR of the Designated Reference Portfolio.

F. Public Availability

Information reported on Form N-PORT will be made publicly available 60 days after the end of the reporting period.

The SEC does not intend to make public the information reported on Form N-PORT with respect to a Fund’s Highly Liquid Investment Minimum (Item B.7), derivatives transactions

(Item B.8), Derivatives Exposure for limited derivatives users (Item B.9), median daily VaR (Item B.10.a), median VaR Ratio (Item B.10.b.iii), VaR backtesting results (Item B.10.c), country of risk and economic exposure (Item C.5.b), delta (Items C.9.f.v, C.11.c.vii, or C.11.g.iv), liquidity classification for individual portfolio investments (Item C.7), or miscellaneous securities (Part D), or explanatory notes related to any of those topics (Part E) that is identifiable to any particular fund or adviser. However, the SEC may use information reported on this Form in its regulatory programs, including examinations, investigations, and enforcement actions.

* * * * *

Item B.4. Securities Lending

a. * * *

iii. If the borrower does not have an LEI, provide the borrower's RSSD ID, if any.

iv. Aggregate value of all securities on loan to the borrower.

* * * * *

Item B.5. Return Information

a. Total return of the Fund during the reporting period. If the Fund is a Multiple Class Fund, report the return for each Class. Such return(s) shall be calculated in accordance with the methodologies outlined in Item 26(b)(1) of Form N-1A, Instruction 13 to sub-Item 1 of Item 4 of Form N-2, or Item 26(b)(i) of Form N-3, as applicable.

* * * * *

c. Net realized gain (loss) and net change in unrealized appreciation (or depreciation) attributable to derivatives for each of the following asset categories during the reporting period: commodity contracts, credit contracts, equity contracts, foreign exchange

contracts, interest rate contracts, and other contracts. Within each such asset category, further report the same information for each of the following types of derivatives instrument: forward, future, option, swaption, swap, warrant, and other. Report in U.S. dollars. Losses and depreciation shall be reported as negative numbers.

- d. Net realized gain (loss) and net change in unrealized appreciation (or depreciation) attributable to investments other than derivatives during the reporting period. Report in U.S. dollars. Losses and depreciation shall be reported as negative numbers.

Item B.6. Flow information. Provide the aggregate dollar amounts for sales and redemptions/repurchases of Fund shares during the reporting period. If shares of the Fund are held in omnibus accounts, for purposes of calculating the Fund's sales, redemptions, and repurchases, use net sales or redemptions/repurchases from such omnibus accounts. The amounts to be reported under this Item should be after any front-end sales load has been deducted and before any deferred or contingent deferred sales load or charge has been deducted. Shares sold shall include shares sold by the Fund to a registered unit investment trust. For mergers and other acquisitions, include in the value of shares sold any transaction in which the Fund acquired the assets of another investment company or of a personal holding company in exchange for its own shares. For liquidations, include in the value of shares redeemed any transaction in which the Fund liquidated all or part of its assets. Exchanges are defined as the redemption or repurchase of shares of one Fund or series and the investment of all or part of the proceeds in shares of another Fund or series in the same family of investment companies.

* * * * *

Item B.7. Highly Liquid Investment Minimum information.

* * * * *

- b. If applicable, provide the number of days that the eligible value of the Fund's holdings in highly liquid investments fell below the Fund's Highly Liquid Investment Minimum during the reporting period.

* * * * *

Item B.8. Derivatives Transactions. For portfolio investments of open-end management investment companies, provide:

- a. The value of the Fund's highly liquid investments that are assets that it has posted as margin or collateral in connection with derivatives transactions that are classified as moderately liquid investments or illiquid investments under rule 22e-4 [17 CFR 270.22e-4].
- b. The value of any margin or collateral posted in connection with any derivatives transaction that is classified as an illiquid investment under rule 22e-4 [17 CFR 270.22e-4] where the fund would receive the value of the margin or collateral if it exited the derivatives transaction.

