SECURITIES AND EXCHANGE COMMISSION

17 CFR Parts 210, 270, 274

[Release Nos. 33–9922; IC–31835; File Nos. S7–16–15; S7–08–15]

RIN 3235–AL61; 3235–AL42

Open-End Fund Liquidity Risk Management Programs; Swing Pricing; Re-Opening of Comment Period for Investment Company Reporting Modernization Release

AGENCY: Securities and Exchange Commission.

ACTION: Proposed rule; re-opening of comment period.

SUMMARY: The Securities and Exchange Commission is proposing a new rule and amendments to its rules and forms designed to promote effective liquidity risk management throughout the open-end fund industry, thereby reducing the risk that funds will be unable to meet redemption obligations and mitigating dilution of the interests of fund shareholders in accordance with section 22(e) and rule 22c–1 under the Investment Company Act. The proposed amendments also seek to enhance disclosure regarding fund liquidity and redemption practices. The Commission is proposing new rule 22e–4, which would require each registered open-end fund, including open-end exchange-traded funds (''ETFs'') but not including money market funds, to establish a liquidity risk management program. The Commission also is proposing amendments to rule 22c–1 to permit a fund, under certain circumstances, to use ''swing pricing,'' the process of adjusting the net asset value of a fund's shares to effectively pass on the costs stemming from shareholder purchase or redemption activity to the shareholders associated with that activity, and amendments to rule 31a–2 to require funds to preserve certain records related to swing pricing. With respect to reporting and disclosure, the Commission is proposing amendments to Form N–1A regarding the disclosure of fund policies concerning the redemption of fund shares, and the use of swing pricing. The Commission also is proposing amendments to proposed Form N–PORT and proposed Form N–CEN that would require disclosure of certain information regarding the liquidity of a fund's holdings and the fund's liquidity risk management practices. In connection with these proposed amendments, the Commission is re-opening the comment period for Investment Company Reporting Modernization, Investment Company Act Release No. 31610 (May 20, 2015).

DATES: The comment period for the proposed rule published June 12, 2015 (80 FR 33589) is reopened. Comments on this release (Investment Company Act Release No. 31835) and Investment Company Act Release No. 31610 should be received on or before January 13, 2016.

ADDRESSES: Comments may be submitted by any of the following methods:

Electronic Comments

- Use the Commission's Internet comment form (*http://www.sec.gov/rules/proposed.shtml*); or
- Send an email to *rule-comments@sec.gov*. Please include File Number S7–16–15 or S7–08–15 on the subject line; or
- Use the Federal Rulemaking Portal (*http://www.regulations.gov*). Follow the instructions for submitting comments.

Paper Comments

- Send paper comments to Secretary, Securities and Exchange Commission, 100 F Street NE., Washington, DC 20549–1090.

All submissions should refer to File Number S7–16–15 or S7–08–15. The 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. The Commission will post all comments on the Commission's Internet Web site (*http://www.sec.gov/rules/proposed.shtml*). Comments are also available for Web site 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. All comments received will be posted without change; the Commission does not edit personal identifying information from 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 the Commission's Web site. 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: Melissa S. Gainor, Senior Special Counsel; Naseem Nixon, Senior Counsel; Amanda Hollander Wagner, Senior Counsel; Sarah A. Buescher, Branch Chief; or Sarah G. ten Siethoff, Assistant Director, Investment Company Rulemaking Office, at (202) 551–6792, 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 proposing for public comment amendments to rules 22c–1 [17 CFR 270.22c–1] and 31a–2 [17 CFR 270.31a–2], and new rule 22e–4 [17 CFR 270.22e–4], under the Investment Company Act of 1940 [15 U.S.C. 80a–1 *et seq.*] (''Investment Company Act'' or ''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.*]; amendments to Article 6 [17 CFR 210.6–01 *et seq.*] of Regulation S–X [17 CFR 210]; and amendments to proposed Form N–PORT [referenced in 17 CFR 274.150] and proposed Form N–CEN [referenced in 17 CFR 274.101] under the Investment Company Act.[1]

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[1] Unless otherwise noted, all references to statutory sections are to the Investment Company Act, and all references to rules under the Investment Company Act will be to Title 17, Part 270 of the Code of Federal Regulations [17 CFR 270].

I. Introduction

Daily redeemability is a defining feature of open-end management investment companies (''open-end funds'' or ''funds'') such as mutual funds.[2] As millions of Americans have come to rely on open-end funds as an investment vehicle of choice, the role of fund liquidity management in reducing the risk that a fund will be unable to meet its obligations to redeeming shareholders while also minimizing the impact of those redemptions on the fund (*i.e.,* mitigating investor dilution) is becoming more important than ever. The U.S. fund industry has experienced significant growth in the last 20 years,[3] markets have grown more complex, and funds pursue more complex investment strategies, including fixed income and alternative investment strategies that are focused on less liquid asset classes. Yet, it has been over twenty years since we have provided guidance regarding the liquidity of open-end funds other than money market funds.[4]

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 composition and operations of the asset management industry. 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 comprehensive liquidity risk management programs, others have dedicated significantly fewer resources to managing liquidity risk in a formalized way. We believe proposing to address these variations in practices is appropriate and 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 are proposing a set of comprehensive reforms that would provide for: (i) Liquidity risk management standards that address issues arising from modern portfolio construction; (ii) a new pricing method that, if funds choose to use it, could better allocate costs to shareholders entering or exiting the fund; and (iii) fuller disclosure of information regarding the liquidity of fund portfolios and how funds manage liquidity risk and redemption obligations. To accomplish this, first, we are proposing new rule 22e–4 under the Act, which would require funds to establish liquidity risk management programs. Under the proposed rule, the principal components of a liquidity risk management program would include a fund's classification and monitoring of each portfolio asset's level of liquidity, as well as designation of a minimum amount of portfolio liquidity, which funds would tailor to their particular

[2] An open-end fund 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 at the time of redemption. Section 22(d) of the Act prohibits a dealer from selling a redeemable security that is being offered to the public by or through an underwriter other than at a current public offering price described in the fund's prospectus. Rule 22c–1 under the Act requires open-end funds, their principal underwriters, and dealers in fund shares (and certain others) to sell and redeem fund shares at a price determined at least daily based on the current net asset value next computed after receipt of an order to buy or redeem. Together, these provisions require that fund shareholders be treated equitably when buying and selling their fund shares. 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 (except certain amendments to proposed Form N–CEN) and thus are not included when we refer to ''funds'' or ''open-end funds'' in this release except where specified. The term ''mutual fund'' is not defined in the 1940 Act.

[3] As of the end of 2014, there were 8,734 open-end funds (excluding money market funds, but including ETFs), as compared to 2,960 at the end of 1992. *See* Investment Company Institute, 2015 Investment Company Fact Book (2015), *available at http://www.ici.org/pdf/2015_factbook.pdf* (''2015 ICI Fact Book''), at 177 and 184.

[4] Revisions of Guidelines to Form N–1A, Investment Company Act Release No. 18612 (Mar. 12, 1992) [57 FR 9828 (Mar. 20, 1992)] (''Guidelines Release'').

circumstances after consideration of a set of market-related factors established by the Commission.

Second, in order to provide funds with an additional tool to mitigate potential dilution and to manage fund liquidity, we are proposing 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 net asset value of a fund's shares to pass on to purchasing or redeeming shareholders more of the costs associated with their trading activity. Lastly, in order to give investors, market participants, and Commission staff improved information on fund liquidity and redemption practices, we are proposing amendments to our disclosure requirements and recently proposed data reporting forms. We discuss these proposals as well as why liquidity management is so vital to investors in open-end funds and the developments that have led us to this proposal further below. Taken together, these reforms are designed to provide investors with increased protections regarding how liquidity in their open-end funds is managed, thereby reducing the risk that funds will be unable to meet redemption obligations and mitigating dilution of the interests of fund shareholders. These reforms are also intended to give investors better information with which to make investment decisions, and to give the Commission better information with which to conduct comprehensive monitoring and oversight of an ever-evolving fund industry.

II. Background

A. Open-End Funds

Over the past few decades, investors increasingly have come to rely on investments in open-end funds to meet their financial needs and access the capital markets. Individuals invest in these funds for a variety of reasons, from investing for retirement and their children's college education to providing a source of financial security for emergencies and other lifetime events. Institutions also invest significantly in open-end funds as part of basic or sophisticated trading and hedging strategies or to manage cash flows.