* * * * *

Item B.11. Swing Factor

- a. Provide the number of times the Fund applied a Swing Factor during the reporting period.
- b. For each business day during the reporting period, provide the amount of any Swing Factor applied by the Fund. Indicate whether each Swing Factor applied is positive (reflecting net purchases) or negative (reflecting net redemptions) with the appropriate sign (+ or -). Report N/A for any business day on which the fund did not apply a Swing Factor.

Item B.12. Liquidity aggregate classification information. For portfolio investments of open-end management investment companies:

- a. Provide the aggregate percentage of investments that are assets (excluding any investments that are reflected as liabilities on the Fund's balance sheet) compared to total investments that are assets of the Fund for each of the following categories as specified in rule 22e-4:
 1. Highly Liquid Investments.
 2. Moderately Liquid Investments.
 3. Illiquid Investments.
- b. To calculate the aggregate percentages under Item B.12.a, reduce the amount of the Fund's assets that are classified as highly liquid investments by the amount reported under Item B.8.a and by the amount of the fund's liabilities. Increase the amount of the Fund's assets that are classified as illiquid investments by the amount reported under Item B.8.b. To the extent these adjustments result in the sum of the Fund's investments in each category not equaling 100% of the Fund's total investments that are assets, the Fund may adjust the percentage of investments attributed to the moderately liquid investment category so that the sum of the Fund's investments in each category equals 100% of the Fund's total investments that are assets.

Item C.1. Identification of investment.

* * * * *

- c. If the issuer does not have an LEI, provide the issuer's RSSD ID, if any.
- d. Title of the issue or description of the investment.
- e. CUSIP (if any).

- f. At least one of the following other identifiers:
 - i. ISIN.
 - ii. Ticker (if ISIN is not available).
 - iii. Other unique identifier (if ticker and ISIN are not available). Indicate the type of identifier used.

* * * * *

Item C.7. Liquidity classification information.

- a. For portfolio investments of open-end management investment companies, provide the liquidity classification(s) for each portfolio investment among the following categories as specified in rule 22e-4 [17 CFR 270.22e-4]. For portfolio investments with multiple liquidity classifications, indicate the percentage amount attributable to each classification.
 - i. Highly Liquid Investments
 - ii. Moderately Liquid Investments
 - iii. Illiquid Investments

* * * * *

Instructions to Item C.7. Funds may choose to indicate the percentage amount of a holding attributable to multiple classification categories only in the following circumstances: (1) if portions of the position have differing liquidity features that justify treating the portions separately; (2) if a fund has multiple sub-advisers with differing liquidity views; or (3) if the fund chooses to classify the position through evaluation of how long it would take to liquidate the entire position. In (1) and (2), a fund would classify by treating each portion of the position as a separate investment to arrive at an assumed sale size that is equal to 10% of the fund's net assets by reducing each investment by 10%.

* * * * *

Item C.10. For repurchase and reverse repurchase agreements, also provide:

* * * * *

b. * * *

iii. If the counterparty does not have an LEI, provide the counterparty's RSSD ID, if any.

* * * * *

Item C.11. For derivatives, also provide:

* * * * *

b. * * *

ii. If the counterparty does not have an LEI, provide the counterparty's RSSD ID, if any.

* * * * *

Part D: Miscellaneous Securities

Report miscellaneous securities, if any, using the same Item numbers and reporting the same information that would be reported for each investment in Part C if it were not a miscellaneous security. Information reported in this Item will be nonpublic.

* * * * *

Part F: Exhibits

Attach no later than 60 days after the end of the reporting period the Fund's complete portfolio holdings as of the close of the period covered by the report, except for reports covering the last month of the Fund's second and fourth fiscal quarters. These portfolio holdings must be presented in accordance with the schedules set forth in §§210.12-12 – 210.12-14 of Regulation S-X [17 CFR 210.12-12 – 210.12-14].

* * * * *

10. Amend Form N-CEN (referenced in § 274.101) by revising General Instruction E and Items B.16, B.17, C.5, C.6, C.9, C.10, C.11, C.12, C.13, C.14, C.15, C.16, C.17, C.21, D.12, D.13, D.14, E.2, F.1, F.2, F.4, and Instructions to Item G.1 to read as follows:

Note: The text of Form N-CEN does not, and these amendments will not, appear in the *Code of Federal Regulations*.

FORM N-CEN

* * * * *

GENERAL INSTRUCTIONS

* * * * *

E. Definitions

Except as defined below or where the context clearly indicates the contrary, terms used in Form N-CEN have meanings as defined in the Act and the rules and regulations thereunder. Unless otherwise indicated, all references in the form or its instructions to statutory sections or to rules are sections of the Act and the rules and regulations thereunder.

In addition, the following definitions apply:

“Class” means a class of shares issued by a Fund that has more than one class that represents interest in the same portfolio of securities under rule 18f-3 under the Act (17 CFR 270.18f-3) or under an order exempting the Fund from provisions of section 18 of the Act (15 U.S.C. 80a-18).

“CRD number” means a central licensing and registration system number issued by the Financial Industry Regulatory Authority.

“Exchange-Traded Fund” means an open-end management investment company (or Series or Class thereof) or unit investment trust (or series thereof), the shares of which are listed

and traded on a national securities exchange at market prices, and that has formed and operates under an exemptive order under the Act granted by the Commission or in reliance on rule 6c-11 under the Act (17 CFR 270.6c-11).

“Exchange-Traded Managed Fund” means an open-end management investment company (or Series or Class thereof) or unit investment trust (or series thereof), the shares of which are listed and traded on a national securities exchange at net asset value-based prices, and that has formed and operates under an exemptive order under the Act granted by the Commission or in reliance on an exemptive rule under the Act adopted by the Commission.

“Fund” means the Registrant or a separate Series of the Registrant. When an item of Form N-CEN specifically applies to a Registrant or Series, those terms will be used.

“LEI” means, with respect to any company, the “legal entity identifier” as assigned by a utility endorsed by the Global LEI Regulatory Oversight Committee or accredited by the Global LEI Foundation.

“Money Market Fund” means an open-end management investment company registered under the Act, or Series thereof, that is regulated as a money market fund pursuant to rule 2a-7 under the Act (17 CFR 270.2a-7).

“PCAOB number” means the registration number issued to an independent public accountant registered with the Public Company Accounting Oversight Board.

“Registrant” means the investment company filing this report or on whose behalf the report is filed.

“RSSD ID” means the identifier assigned by the National Information Center of the Board of Governors of the Federal Reserve System.

“SEC File number” means the number assigned to an entity by the Commission when that entity registered with the Commission in the capacity in which it is named in Form N-CEN.

“Series” means shares offered by a Registrant that represent undivided interests in a portfolio of investments and that are preferred over all other Series of shares for assets specifically allocated to that Series in accordance with rule 18f-2(a) (17 CFR 270.18f-2(a)).

* * * * *

Item B.16. Principal underwriters.

a. * * *

v. If no LEI is provided, RSSD ID, if any: ____

vi. State, if applicable: ____

vii. Foreign country, if applicable: ____

viii. Is the principal underwriter an affiliated person of the Registrant, or its investment adviser(s) or depositor? [Y/N]

* * * * *

Item B.17. Independent public accountant. Provide the following information about each independent public accountant:

* * * * *

d. If no LEI is provided, RSSD ID, if any: ____

e. State, if applicable: ____

f. Foreign country, if applicable: ____

g. Has the independent public accountant changed since the last filing? [Y/N]

* * * * *

Item C.5. Investments in certain foreign corporations.

* * * * *

b. * * *

iii. If no LEI is provided, RSSD ID, if any: ____

* * * * *

Item C.6. Securities lending.