There are currently two kinds of open-end funds: Mutual funds and ETFs.[5] At the end of 2014, 53.2 million households, or 43.3 percent of all U.S. households owned mutual funds.[6] Mutual 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 losses of the fund, and also share its costs. Investors in mutual funds can redeem their shares on each business day and, by law, must receive their pro rata share of the fund's net assets (or its cash value) within seven calendar days after delivery of a redemption notice.[7]

ETFs also offer investors an undivided interest in a pool of assets. Since 2003, the number of ETFs traded in U.S. markets has increased by more than 1,200 funds, and the assets held by ETFs have increased from $151 billion at the end of 2003 to $1.9 trillion at the end of 2014.[8] ETF shares, similar to stocks, are bought and sold throughout the day by investors on an exchange through a broker-dealer.[9] In addition, like mutual funds, ETFs provide redemption rights on a daily basis, but, pursuant to exemptive orders, such redemption rights may only be exercised by certain large market participants—typically broker-dealers—called ''authorized participants.'' Authorized participants may purchase and redeem ETF shares at the ETF's net asset value per share (''NAV'') from the ETF.[10] 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.[11] The ETF makes public the contents of the portfolio deposit before the beginning of the trading day.[12] After purchasing a creation unit, an authorized participant may hold the ETF shares 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 made public by the ETF before the beginning of the trading day. The redemption basket (which is usually, but not always, the same as the portfolio deposit) typically consists of securities and a small amount of cash.[13] In addition, while less common, some ETFs represent to the Commission that they ordinarily intend to conduct all purchase and redemption transactions with authorized participants in cash instead of an in-kind basket of assets, and all ETFs reserve the right to transact with authorized participants in cash. The ability of these authorized participants to purchase and redeem creation units at each day's NAV enables authorized participants (or market makers that trade through authorized participants) to exercise arbitrage opportunities that are generally expected to have the effect of keeping the market price of ETF shares at or close to the NAV of the ETF.[14]

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[5] 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 (i) is organized under a trust indenture, contract of custodianship or agency, or similar instrument, (ii) does not have a board of directors, and (iii) 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.

[6] *See* 2015 ICI Fact Book, *supra* note 3, at 114.

[7] *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 open-end fund 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).

[8] *See* 2015 ICI Fact Book, *supra* note 3, at 60.

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

[10] Authorized participants purchase ETF shares at the ETF's NAV through the ETF's underwriter or other service provider.

[11] *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 n.19 and accompanying text.

[12] *See id.* at n.20 and accompanying text.

[13] *See id.* at n.21 and accompanying text.

[14] For example, if ETF shares begin trading on national securities exchanges at a price below the ETF's NAV, authorized participants can purchase ETF shares in secondary market transactions and, after accumulating enough shares to comprise a creation unit, redeem them from the ETF in exchange for the more valuable securities in the ETF's redemption basket. Those purchases create greater market demand for the ETF shares, and thus tend to drive up the market price of the shares to a level closer to NAV. Conversely, and again by way of example, if the market price for ETF shares exceeds the NAV of the ETF itself, an authorized participant can deposit a basket of securities in exchange for the more valuable creation unit of ETF shares, and then sell the individual shares in the market to realize its profit. These sales would increase the supply of ETF shares in the secondary market, and thus tend to drive down the price of the ETF shares to a level closer to the NAV of the ETF share. In each case, the authorized participant (or its market maker customer) may hedge its

Recently, the Commission has also approved exchange-traded managed funds (''ETMFs'').[15] ETMFs are a hybrid between a traditional mutual fund and an ETF. Like ETFs, ETMFs would 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 would be bought and sold at prices linked to NAV and would seek to maintain the confidentiality of their current portfolio positions. While no ETMF has been launched yet, the proposed rule and amendments (except the proposed amendments to rule 22c–1) would also apply to ETMFs to the same extent as to other open-end funds whose shares are redeemable on a daily basis.

Open-end funds are an attractive investment option for many different types of investors because they provide diversification, economies of scale, and professional management. They also facilitate retail investors' access to certain investment strategies or markets that might be difficult (if not impossible) or time consuming for investors to replicate on their own.[16] Additionally, open-end funds have become a popular investment vehicle because they may provide a cost-efficient way for investors to track a benchmark index or strategy.[17]

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,[18] 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.[19] As a practical matter, many investors expect to receive redemption proceeds in less than seven days as some mutual funds disclose in their prospectuses that they will generally pay redemption proceeds on a next-business day basis.[20] Furthermore, 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.[21] Given the statutory and regulatory requirements for meeting redemption requests, as well as any disclosure 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.[22]

Sufficient liquidity of ETF portfolio positions also is important. ETFs typically make in-kind redemptions of creation units, which can mitigate liquidity concerns for ETFs compared to mutual funds, 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.[23] However, transferring illiquid instruments to the redeeming authorized participants could result in a liquidity cost to the authorized participant or any of its clients, which would then be reflected in the bid-ask spread and ultimately impact investors. Moreover, declining liquidity in an ETF's basket assets could affect the ability of an authorized participant or any of its clients to readily assemble the basket for purchases of creation units and to sell securities received upon redemption of creation units.[24]

In addition, 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

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exposure to cover the risk from the time the arbitrage opportunity is exercised through the time it can deliver shares or assets to the ETF, at which time it will unwind its hedge. *See* ETF Proposing Release, *supra* note 9, at nn.25–30 and accompanying text; *see also* 2015 ETP Request for Comment, *supra* note 11, at section I.C.2.

[15] *See* Eaton Vance Management, et al., Investment Company Act Release Nos. 31333 (Nov. 6, 2014) (notice) (''ETMF Notice'') and 31361 (Dec. 2, 2014) (order). For the purposes of the proposed amendments to rule 22c–1, the definition of ''exchange-traded fund'' shall include ETMFs.

[16] For example, many retail investors would have difficulty investing in certain foreign and emerging market securities given local requirements for purchasing and holding such securities. In addition, some securities may only be sold in large blocks that retail investors would be unlikely to be able to purchase. Many retail investors also may not have the expertise to construct investment strategies followed by, for example, alternative funds on their own. *See also* Notice Seeking Comment on Asset Management Products and Activities, Docket No. FSOC–2014–0001 (''FSOC Notice''); Comment Letter of the Asset Management Group of SIFMA and the Investment Adviser Association on the FSOC Notice (Mar. 25, 2015) (''SIFMA IAA FSOC Notice Comment Letter''), at 12 (''Pooled funds provide many individual investors exposure to asset classes that they could not reach without investing collectively.''); Comment Letter of the Investment Company Institute on the FSOC Notice (Mar. 25, 2015) (''ICI FSOC Notice Comment Letter''), at 11 (''The vast majority of [mutual fund] investors would be unable to replicate such investment exposure by directly holding securities themselves.'').

[17] *See e.g.,* Rick Ferri, *Index Funds Gain Momentum (Part 1 of 2),* FORBES (July 29, 2013), *available at http://www.forbes.com/sites/rickferri/2013/07/29/index-funds-gain-momentum-part-1-of-2/* (discussing the growth of passively managed index funds and ETFs that follow indexes).

[18] *See* sections 5(a)(1) and 2(a)(32) of the Act. All other management companies are closed-end (''closed-end funds''). Closed-end fund shareholders do not have redemption rights and closed-end funds are usually traded on secondary markets, either on exchanges or over the counter, at prices that may be at a premium or a discount to the fund's NAV.

[19] 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.

[20] *See* Comment Letter of Fidelity Investments on the FSOC Notice (Mar. 25, 2015) (''Fidelity FSOC Notice Comment Letter''), at 6 (''mutual funds normally process redemption requests by the next business day''); *see also* ICI FSOC Notice Comment Letter, *supra* note 16, at 17 (''For example, a mutual fund has by law up to seven days to pay proceeds to redeeming investors, although as a matter of practice funds typically pay proceeds within one to two days of a redemption request.'').

[21] 17 CFR 240.15c6–1. In a 1995 staff no-action letter, the Division of Investment Management expressed the view that because rule 15c6–1 under the Exchange Act applies to broker-dealers and does not apply directly to funds, the implementation of T+3 pursuant to rule 15c6–1 did not change the standards for determining liquidity, which were based on the requirements of section 22(e) of the Investment Company Act. The Division noted, however, that as a practical matter, many funds have to meet redemption requests within three business days because a broker-dealer is often involved in the redemption process. *See* Letter from Jack W. Murphy, Associate Director and Chief Counsel, Division of Investment Management, SEC, to Paul Schott Stevens, General Counsel, Investment Company Institute (May 26, 1995), *available at http://www.sec.gov/divisions/investment/noaction/1995/ici052695.pdf*, (''May 1995 Staff No-Action Letter''); *see also* Fidelity FSOC Notice Comment Letter, *supra* note 20, at 6 (''As a practical matter, three-day settlement requirements under Exchange Act Rule 15c6–1 . . . effectively take most fund investments to a T+3 settlement timeline.'').