* * * * *

c. * * *

iii. If no LEI is provided, RSSD ID, if any: ____

iv. Is the securities lending agent an affiliated person, or an affiliated person of an affiliated person, of the Fund? [Y/N]

v. Does the securities lending agent or any other entity indemnify the fund against borrower default on loans administered by this agent? [Y/N]

vi. If the entity providing the indemnification is not the securities lending agent, provide the following information:

1. Name of person providing indemnification: ____

2. LEI, if any, of person providing indemnification: ____

3. If no LEI is provided, RSSD ID, if any: ____

vii. Did the Fund exercise its indemnification rights during the reporting period? [Y/N]

d. * * *

iii. If no LEI is provided, RSSD ID, if any: ____

iv. Is the cash collateral manager an affiliated person, or an affiliated person of an affiliated person, of a securities lending agent retained by the Fund? [Y/N]

v. Is the cash collateral manager an affiliated person, or an affiliated person of an affiliated person, of the Fund? [Y/N]

* * * * *

Item C.9. Investment advisers.

a. * * *

v. If no LEI is provided, RSSD ID, if any: ____

vi. State, if applicable: ____

vii. Foreign country, if applicable: ____

viii. Was the investment adviser hired during the reporting period? [Y/N]

1. If the investment adviser was hired during the reporting period, indicate the investment adviser's start date: ____

b. * * *

v. If no LEI is provided, RSSD ID, if any: ____

vi. State, if applicable: ____

vii. Foreign country, if applicable: ____

viii. Termination date: ____

c. * * *

v. If no LEI is provided, RSSD ID, if any: ____

vi. State, if applicable: ____

vii. Foreign country, if applicable: ____

viii. Is the sub-adviser an affiliated person of the Fund's investment adviser(s)? [Y/N]

ix. Was the sub-adviser hired during the reporting period? [Y/N]

1. If the sub-adviser was hired during the reporting period, indicate the sub-adviser's start date: _____

d. * * *

v. If no LEI is provided, RSSD ID, if any: _____

vi. State, if applicable: _____

vii. Foreign country, if applicable: _____

viii. Termination date: _____

Item C.10. Transfer agents.

a. * * *

iv. If no LEI is provided, RSSD ID, if any: _____

v. State, if applicable: _____

vi. Foreign country, if applicable: _____

vii. Is the transfer agent an affiliated person of the Fund or its investment adviser(s)? [Y/N]

viii. Is the transfer agent a sub-transfer agent? [Y/N]

* * * * *

Item C.11. Pricing services

a. * * *

ii. LEI, if any, or RSSD ID, if any, or provide and describe other identifying number:

* * * * *

Item C.12. Custodians

a. * * *

iii. If no LEI is provided, RSSD ID, if any: _____

- iv. State, if applicable: _____
- v. Foreign country, if applicable: _____
- vi. Is the custodian an affiliated person of the Fund or its investment adviser(s)? [Y/N]
- vii. Is the custodian a sub-custodian? [Y/N]
- viii. With respect to the custodian, check below to indicate the type of custody:
 - 1. Bank — section 17(f)(1) (15 U.S.C. 80a-17(f)(1)): _____
 - 2. Member national securities exchange — rule 17f-1 (17 CFR 270.17f-1): _____
 - 3. Self — rule 17f-2 (17 CFR 270.17f-2): _____
 - 4. Securities depository — rule 17f-4 (17 CFR 270.17f-4): _____
 - 5. Foreign custodian — rule 17f-5 (17 CFR 270.17f-5): _____
 - 6. Futures commission merchants and commodity clearing organizations — rule 17f-6 (17 CFR 270.17f-6): _____
 - 7. Foreign securities depository — rule 17f-7 (17 CFR 270.17f-7): _____
 - 8. Insurance company sponsor — rule 26a-2 (17 CFR 270.26a-2): _____
 - 9. Other: _____. If other, describe: _____.

* * * * *

Item C.13. Shareholder servicing agents.

- a. * * *
- ii. LEI, if any, or RSSD ID, if any, or provide and describe other identifying number:

* * * * *

Item C.14. Administrators

- a. * * *

- ii. LEI, if any, or RSSD ID, if any, or provide and describe other identifying number:

* * * * *

Item C.15. Affiliated broker-dealers. Provide the following information about each affiliated broker-dealer:

* * * * *

- e. If no LEI is provided, RSSD ID, if any: ____
- f. State, if applicable: ____
- g. Foreign country, if applicable: ____
- h. Total commissions paid to the affiliated broker-dealer for the reporting period: ____

Item C.16. Brokers.