[22] *See* ICI FSOC Notice Comment Letter, *supra* note 16, at 6–7 (''Daily redeemability is a defining feature of mutual funds. This means that liquidity management is not only a regulatory compliance matter, but also a major element of investment risk management, an intrinsic part of portfolio management, and a constant area of focus for fund managers.'').

[23] ETFs have some discretion in determining their basket composition. *See, e.g.,* New York Alaska ETF Management LLC, et al., Investment Company Act Release Nos. 31667 (June 12, 2015) (notice) and 31709 (July 8, 2015) (order).

[24] ETF Proposing Release, *supra* note 9 at section III.A.1. *But see, e.g.,* Shelly Antoniewicz, Investment Company Institute, *Plenty of Players Provide Liquidity for ETFs* (Dec. 2, 2014), *available at http://www.ici.org/viewpoints/view_14_ft_etf_liquidity* (''Antoniewicz'') (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).

ETF.[25] 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.[26] The liquidity of the ETF's portfolio positions is a factor that contributes to the effective functioning of the ETF's arbitrage mechanism and the ETF shares trading at a price that is at or close to the NAV of the ETF.[27]

If authorized participants are unwilling or unable to trade ETF shares in the primary market, and the majority of trading takes place among investors in the secondary market, the ETF's shares may trade at a significant premium or a discount to the value of the ETF's underlying portfolio securities.[28] As a result, the ETF's arbitrage mechanism that keeps the secondary price at or close to NAV would not function effectively. In a period of significant decline in market liquidity, this could cause the ETF, in effect, to function more like a closed-end investment company, potentially frustrating the expectations of secondary market investors.[29] In addition, all ETFs permit authorized participants to redeem in cash, rather than in kind, and some ETFs ordinarily redeem authorized participants in cash. ETFs that elect to redeem authorized participants in cash, like mutual funds, would need to ensure that they have adequate portfolio liquidity (in conjunction with any other liquidity sources) to meet shareholder redemptions.[30]

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, the ETMF would need to hold sufficiently liquid assets to meet such redemptions to the extent that authorized participants redeem in cash. Like ETFs, however, the ETMF's ability to make in-kind redemptions could mitigate liquidity concerns.[31] Further, as ETMF market makers would not engage in the same arbitrage as ETF market makers,[32] the liquidity of an ETMF's portfolio might have a limited relevance beyond the ETMF's ability to meet redemptions.

2. Liquidity Management by Open-End Funds

Portfolio managers consider a variety of factors in addition to liquidity when constructing a fund's portfolio, including the fund's investment strategies, economic and market trends, portfolio asset credit quality, and tax considerations. Nevertheless, meeting daily redemption obligations is fundamental for open-end funds, and funds must manage liquidity in order to meet these obligations.[33] Several factors influence how liquidity management by open-end funds affects the equitable treatment of investors in a fund, investor incentives, and potentially the orderly operation of the markets when fulfilling redemption obligations.

[25] *See* Comment Letter of the Investment Company Institute on Exchange-Traded Funds, File No. S7–07–08 (May 19, 2008) (discussing the impact of the inclusion of illiquid assets in an ETF's portfolio). *See also* Comment Letter of The American Stock Exchange LLC on the Concept Release: Actively Managed Exchange-Traded Funds, File No. S7–20–01 (Mar. 5, 2002) (''Ultimately it is in the interest of the sponsor and investment adviser to provide for effective arbitrage opportunities. It is unlikely that an . . . ETF sponsor would be able to convince the critical market participants such as specialists, market makers, arbitragers and other Authorized Participants to support a product that contained illiquid securities to a degree that would affect the liquidity of the ETF, making it difficult to price, trade and hedge, ultimately leading to its failure in the marketplace.'').

[26] ETFs exist today only through exemptive orders issued by the Commission providing relief from a number of provisions of the Investment Company Act, including the requirement that they sell and redeem their individual shares at NAV.

[27] *See* 2015 ETP Request for Comment, *supra* note 11, at n.102 and accompanying text (requesting comment on the trading of exchange-traded product securities that invest in less liquid assets and the effective functioning of the arbitrage mechanism in these products). *See, e.g.,* Comment Letter of BlackRock, Inc. on the 2015 ETP Request for Comment (Aug. 11, 2015) (discussing the arbitrage mechanism with respect to less liquid assets); Comment Letter of KCG Holdings, Inc. on the 2015 ETP Request for Comment (Aug. 17, 2015) (''While ETF pricing closely tracks NAV for most ETFs, certain types of ETFs exhibit less close alignment between ETF prices and NAV. . . Price discovery difficulties in the bond market makes it much more difficult and expensive to perform arbitrage in bond ETFs, and this difficultly may be exacerbated during stressed market environments.''); Comment Letter of State Street Global Advisors on the 2015 ETP Request for Comment (Aug. 17, 2015) (discussing the arbitrage mechanism with respect to fixed-income based ETFs).

[28] *See, e.g.,* Bradley Hope et al., *Stock-Market Tumult Exposes Flaws in Modern Markets,* The Wall Street Journal (Aug. 25, 2015), *available at http://www.wsj.com/articles/stock-market-tumult-exposes-flaws-in-modern-markets-1440547138* (noting that ''[d]ozens of ETFs traded at sharp discounts'' to NAV during a market sell-off, ''leading to outsize losses for investors who entered sell orders at the depth of the panic''). We recognize that not all changes in market liquidity can lead to such extreme results. In many cases of day-to-day price volatility and fluctuations in liquidity, market participants will simply demand greater compensation for purchasing less liquid or more volatile assets. However, declining liquidity can become so acute that market makers and investors begin to refrain from conducting transactions. *See, e.g.,* Carrie Driebusch et al., *The Problem with ETFs*, The Wall Street Journal (Sept. 14, 2015) (stating that the ''trading turmoil of Aug. 24 disrupted the arbitrage activity in which traders buy and sell ETFs and their components to take advantage of price discrepancies.'').

[29] *See, e.g.,* Matthew Tucker & Stephen Laipply, ''Fixed Income ETFs and the Corporate Bond Liquidity Challenge'' (2014), *available at http://www.ishares.com/us/literature/brochure/blackrock-ish-fixed-income-etfs-wp-prd-814.pdf*, at 9 (''It should be noted that, although fixed income ETFs have created an incremental source of bond market liquidity for investors, the ETF structure itself remains dependent on the liquidity of the underlying bond market. ETFs serve as efficient risk transfer vehicles because the value at which they trade is reflective of the value of the underlying bonds held within the ETF. If a true and actionable value discrepancy between the ETF and its underlying bond portfolio develops, market participants can trade one versus the other to take advantage of the arbitrage opportunity. This mechanism is premised upon a functioning OTC bond market that can be accessed to buy and sell the underlying securities. Ultimately, if the underlying bond market liquidity becomes impaired then the ETF creation/redemption process would become impaired as well. In such a scenario the ETF would continue to provide price discovery, but would mechanically begin to function more like a closed-end fund (which is unable to grow or shrink in size in order to balance supply and demand). While ETFs provide liquidity enhancement for the bond market, they remain structurally dependent upon the same market.'').

Market stresses have demonstrated how declines in market liquidity may cause an ETF's shares to trade at a significant premium or discount to the shares of the ETF's underlying portfolio assets. *See, e.g.,* Eleanor Laise, *Risks Lurk for ETF Investors,* The Wall Street Journal (Feb. 1, 2010), *available at http://www.wsj.com/articles/SB10001424052748703837004575012772071656484* (''A lack of liquidity also may cause the ETF to trade at a large premium or discount to net asset value. . . . This means an investor buying the fund may overpay for that portfolio, or an investor selling could get less than that basket of securities is worth.''); Bradley Kay, *Has the ETF Arbitrage Mechanism Failed?,* Morningstar (Mar. 11, 2009), *available at http://news.morningstar.com/articlenet/article.aspx?id=283302* (stating that during periods of market stress, market prices for ETFs may deviate significantly from NAV); ETF Trends, *While Athens Exchange is Closed, the Greece ETF Show Goes On* (July 6, 2015), *available at http://www.etftrends.com/2015/07/while-athens-exchange-is-closed-the-greece-etf-show-goes-on/* (reporting that the Global X FTSE Greece 20 ETF was trading at a significant discount compared to the net asset value of its underlying portfolio assets because of the closure of the Athens Stock Exchange); ETF Trends, *China A-Shares ETFs Trading at Steep Discount to NAV* (July 9, 2015), *available at http://www.etftrends.com/2015/07/china-a-shares-etfs-trading-at-steep-discount-to-nav/* (reporting that U.S.-listed China A-shares ETFs were trading at a steep discount to the underlying market because of the fact that a significant number of companies stopped trading on China's mainland stock exchanges).

[30] When an ETF does permit an authorized participant to redeem in cash, it typically requires the authorized participant to pay a fee covering the costs of the liquidity it receives. *See* BlackRock, Viewpoint, *Fund Structures as Systemic Risk Mitigants* (Sept. 2014), *available at http://www.blackrock.com/corporate/en-us/literature/whitepaper/viewpoint-fund-structures-as-systemic-risk-mitigants-september-2014.pdf* (''BlackRock Fund Structures Paper''), at 7.

[31] However, an ETMF's transferring illiquid instruments to the redeeming authorized participants would likely affect the premium/discount over NAV at which ETMF shares trade. *See* ETMF Notice, *supra* note 15, at n.17.

[32] ETMF market makers would assume no intraday market risk in their ETMF share inventory positions because all trading prices are linked to NAV. *See id.* at paragraphs 13 and 24.

[33] *See supra* note 2.

First, it is important to consider how a mutual fund (or ETF redeeming shares by using significant amounts of cash) meets redemptions. When a fund receives redemption requests from shareholders, and the fund does not have cash on hand to meet those redemptions,[34] the fund has discretion to determine whether to sell portfolio assets to generate cash to meet the redemptions and which assets will be sold, or to obtain cash by other available means such as bank lines of credit.[35] A fund may 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 in the near term need to rebalance its portfolio so that the fund continues to follow its investment strategies.[36] A fund that chooses to sell its most liquid assets to meet fund redemptions 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 rebalances.[37] 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).[38] 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. Additionally, funds could choose to opportunistically pare back or eliminate holdings in a particular asset or sector to meet redemptions. As discussed further in section IV.B.2, analysis conducted by staff in the Division of Economic and Risk Analysis (the ''DERA Study'' [39]) suggests that the typical U.S. equity fund appears to sell relatively more liquid assets (as opposed to a strip of the fund's portfolio) to meet redemptions, and that as a fund's liquidity decreases, a fund will become even more likely to sell its relatively more liquid assets (rather than a strip of its portfolio) to meet redemptions (thus resulting in decreased liquidity in the fund's portfolio).

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.[40] As most funds, with the exception of money market funds, only calculate their NAV 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.[41] When 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.[42] We allow 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 the trade date.[43] As a practical matter, this calculation method also gives broker-dealers, retirement plan administrators, and other intermediaries additional time to process transactions received by 4 p.m. on the trade date, which then may be reflected in the fund's NAV on the business day following the trade date. Given that under many circumstances reflecting these changes on the trade date would not materially affect the fund's price, we have allowed and continue to allow such changes to be reflected no later than the first 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. Such activities associated with meeting redemptions may include, for example, selling assets and, if the fund's most liquid assets are sold to meet redemptions, rebalancing the portfolio to avoid departing from the fund's investment strategies. If these activities occur (and their associated costs are incurred) in days following redemption requests, the costs of providing liquidity to redeeming investors could be borne at least partially by the remaining investors in the fund, thus potentially diluting the

[34] 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.,* Fidelity FSOC Notice Comment Letter, *supra* note 20, 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.'').

[35] *See, e.g., id.,* at 21 (''When facing stressed markets and shareholder redemptions, a portfolio manager must decide whether to: (i) maintain current portfolio composition and sell a cross section of holdings; (ii) meet redemptions with cash and/or index futures if held, with the result being increased concentrations in non-cash positions; or (iii) reposition a portfolio's composition by selling a mixture of holdings and cash and/or index futures, thereby realigning holdings in response to shifting market prices and expectations.'').

A fund could also use a line of credit to meet redemptions instead of selling assets, but using a line of credit leverages the fund, and thus many funds only do so infrequently. *See infra* section III.C.5.a (discussing the extent to which drawing on a credit line to meet redemptions could result in negative impacts on the fund, and providing guidance on borrowing arrangements entered into by funds); *see also* Fidelity FSOC Notice Comment Letter, *supra* note 20, at 21 (''Fully substituting cash liquidation for security sales is a very short-term strategy if redemptions are persistent.''); Comment Letter of Invesco Ltd. on the FSOC Notice (Mar. 25, 2015) (''Invesco FSOC Notice Comment Letter''), at 10 (stating that Invesco portfolio managers do not automatically sell the most liquid assets when there is a need to raise cash for redemptions or other purposes and that they may seek to rebalance portfolios in falling markets in a manner that cushions the impact of redemptions). *But see infra* note 371 (noting that other funds rely on lines of credit more frequently).

A fund also may reserve the right to redeem its shares in kind instead of in cash. However, there are often logistical issues associated with paying in-kind redemptions, which limit the availability of in-kind redemptions under many circumstances. *See infra* section III.C.5.c.

[36] Some mutual funds disclose that they may temporarily depart from their investment strategies in order to take a ''temporary defensive position'' to avoid losses in response to adverse market, economic, political or other conditions. *See* Investment Company Names, Investment Company Act Release No. 24828 (Jan. 17, 2001) [66 FR 8509 (Feb. 1, 2001)] (''Investment Company Names Rule Release'').

[37] *See, e.g.,* Matt Wirz, *Waddell Fund's Sales Leave Investors With Riskier Securities,* The Wall Street Journal (June 16, 2015), *available at http://www.wsj.com/articles/waddell-funds-sales-leave-investors-with-riskier-securities-1434482621* (noting that from July 2014 through June 2015, a high-yield bond fund experienced heavy redemptions that caused its net assets to shrink 33% in this period, and during this same period, the fund's holdings of bonds rated triple-C or below grew to 47% of assets, from 35% before the redemptions).

[38] 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.

[39] Paul Hanouna, Jon Novak, Tim Riley, Christof Stahel, ''Liquidity and Flows of U.S. Mutual Funds,'' Division of Economic and Risk Analysis White Paper, September 2015, *available at http://wcm.sec.gov/dera/staff-papers/white-papers/liquidity-white-paper-09-2015.pdf.*

[40] Rule 22c–1(a). *See also supra* note 2.

[41] Commission rules do not require that a fund calculate its NAV at a specific time of day. Rule 22c–1 generally requires that the purchase and redemption of a redeemable security be effected at the current NAV next computed after receipt of a purchase or redemption request. *See* rule 22c–1(a). Current NAV 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).

[42] Rule 2a–4(a)(2)–(3).

[43] *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)].

interests of non-redeeming shareholders.[44] The less liquid the fund's portfolio holdings, the greater these liquidity costs can become.[45]

Thus, with respect to redemptions, there can be significant adverse consequences to remaining investors in a fund when it fails to adequately manage liquidity.[46] For example, portfolio assets held by a fund can become increasingly illiquid as its more liquid portfolio assets are sold to meet redemptions and thus could have a compounding effect of causing the fund's entire portfolio to become increasingly illiquid for purposes of meeting future shareholder redemptions, which could adversely affect the fund's risk profile.[47] Furthermore, if a fund finds that it can only sell portfolio assets (or portions of a position in a particular asset) that are less liquid at prices that incorporate a significant discount from fair value, the discounted sale price can materially affect the fund's NAV.[48]

These factors in fund redemptions—either individually or in combination—can create incentives in times of liquidity stress in the markets for early redemptions (or a ''first-mover advantage'').[49] If investor redemptions are motivated by this first-mover advantage,[50] they can lead to increasing levels of redemptions, and as the level of outflows from a fund increases, the incentive to redeem also increases.[51] 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.[52] 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 materially affecting the fund's NAV.[53]

There also is a potential for adverse effects on the markets when open-end funds fail to adequately manage liquidity. 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. Such liquidity stress on the assets held in the fund may transmit

[44] *See, e.g.,* Comment Letter of Mutual Fund Directors Forum on the FSOC Notice (Mar. 25, 2015), at 5 (stating that ''there could be severe outlier situations in which sudden and extensive redemptions might impose costs on non-redeeming shareholders, either because of increases in transaction costs associated with selling portfolio securities in stressful circumstances or because portfolio managers are forced to sell securities into falling markets at a price less than what they believe the security's fundamental value to be.''). We note that ETFs either conduct redemptions with authorized participants in kind or, if in cash, typically require the authorized participant to pay a fee covering the costs of the liquidity it receives. *See supra* note 30 and accompanying text. Accordingly, ETFs do not necessarily create the same dilution concerns as mutual funds.