- a. * * *

- v. If no LEI is provided, RSSD ID, if any: ____
- vi. State, if applicable: ____
- vii. Foreign country, if applicable: ____
- viii. Gross commissions paid by the Fund for the reporting period: ____

* * * * *

Item C.17. Principal transactions.

- a. * * *

- v. If no LEI is provided, RSSD ID, if any: ____
- vi. State, if applicable: ____
- vii. Foreign country, if applicable: ____
- viii. Total value of purchases and sales (excluding maturing securities) with Fund: ____

* * * * *

Item C.21. Liquidity classification services. For open-end management investment companies subject to rule 22e-4 (17 CFR 270.22e-4), respond to the following:

- a. Provide the following information about each person that provided liquidity classification services to the Fund during the reporting period:
 - i. Full name: _____
 - ii. LEI, if any, or RSSD ID, if any, or provide and describe other identifying number:

 - iii. State, if applicable: _____
 - iv. Foreign country, if applicable: _____
 - v. Is the liquidity classification service an affiliated person of the Fund or its investment adviser(s)? [Y/N]
 - vi. Asset class(es) for which liquidity classification services were provided to the Fund:

- b. Was a liquidity classification service hired or terminated during the reporting period?
[Y/N]

* * * * *

Item D.12. Investment advisers (small business investment companies only).

- a. * * *
 - v. If no LEI is provided, RSSD ID, if any: _____
 - vi. State, if applicable: _____
 - vii. Foreign country, if applicable: _____
 - viii. Was the investment adviser hired during the reporting period? [Y/N]

1. If the investment adviser was hired during the reporting period, indicate the investment adviser's start date: _____

b. * * *

- v. If no LEI is provided, RSSD ID, if any: _____
- vi. State, if applicable: _____
- vii. Foreign country, if applicable: _____
- viii. Termination date: _____

c. * * *

- v. If no LEI is provided, RSSD ID, if any: _____
- vi. State, if applicable: _____
- vii. Foreign country, if applicable: _____
- viii. Is the sub-adviser an affiliated person of the Fund's investment adviser(s)? [Y/N]
- ix. Was the sub-adviser hired during the reporting period? [Y/N]

1. If the sub-adviser was hired during the reporting period, indicate the sub-adviser's start date: _____

d. * * *

- v. If no LEI is provided, RSSD ID, if any: _____
- vi. State, if applicable: _____
- vii. Foreign country, if applicable: _____
- viii. Termination date: _____

Item D.13. Transfer agents (small business investment companies only).

a. * * *

- iv. If no LEI is provided, RSSD ID, if any: _____

v. State, if applicable: _____

vi. Foreign country, if applicable: _____

vii. Is the transfer agent an affiliated person of the Fund or its investment adviser(s)?

[Y/N]

viii. Is the transfer agent a sub-transfer agent? [Y/N]

* * * * *

Item D.14. Custodians (small business investment companies only).

a. * * *

iii. If no LEI is provided, RSSD ID, if any: _____

iv. State, if applicable: _____

v. Foreign country, if applicable: _____

vi. Is the custodian an affiliated person of the Fund or its investment adviser(s)? [Y/N]

vii. Is the custodian a sub-custodian? [Y/N]

viii. With respect to the custodian, check below to indicate the type of custody:

1. Bank — section 17(f)(1) (15 U.S.C. 80a-17(f)(1)): _____

2. Member national securities exchange — rule 17f-1 (17 CFR 270.17f-1): _____

3. Self — rule 17f-2 (17 CFR 270.17f-2): _____

4. Securities depository — rule 17f-4 (17 CFR 270.17f-4): _____

5. Foreign custodian — rule 17f-5 (17 CFR 270.17f-5): _____

6. Futures commission merchants and commodity clearing organizations — rule
17f-6 (17 CFR 270.17f-6): _____

7. Foreign securities depository — rule 17f-7 (17 CFR 270.17f-7): _____

8. Insurance company sponsor — rule 26a-2 (17 CFR 270.26a-2): _____

9. Other: _____. If other, describe: _____.

* * * * *

Item E.2. Authorized participants. For each authorized participant of the Fund, provide the following information:

* * * * *

b. SEC file number: _____

c. CRD number: _____

d. LEI, if any: _____

e. If no LEI is provided, RSSD ID, if any: _____

f. The dollar value of the Fund shares the authorized participant purchased from the Fund during the reporting period: _____

g. The dollar value of the Fund shares the authorized participant redeemed during the reporting period: _____

h. Did the Fund require that an authorized participant post collateral to the Fund or any of its designated service providers in connection with the purchase or redemption of Fund shares during the reporting period? [Y/N]

Instruction. The term “authorized participant” means a member or participant of a clearing agency registered with the Commission, which has a written agreement with the Exchange-Traded Fund or Exchange-Traded Managed Fund or one of its service providers that allows the authorized participant to place orders for the purchase and redemption of creation units.

* * * * *

Item F.1. Depositor. Provide the following information about each depositor:

* * * * *

- d. If no LEI is provided, RSSD ID, if any: ____
- e. State, if applicable: ____
- f. Foreign country, if applicable: ____
- g. Full name of ultimate parent of depositor: ____

Item F.2. Administrators.

a. * * *

- ii. LEI, if any, or RSSD ID, if any, or provide and describe other identifying number:

* * * * *

Item F.4. Sponsor. Provide the following information about each sponsor:

* * * * *

- d. If no LEI is provided, RSSD ID, if any: ____
- e. State, if applicable: ____
- f. Foreign country, if applicable: ____

* * * * *

Item G.1. Attachments.

* * * * *

Instructions.

* * * * *

2. * * *

(f) Security supported (if applicable). Disclose the full name of the issuer, the title of the issue (including coupon or yield, if applicable) and at least two identifiers, if available (*e.g.*, CIK, CUSIP, ISIN, LEI, RSSD ID).

* * * * *

By the Commission.

Dated: November 2, 2022.

Vanessa A. Countryman,

Secretary.

EXHIBIT 4

NYSA SERIES TRUST
507 Plum Street
Syracuse, NY 13204

VIA EDGAR CORRESPONDENCE

June 10, 2019

Mr. Ken Ellington
Staff Accountant
Division of Investment Management
Securities and Exchange Commission
100 F Street, NE
Washington, DC 20549

Re: Nysa Series Trust/Nysa Fund

Dear Mr. Ellington,

We are writing to you on behalf of Nysa Series Trust (Registrant) in response to the comments and inquiries conveyed to counsel on February 20, 2019, April 2, 2019, and May 24, 2019 relating to Registrant's filing of Form N-CSR on June 11, 2018. We note that the comments and inquiries conveyed to counsel on February 20, 2019 consisted of eight items. We have responded to seven of the eight items in a letter dated as of May 28, 2019 which has been transmitted to the Securities and Exchange Commission (Commission) via EDGAR correspondence. This letter is provided in response to the first item relating to Nysa Fund's investments in "illiquid securities" and the Fund's holdings in Ligand Pharmaceuticals, Inc.

Pursuant to further review of the liquidity classifications in SEC Rule 22e-4 (Rule), Pinnacle Advisors, LLC, the Administrator of the Liquidity Risk Management Program for the Nysa Fund (Fund), has concluded that the liquidity classification for Transluminal Technologies, LLC (TT) satisfies the requirements of a "less liquid" investment as set forth in the Rule.

The Administrator believes that TT could be expected to be sold within seven calendar days or less without the sale significantly changing the market value of the investment. In addition, a sale of TT would also be reasonably expected to settle in more than seven calendar days.