[45] *See* Comment Letter of Nuveen Investments on the FSOC Notice (Mar. 25, 2015) (''Nuveen FSOC Notice Comment Letter''), at 10 (stating that ''to the extent that the prices of portfolio securities do not reflect the most current market conditions, which is more likely to occur with less liquid asset classes in stressed markets, a fund with net redemptions may be paying more to redeeming shareholders than it should (giving such redeemers a 'first mover advantage'), thereby harming remaining shareholders and the long-term performance of the fund'' but noting that there is no evidence that shareholders are actually motivated by this advantage); Comment Letter of Occupy the SEC on the FSOC Notice (Mar. 25, 2015) (''Occupy the SEC FSOC Notice Comment Letter''), at 13 (stating that many funds that hold securities traded over-the-counter cannot observe market prices so they base their NAVs on price estimates and that these ''estimates are surely lagging, particularly in turbulent times'').

[46] *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).'').

[47] *See, e.g.,* In re Heartland Advisors, Inc., et al., Investment Company Act Release No. 28136 (Jan. 25, 2008) (''Heartland Release'') (settled enforcement action against advisory firm alleging 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).

[48] *Id.*

[49] *See, e.g.,* Qi Chen, Itay Goldstein & Wei Jiang, *Payoff Complementarities and Financial Fragility: Evidence from Mutual Fund Outflows,* 97 J. Fin. Econ. 239 (2010), at 240 (''Because mutual funds conduct most of the resulting trades after the day of redemption, most of the costs are not reflected in the NAV paid out to redeeming investors, but rather are borne by the remaining investors. This leads to strategic complementarities—the expectation that other investors will withdraw their money reduces the expected return for staying in the fund and increases the incentive for each individual investor to withdraw as well—and amplifies the damage to the fund.''); Comment Letter of State Street Corporation on the FSOC Notice (Mar. 25, 2015), at 3 (''Anticipation of other investors' activity could be a powerful motivator for selling units by a fund holder, particularly if the structure of the fund was such that continuing investors were concerned in some way of being disadvantaged by earlier generations of exiting investors.''). *But see* Fidelity FSOC Notice Comment Letter, *supra* note 20, at 9–10 (stating that there are several limitations in the Chen, Goldstein, & Jiang academic paper, including that its analysis excluded retirement shares, analyzed only equity and not bond funds, and did not examine recent data (it examined data from 1995 to 2005); Nuveen FSOC Notice Comment Letter, *supra* note 45, at 10 (stating that there is no evidence that shareholders are actually motivated by a first-mover advantage). We also note that any first-mover advantage may be further mitigated in ETFs to the extent that they conduct in-kind redemptions of authorized participants or charge liquidity fees for cash redemptions. *See supra* note 30 and accompanying text.

[50] *See, e.g.,* Comment Letter of BlackRock on the FSOC Notice (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 FSOC Notice (Mar. 25, 2015) (''AII FSOC Notice Comment Letter''), 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 FSOC Notice (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* note 16, 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.'').

[51] *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 infra* notes 805–809 and accompanying text for a discussion of predatory trading concerns.

[52] *See, e.g.,* Greene & Hodges, *supra* note 46.

[53] *See, e.g.,* Fidelity FSOC Notice Comment Letter, *supra* note 20, 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.'').

stress to other funds or portions of the market as well.[54]

In December 2014, the Financial Stability Oversight Council (''FSOC'') issued a notice seeking public comment on the potential risks to the U.S. financial system that may be posed by asset management products and activities in the areas of liquidity and redemptions among others.[55] Although our rulemaking proposal is independent of FSOC, several commenters responding to the FSOC notice discussed issues concerning liquidity and redemptions, and we have considered and cited to the relevant comments throughout the release.[56] As the primary regulator of the U.S. securities markets, we are proposing rules today that focus on mitigating the adverse effects that liquidity risk in funds can have on investors and the fair, efficient and orderly operation of the markets. To the extent there are any potential financial stability risks from poor fund liquidity management,[57] our proposal may mitigate those risks as well.

C. Recent Developments in the Open-End Fund Industry

Recent industry developments have underlined our focus on the importance of liquidity risk management practices in open-end funds. 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. 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 44.5% in 2014.[58] Assets of foreign bond and foreign equity funds have grown during the same period from 11% to 17.4%,[59] and there has been significant growth in fixed income and alternative strategy funds, as discussed below.

1. Fixed Income Funds and Alternative Funds

We have observed significant growth in cash flows into, and assets of, fixed income mutual funds and fixed income ETFs. Assets in these funds grew from $1.5 trillion at the end of 2008 to $3.5 trillion at the end of 2014, with net inflows exceeding $1.3 trillion during that period.[60] As growth in fixed income fund assets was occurring, we increased our focus on fixed income market structure, holding a roundtable focused on the fixed income markets in 2013 and publishing a report on the municipal securities markets in 2012.[61] In addition, both Commissioners and Commission staff have spoken about the need to focus on potential risks relating to the fixed income markets and their underlying liquidity.[62] 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 and 2015.[63]

We also have observed recent growth in alternative mutual funds. Since 2005, the assets of open-end funds with alternative strategies have grown significantly, from approximately $365 million at the end of 2005 to approximately $334 billion at the end of 2014.[64] Although the assets of open-end funds pursuing alternative strategies accounted for a relatively small percentage (approximately 3%) of the mutual fund market as of December 2014, the growth of assets in these funds has been substantial, with asset growth of approximately 58% each year from

[54] *See, e.g.,* Francis A. Longstaff, *The Subprime Credit Crisis and Contagion in Financial Markets,* 97 J. Fin. Econ. No. 3 436 (2010) (finding that financial contagion during the financial crisis from the subprime asset-backed securities market was propagated to other markets primarily through liquidity and risk-premium channels, rather than through a correlated-information channel); U.S. Presidential Task Force on Market Mechanisms & U.S. Dept. of the Treasury, *Report of the Presidential Task Force on Market Mechanisms* (Jan. 1988), *available at https://archive.org/details/reportofpresiden01unit* (''1987 Market Crash Report''), at III–16—III–26, IV–1—IV–8 (discussing mutual fund selling behavior during the October 1987 stock market crash, and in particular the selling of three mutual fund companies, whose heavy selling of assets to meet significant redemptions ''accounted for approximately one quarter of all trading on the NYSE for the first 30 minutes that the Exchange was open'' on October 19, 1987 and that such selling had ''a significant impact on the downward direction of the market'').

[55] FSOC Notice, *supra* note 16.

[56] Comments submitted in response to the FSOC Notice are available at *http://www.regulations.gov/#!docketDetail;D=FSOC-2014-0001.*

[57] *See, e.g.,* Itay Goldstein, Hao Jiang & David T. Ng, *Investor Flows and Fragility in Corporate Bond Funds,* unpublished working paper (June 25, 2015), *available at http://finance.wharton.upenn.edu/~itayg/Files/bondfunds.pdf* (finding that ''corporate bond funds tend to have more concave flow-performance relationships when they have more illiquid assets and when the overall market illiquidity is high'' and that these results ''point to the possibility of fragility'').

[58] DERA Study, *supra* note 39, at Table 2.

[59] *Id.*

[60] These figures were obtained from staff analysis of Morningstar Direct data, and are based on fund categories defined by Morningstar.

[61] *See* 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); 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).

[62] *See, e.g.,* Chair Mary Jo White, Speech, *Intermediation in the Modern Securities Markets: Putting Technology and Competition to Work for Investors,* (June 20, 2014), *available at http://www.sec.gov/News/Speech/Detail/Speech/1370542122012*; Commissioner Luis A. Aguilar, Speech, *Advocating for Investors Saving for Retirement,* (Feb. 5, 2015), *available at http://www.sec.gov/news/speech/advocating-for-investors-saving-for-retirement.html*; Commissioner Daniel M. Gallagher, Speech, *A Watched Pot Never Boils: the Need for SEC Supervision of Fixed Income Liquidity, Market Structure, and Pension Accounting,* (Mar. 10, 2015), *available at http://www.sec.gov/news/speech/031015-spch-cdmg.html* and *Remarks Regarding the Fixed Income Markets at the Conference on Financial Markets Quality,* (Sept. 19, 2012), *available at http://www.sec.gov/News/Speech/Detail/Speech/1365171491192*; Commissioner Michael S. Piwowar, Speech, *Remarks at the 2014 Municipal Finance Conference presented by The Bond Buyer and Brandeis International Business School,* (Aug. 1, 2014), *available at http://www.sec.gov/News/Speech/Detail/Speech/1370542588006*; Commissioner Kara M. Stein, Speech, *Mutual Funds—The Next 75 Years,* (June 15, 2015), *available at http://www.sec.gov/news/speech/mutual-funds-the-next-75-years-stein.html*; Norm Champ, former Director of the Division of Investment Management, Speech, *Remarks to the ICI 2014 Securities Law Developments Conference,* (Dec. 10, 2014), *available at http://www.sec.gov/News/Speech/Detail/Speech/1370543675348*; IM Guidance Update No. 2014–01, Risk Management in Changing Fixed Income Market Conditions (Jan. 2014), *available at http://www.sec.gov/divisions/investment/guidance/im-guidance-2014-1.pdf* (''2014 Fixed Income Guidance Update'').

[63] *See, e.g.,* 2014 Fixed Income Guidance Update, *supra* note 62; Office of Compliance Inspections and Examinations, National Exam Program 2015 Examination Priorities, *available at http://www.sec.gov/about/offices/ocie/national-examination-program-priorities-2015.pdf* (''National Exam Program 2015 Examination Priorities'') (''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.''); Office of Compliance Inspections and Examinations, National Exam Program 2014 Examination Priorities, *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.'').

[64] DERA Study, *supra* note 39, at pp. 7–8. 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.

the end of 2011 to the end of 2014.[65] While growth in alternative mutual funds and ETFs has slowed over the past year, a rising interest rate environment could cause inflows to these funds to increase once again, as investors look to reduce their interest rate risk and/or increase income by investing in alternative strategies.[66]

Unlike alternative mutual funds and ETFs, private funds (such as hedge funds and private equity 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.[67] In addition, investor expectations of private funds' redemption rights differ from the redemption expectations of typical retail investors in open-end funds. For example, investors in private equity funds typically commit their capital for the life of the fund.[68] Hedge funds often contain ''lock-up'' provisions (in which an investor only can redeem after a specified period of time has elapsed since its initial investment), typically impose limitations on the frequency of redemptions (*e.g.,* allowing redemptions only once a quarter or once a year), and require advance notice periods for redemptions.[69] They also are often able to impose gates, suspensions of redemptions, and side pockets to manage liquidity stress. As a result these funds can, and often do, restrict investor redemption rights as the liquidity of the funds' portfolio assets declines. Data reported on Form PF show that at December 31, 2014, only 16.5% of qualifying hedge funds allowed investors to withdraw *any* of their investment in seven days or less and for almost 60% of reporting qualifying hedge funds, the liquidity of the fund's portfolio was greater than the withdrawal rights provided to investors for all time frames reported on the form.[70] As of that date, 88% of qualifying hedge funds may suspend investor withdrawals and 62% may impose gates on investor withdrawals.[71]

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, 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.[72] The findings in the DERA Study have lent further support to our focus on liquidity risk management practices in this industry segment, as the study found that alternative strategy mutual funds had cash flows that were significantly more volatile than other strategies, indicating that these funds may face higher levels of redemption risk. 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 proposed rule 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 that are discussed below.

2. Evolution of Settlement Periods and Redemption Practices

Practices relating to securities trade settlement periods and the timing of the payment of redemption proceeds to investors also have evolved considerably over the decades since the Commission last addressed liquidity needs in open-end funds.[73] Prior to the adoption of rule 15c6–1 under the Exchange Act in 1993, which established three business days (T+3) as the standard settlement timeframe for broker-dealer trades, there was no federal rule that mandated a specific settlement cycle for securities transactions.[74] Before the adoption of rule 15c6–1, trades settled on a T+5 basis based on industry practice, and 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.[75] In recent years, market participants have explored the possibility of further reducing this T+3 settlement period.[76]

[65] *Id.*

[66] *See, e.g.,* Brian Haskin, *Flows to Liquid Alts Drop in December, End 2014 Up 10%,* DailyAlts.com, (Feb. 16, 2015), *available at http://dailyalts.com/flows-liquid-alts-drop-december-end-2014-10* (''Going into 2014, investors held the view that interest rates would rise and, thus, they looked to reduce interest rate risk and/or increase income with the more flexible non-traditional bond funds. This all came to a halt as interest rates actually declined and flows to the category nearly dried up in the second half. This also impacted market neutral strategies which are often used as a substitute for fixed income portfolios.'').

[67] 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 Investment Advisers Act of 1940 (the ''Investment Advisers Act'').

[68] *See* Comment Letter of Private Equity Growth Capital Council on the FSOC Notice (Mar. 25, 2015).

[69] *See* Comment Letter of Managed Funds Association on the FSOC Notice (Mar. 25, 2015).

[70] Based on data reported in response to questions 32 and 50 of Form PF. Reports filed on Form PF are submitted by advisers registered with the Commission with at least $150 million in private fund assets under management. For a definition of which funds are treated as ''qualifying hedge funds'' for purposes of Form PF that must complete these questions, *see* General Instructions to Form PF, *available at http://www.sec.gov/about/forms/formpf.pdf.*

[71] Based on data reported in response to question 49 of Form PF.

[72] Norm Champ, former Director of the Division of Investment Management, Speech, *Remarks to the Practicing Law Institute, Private Equity Forum,* (June 30, 2014), *available at http://www.sec.gov/News/Speech/Detail/Speech/1370542253660.* (noting that alternative mutual funds should consider setting criteria for assessing the liquidity of a security and consider including those criteria in written policies and procedures for registered fund compliance programs under rule 38a–1 under the Act); National Exam Program 2015 Examination Priorities, *supra* note 63 (''We will continue to assess funds offering alternative investments and using alternative investment strategies, with a particular focus on: (i) leverage, liquidity, and valuation policies and practices; (ii) factors relevant to the adequacy of the funds' internal controls, including staffing, funding, and empowerment of boards, compliance personnel, and back-offices; and (iii) the manner in which such funds are marketed to investors.'').

[73] *See, e.g.,* Invesco FSOC Notice Comment Letter, *supra* note 35, at 14 (noting that it ''was not long ago that equity securities settled on a T+7 basis rather than today's T+3 standard and initiatives are underway to shorten that time to T+2'').

[74] *See* Securities Transactions Settlement, Exchange Act Release No. 33023 (Oct. 6, 1993) [58 FR 52891 (Oct. 13, 1993)] (''Securities Transactions Settlement Release'') (adopting rule 15c6–1 under the Exchange Act).

[75] *See* May 1995 Staff No-Action Letter, *supra* note 21 (noting that funds that are sold through brokers or dealers and that hold portfolio securities that do not settle within three business days ''should assess the mix of their portfolio holdings to determine whether, under normal circumstances, they will be able to facilitate compliance with the T+3 standard by brokers and dealers,'' taking into account the ''percentage of the portfolio that would settle in three days or less, the level of cash reserves, and the availability of lines of credit or interfund lending facilities.'').

[76] *See* PricewaterhouseCoopers LLP (in conjunction with the Depositary Trust Clearing Corporation (''DTCC'') Industry Steering Committee), *Shortening the Settlement Cycle: The Move to T+2* (2015), *available at http://www.ust2.com/pdfs/ssc.pdf*; DTCC, *DTCC Recommends Shortening the U.S. Trade Settlement Cycle* (Apr. 2014), *available at http://www.dtcc.com/~/media/Files/Downloads/WhitePapers/T2-Shortened-Cycle-WP.pdf*; *see also* Recommendation of the Investor Advisory Committee: Shortening the Trade Settlement Cycle in U.S. Financial Markets (Feb. 12, 2015), *available at https://www.sec.gov/spotlight/investor-advisory-committee-2012/settlement-cycle-recommendation-final.pdf. See also* Letter from Mary Jo White, Chair, SEC, to Kenneth E. Bentsen, Jr., President & CEO, Securities Industry and Financial Markets Association, and Paul Schott Stevens, President & CEO, Investment Company Institute (Sept. 16,

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.[77]

While standard settlement periods for securities trades in the 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 (an asset class that has grown in recent years) [78] invest substantial amounts of their assets in bank loans and loan participations, which typically have long settlement times compared to other investments.[79] Based on our review of fund filings, many funds that invest in these assets 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, which state that an open-end fund should invest no more than 15% of its net assets in ''illiquid'' assets.[80] However, the settlement periods associated with some bank loans and loan participations may extend beyond the period of time the fund would be required to meet shareholder redemptions, creating a potential mismatch between the timing of the receipt of cash upon sale of these assets and the payment of cash for shareholder redemptions.[81]

Overall, the evolution of the market towards shorter settlement periods—and corresponding investor expectations—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 obligations.