The Administrator reached this conclusion based on several factors. First, TT has recently sold its shares at a price of \$5.50 per share, which is approximately 15% above the price at which the Fund carries its TT shares. Second, individual accredited investors who are clients of the Fund's affiliated broker-dealer, Pinnacle Investments, LLC, have expressed interest in purchasing TT shares. Third, the news that TT is expected to close on a transaction with a major medical-device manufacturer for the sale of one of its proprietary medical technologies has stimulated interest in the company. Fourth, in recent meetings with Fund management, the President of TT, Stephen Green, has expressed his preference that the Fund not sell its shares at a price less than \$5.50 per share, the price at which TT is currently offering new

shares. And, finally, TT has a right of first refusal on any proposed sales of TT shares by the Fund. Given TT's preference for sales of TT shares not to occur at less than the price at which TT is offering shares, the right of first refusal presents another potential buyer for the Fund in the event it sought to sell some or all of its TT holdings. The Administrator will present its preliminary classifications of the Fund's investments to the Fund's Board of Trustees at the Board's September 2019 meeting. At that time, the Board's assessment of the investment liquidity classifications will be taken into account by the Administrator for final determination.

Over the last seven years, the Fund has never experienced a liquidity issue as it has always been able to meet shareholder redemption requests on a timely basis. At calendar year-end the Fund's assets under management (AUM) has consistently exceeded 70% of "Highly Liquid" investments, as noted below:

Year-End	"Highly Liquid" AUM, % of Total AUM
* 2012	82%
* 2013	87%
* 2014	76%
* 2015	75%
* 2016	73%
* 2017	76%
* 2018	80%

As of the most recent quarter-end, March 29, 2019, approximately 77% of the Fund's AUM consisted of "Highly Liquid" investments with Ligand representing approximately 46.45%. It seems to us that the staff's overall concern is that the Fund could not be timely liquidated to meet an event of substantial shareholder redemption requests. We performed an analysis, set forth below, based on the Fund's average annual portfolio data, with a focus on the category of "Highly Liquid" investments, such categories as cash and any investment that we believe could be converted to cash under current market conditions in three days or less without the conversion to cash resulting in a significant change in the market value of the investment.

Our first step was to analyze the liquidity of each of the Fund's portfolio investments; the next step was to perform a seven-year purchase and redemption analysis on the Fund, from 2012-2018. This calculation was performed by adding together all purchases and redemptions of Fund assets over the seven-year time period, then dividing that figure by the sum of Fund assets as of December 31st of each year-end over the same time period. The next step was to inflate this percentage by 150% and 200% to represent hypothetical scenarios of increased shareholder redemptions. Based on those calculations and assets in the Fund's portfolio at March 31, 2019, we calculated the coverage ratios shown in the chart below. Based on this analysis, we believe the "Highly Liquid" investments provide adequate liquidity for purposes of meeting future shareholder redemption requests.

Nysa Fund				
Hypothetical Redemption Request	Redemptions, % of AUM	AUM as of March 29, 2019	Highly Liquid AUM, % of Total Fund AUM	Coverage Ratio
7-year Average	4.44%	\$1,886,446.90	77%	17.45
150%	6.66%	\$1,886,446.90	77%	11.63
200%	8.88%	\$1,886,446.90	77%	8.72

The position in Ligand has become such a large holding in the Fund due to price appreciation. Over the years, the Fund's portfolio manager has liquidated portions of the position, but at this time deems the position to be undervalued by the market. The portfolio manager reviews this position on a daily basis and believes in the long-term value it could provide to shareholders.

Very truly yours,

Nysa Series Trust on Behalf of Nysa Fund

By: /S/Robert Cuculich

Its: President

CC: Patricia C. Foster, Esq.

General Information

Case Name	Securities and Exchange Commission v. Pinnacle Advisors, LLC et al
Court	U.S. District Court for the Northern District of New York
Date Filed	Fri May 05 00:00:00 EDT 2023
Judge(s)	FREDERICK JAMES SCULLIN, JR
Federal Nature of Suit	Statutes: Securities / Commodities / Exchanges [850]
Docket Number	5:23-cv-00547
Status	Closed
Parties	Securities and Exchange Commission; Pinnacle Advisors, LLC; Robert F. Cuculich; Mark E. Wadach; Lawton A. Williamson; Benjamin R. Quilty