D. Current Regulatory Framework

1. Statutory and Regulatory Requirements

Section 22(e) of the Act provides that no open-end fund shall suspend the right of redemption or postpone the date of payment of redemption proceeds for more than seven days after tender of the security absent specified unusual circumstances.[82] This statutory requirement was enacted ''in response to abusive practices of early open-end companies that claimed that their securities were redeemable, but then instituted barriers to redemption'' to prevent net redemptions or to prevent shareholders from switching to other funds.[83] As previously discussed, in addition to the seven-day redemption requirement in section 22(e), rule 15c6–1 under the Exchange Act also impacts 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.[84] Thus, there

2015), *available at http://www.sec.gov/divisions/marketreg/chair-white-letter-to-sifma-ici-t2.pdf*; Commissioner Luis A. Aguilar, Public Statement, *The Benefits of Shortening the Securities Settlement Cycle,* (July 16, 2015), *available at http://www.sec.gov/news/statement/benefits-of-shortening-the-securities-settlement-cycle.html*; Commissioner Michael S. Piwowar and Commissioner Kara M. Stein, Public Statement, *Statement Regarding Proposals to Shorten the Trade Settlement Cycle,* (June 29, 2015), *available at http://www.sec.gov/news/statement/statement-on-proposals-to-shorten-the-trade-settlement-cycle.html.*

[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 within seven days or any shorter time disclosed in the fund's prospectus or advertising materials. *See* 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; *see also* Fidelity FSOC Notice Comment Letter, *supra* note 20, at 6 (''mutual funds normally process redemption requests by the next business day''); Nuveen FSOC Notice Comment Letter, *supra* note 45, at 9 (noting settlement periods for trades of fund portfolio securities as a relevant factor in assessing liquidity risk, particularly with securities that ''do not trade with enforceable settlement rights and tend to settle over longer settlement periods than the T+1 or T+3 periods over which mutual fund share redemptions themselves settle'').

[78] Based on staff analysis of Morningstar Direct Data, net assets of bank loan mutual funds and ETFs grew from $14.6 billion in December 2008 to $123.5 billion in December 2014.

[79] *See, e.g.,* BlackRock, Viewpoint, *Who Owns the Assets? A Closer Look at Bank Loans, High Yield Bonds and Emerging Markets Debt* (Sept. 2014) (''BlackRock, Viewpoint, Who Owns the Assets?''), *available at https://www.blackrock.com/corporate/en-fi/literature/whitepaper/viewpoint-closer-look-selected-asset-classes-sept2014.pdf* (''[T]he settlement periods for bank loans are longer than the settlement periods for fixed income securities such as high yield bonds, which typically settle in three days. This delayed settlement period may cause a potential liquidity mismatch for mutual funds offering daily liquidity, requiring fund managers to ensure that a fund has sufficient liquidity over settlement windows to meet potential redemptions.''); Comment Letter of OppenheimerFunds on the FSOC Notice (Mar. 25, 2015) (''OppenheimerFunds FSOC Notice Comment Letter'') at 3–4 (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 dedicated to bank loan funds.'').

[80] *See infra* note 92 and accompanying text. Under current Commission guidelines, a portfolio security or other asset is considered illiquid if it cannot be sold or disposed of (rather than settled) in the ordinary course of business within seven days at approximately the value at which the fund has valued the investment.

[81] Mutual funds and ETFs investing in foreign securities can also have such settlement mismatches. *See, e.g.,* Investment Company Institute, *Understanding Exchange-Traded Funds: How ETFs Work,* (Sept. 2014), at n.34, *available at https://www.ici.org/pdf/per20-05.pdf* (noting that internationally focused ETFs generally require authorized participants to post collateral ''because the timing of clearing and settlement in another country may not coincide with the T+3 settlement cycle in the United States''). There has been significant growth in emerging market funds since the year 2000. *See infra* note 664 and accompanying text.

[82] Section 22(e) 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. *See also* Letter from Douglas Scheidt, Associate Director and Chief Counsel, Division of Investment Management, SEC, to Craig S. Tyle, General Counsel, Investment Company Institute (Dec. 8, 1999) *available at http://www.sec.gov/divisions/investment/guidance/tyle120899.htm*, at n.2 and accompanying text. The Commission has rarely issued orders permitting the suspension of redemptions for periods of restricted trading or emergency circumstances but has done so 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)]; *see also, e.g.,* In the Matter of Municipal Lease Securities Fund, Inc., Investment Company Act Release No. 17245 (Nov. 29, 1989). Money market funds are able to suspend redemptions in certain limited circumstances. *See* rule 22e–3 under the Act; *see also infra* note 155 and accompanying text.

[83] 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)] at nn.16–18 and accompanying text (''Interval Fund Proposing Release'') (citing Investment Trusts and Investment Companies: Hearings on S. 3580 before a Subcomm. of the Senate Comm. on Banking and Currency, 76th Cong., 3d Sess. 291–92 (1940) (statement of David Schenker, Chief Counsel, SEC Investment Trust Study)).

[84] *See supra* notes 41–43 and accompanying text for a discussion of why this calculation method is permitted under rule 22c–1 and rule 2a–4.

are a number of statutory and regulatory provisions that must be considered in assessing a fund's ability to meet redemptions and mitigate potential dilution of shareholders' interests.

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 invest in a minimum level of liquid assets.[85] 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).[86] 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 fund's redemption obligations.[87] As noted in this guidance, a fund experiencing net outflows due to shifts in market sentiment may wish to consider reducing its illiquid asset holdings to maintain adequate liquidity.[88] Similarly, a fund may need to determine whether it is appropriate to take certain actions when it has determined that a previously liquid holding has become illiquid due to changed circumstances.[89]

Open-end funds also are required by rule 38a–1 under the Act to adopt and implement written policies and procedures reasonably designed to prevent violations of the federal securities laws. A fund's compliance policies and procedures should be appropriately tailored to reflect each fund's particular compliance risks.[90] An open-end fund holding a significant portion of its assets in securities with long settlement periods or with infrequent trading, for instance, may be subject to relatively greater liquidity risks than other open-end funds, and should appropriately tailor its policies and procedures to comply with its redemption obligations.[91]

2. 15% Guideline

In addition to the Commission's historical statements regarding the importance of adequate liquidity in open-end fund portfolios pursuant to section 22(e) of the Act, long-standing Commission guidelines generally limit an open-end fund's aggregate holdings of ''illiquid assets'' to 15% of the fund's net assets (the ''15% guideline'').[92] 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.[93] 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, securities purchased in an initial public offering, and certain other privately placed or other restricted securities[94] as well as certain

[85] 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 recently adopted amendments to rule 2a–7 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. 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'').

[86] 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.''); 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).

[87] Guidelines Release, *supra* note 4, at section I (''[A] mutual fund must compute its net asset value each business day and give purchase and redemption orders the price next computed after receipt of an order. Moreover, most mutual funds allow shareholders easily to exchange their fund shares for shares of another mutual fund managed by the same investment adviser, in transactions which generally can include only nominal costs. Shareholders thus easily may move their money among equity, income, and money market funds as they choose, increasing the need for liquidity of mutual fund assets.''); *see also* Restricted Securities Release, *supra* note 86 (discussing valuation difficulties that may be associated with restricted securities).

[88] Guidelines Release, *supra* note 4.

[89] Rule 144A Release, *supra* note 86, at n.61.

[90] In the rule 38a–1 adopting release, the Commission stated that funds should adopt policies and procedures regarding the pricing of portfolio securities and fund shares. *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 identifies ''portfolio management processes'' as an issue that should be covered in the compliance policies and procedures of a fund or its adviser and indicates 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).

[91] *See supra* note 81 and accompanying text.

[92] Guidelines Release, *supra* note 4, at section III. (''If an open-end company holds a 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. An illiquid asset is any asset which may not be sold or disposed of in the ordinary course of business within seven days at approximately the value at which the mutual fund has valued the investment.''). The Guidelines Release modified prior Commission guidance that set a 10% limit on illiquid assets for open-end funds. *See* Restricted Securities Release, *supra* note 86.

While the wording of the Guidelines Release limits *holdings* of illiquid assets above 15% of a fund's net assets, the Guidelines Release cites a prior Commission statement regarding the ''prudent limit on mutual fund holdings of illiquid securities'' that limits a fund from *acquiring* any illiquid asset if, immediately after such acquisition, the fund's holdings of illiquid assets would exceed a certain percentage of the fund's net assets. *See* Guidelines Release, *supra* note 4, at n.8 (citing Restricted Securities Release, *supra* note 86). The latter interpretation (that is, the interpretation that the 15% standard is a limit on the acquisition of illiquid assets, not a limit on the holdings of illiquid assets) is consistent with approaches that Congress and the Commission have historically taken in other parts of the Investment Company Act and the rules thereunder. *See infra* note 348.

[93] Guidelines Release, *supra* note 4; *see also* ETF Proposing Release, *supra* note 9; 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)]; Rule 144A Release, *supra* note 86.

[94] *See* Restricted Securities Release, *supra* note 86. Securities offered pursuant to rule 144A under the Securities Act may be considered liquid depending on certain factors. *See* Rule 144A Release, *supra* note 86. The Commission stated 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'' and noted that the board should consider the unregistered nature of a rule 144A security as one of the factors it evaluates in determining its liquidity. *Id.* The Division of Investment Management has also stated that an open-end fund's board of directors may determine that an issue of commercial paper in reliance on

instruments or transactions not maturing in seven days or less, including term repurchase agreements.[95] 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, but rather has provided ''examples of factors that would be reasonable for a board of directors to take into account with respect to a rule 144A security (but which would not necessarily be determinative).'' [96] 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.[97]

3. Overview of Current Practices

Over the last two years, Commission staff has had the occasion to observe through a variety of different events the current liquidity risk management practices at a cross-section of different 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, classifying, and managing the liquidity of their portfolio assets.[98]

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).[99] 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 open-end funds determine their ability to meet redemption requests in various market conditions within the disclosed period for payment of redemption proceeds.

Funds observed by the staff that have implemented procedures for assessing and classifying the liquidity of their portfolio assets also often have developed controls to manage fund portfolio liquidity risk and the risk of changing levels of shareholder redemptions, such as holding certain amounts of the fund's portfolio in highly liquid assets, setting minimum cash reserves, and establishing committed back-up lines of credit or interfund lending facilities.[100] A few of the funds observed by staff conduct stress testing relating to the availability of liquid assets to cover possible levels of redemptions.[101] Some of these funds' advisers also have periodic discussions with their boards of directors about how the fund approaches liquidity risk management and what emerging risks they are observing relating to liquidity risk. We have 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 the risk profile of the fund or materially affecting the fund's 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.[102] 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.

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

section 4(a)(2) of the Securities Act is liquid, even if it may not be resold under rule 144A in certain circumstances. *Merrill Lynch Money Markets Inc.,* SEC Staff No-Action Letter (Jan. 14, 1994).

[95] *See* Interval Fund Proposing Release, *supra* note 83.

[96] *See* Rule 144A Release, *supra* note 86.

[97] *Id.*

[98] There are varying degrees of formality in the adoption and implementation of these procedures.

[99] *See* 2014 Fixed Income Guidance Update, *supra* note 62 (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 infra* note 151 and accompanying text.

[100] Press coverage has detailed steps some funds and their advisers have taken to manage liquidity in light of changing market conditions as well. *See, e.g.,* Jessica Toonkel, *Fund Boards, Management Go on High Alert Around Bond Liquidity,* Reuters (Nov. 24, 2014), *available at http://www.reuters.com/article/2014/11/24/us-funds-bondholders-alert-idUSKCN0J80AD20141124* (reporting that investment advisers ''have been testing their funds against various market scenarios, building cushions of cash, shorter-duration bonds and other liquid securities, and regularly discussing risks with their boards''); Katy Burne, *Bond Funds Loan Up on Cash,* The Wall Street Journal (Nov. 30, 2014), *available at http://www.wsj.com/articles/bond-funds-load-up-on-cash-1417394534* (discussing cash buffers and use of certain derivatives to manage liquidity concerns); Cordell Eddings, *Bond Liquidity Risk in $3.5 Trillion Funds Defused by Cash,* Bloomberg (Aug. 18, 2014), *available at http://www.bloomberg.com/news/articles/2014-08-17/bond-liquidity-risk-in-3-5-trillion-funds-defused-by-cash-pile* (discussing cash holdings in U.S. fixed income funds that are at historically significant levels).

[101] *See, e.g.,* Nuveen FSOC Notice Comment Letter, *supra* note 45, at 12 (''We stress test a fund's ability to meet redemptions over a one-month period in a badly stressed market by hypothetically assuming a large increase in net redemptions, cash outflows for derivatives cash collateral and cash outlay requirements imposed by various leverage structures, and comparing the level of cash needed to meet that hypothetical scenario against the amount of cash the fund could reasonably expect to raise from various sources (including selling assets in a hypothetically stressed market or drawing on a credit facility) in that same time frame.''); ICI FSOC Notice Comment Letter, *supra* note 16, at 24 (stating that some asset managers conduct forms of stress testing to determine the impact of certain changes on portfolio liquidity).

[102] *See, e.g.,* BlackRock FSOC Notice Comment Letter, at 6 (stating that among several overarching principles that provide the foundation for a prudent market liquidity risk management framework for collective investment vehicles is having ''a risk management function that is independent from portfolio management, with direct reporting lines to senior leadership and a regular role in communication with the asset manager's board of directors'').

proposed framework is meant to address.[103]

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 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 Proposal Overview

Against this background, today we are proposing a multi-layered set of reforms designed to promote effective liquidity risk management throughout the open-end fund industry and thereby reduce the risk that funds will not be able to meet redemption obligations and mitigate potential dilution of the interests of fund shareholders in accordance with section 22(e) of, and rule 22c–1 under, the Investment Company Act. The proposed amendments also seek to enhance disclosure regarding fund liquidity and redemption practices. In addition, these proposed reforms are intended to address the liquidity-related developments in the open-end fund industry discussed above and are a part of a broader set of initiatives to address the impact of open-end fund investment activities on investors and the financial markets, and the risks associated with the increasingly complex portfolio composition and operations of the asset management industry.[104]

First, we are proposing new rule 22e–4, which would require each registered open-end fund, including open-end ETFs but not including money market funds, to establish a liquidity risk management program. The proposed rule would require a fund's liquidity risk management program to incorporate certain specified elements. One primary element of this program is a new requirement for funds to classify and monitor the liquidity of portfolio assets, reflecting that liquidity may be viewed as falling on a spectrum rather than a binary conclusion that an asset is either ''liquid'' or ''illiquid.'' Another principal feature is a new requirement that funds establish a minimum amount of their assets that would be held in cash and assets that the fund believes are convertible to cash within three business days at a price that does not materially affect the value of that asset immediately prior to the sale.[105] This proposed requirement is aimed at decreasing the likelihood that funds would be unable to meet their redemption obligations and promote effective liquidity risk management industry-wide. We also anticipate that the proposed program requirement would result in investor protection benefits, as improved liquidity risk management could decrease the chance that a fund could meet its redemption obligations only with material effects on the fund's NAV or changes to the fund's risk profile.

Even with improved liquidity risk management, circumstances could arise in which shareholder purchase and redemption activity could dilute the value of existing shareholders' interests in the fund. For this reason, we are also proposing amendments to rule 22c–1 under the Act to permit a fund (except a money market fund or ETF) to use ''swing pricing,'' the process of adjusting a fund's NAV to effectively pass on to purchasing or redeeming shareholders more of the costs stemming from their trading activity. Swing pricing could protect existing shareholders from dilution associated with such purchase and redemption activity and could be another tool to manage liquidity risks. Pooled investment vehicles in certain foreign jurisdictions currently use various forms of swing pricing to mitigate shareholder dilution associated with other shareholders' capital activity, and we believe swing pricing could be an effective tool to assist U.S. registered funds in mitigating potential shareholder dilution.

Finally, we are proposing disclosure- and reporting-related amendments to provide greater transparency with respect to funds' liquidity risks and risk management. Specifically, we are proposing amendments to Form N–1A to require disclosure regarding swing pricing, if applicable, and to improve disclosure regarding how funds meet redemptions of fund shares. We also are proposing amendments to proposed Form N–PORT and proposed Form N–CEN to provide detailed information, both to the Commission and the public, regarding a fund's liquidity-related holdings data and liquidity risk management practices. We note that while these disclosure- and reporting-related amendments are primarily applicable to mutual funds that are not money market funds, as well as ETFs, certain of the proposed amendments are applicable to money market funds as well.

We anticipate that these proposed requirements will facilitate the Commission's risk monitoring efforts by providing greater transparency regarding the liquidity characteristics of fund portfolio holdings, as well as to monitor and assess compliance with rule 22e–4 if adopted. While proposed Form N–PORT and proposed Form N–CEN are primarily designed to assist the Commission, we believe that the proposed requirements also would increase investor understanding of particular funds' liquidity-related risks and redemption policies, which in turn would assist investors in making investment choices that better match their risk tolerances.[106] We note that many investors, particularly institutional investors, as well as academic researchers, financial analysts, and economic research firms, could use the information regarding a fund's liquidity-related holdings data and liquidity risk management practices reported on Form N–PORT to evaluate fund portfolios.[107] Finally, we are

[103] *See infra* section III.C.4 for a discussion of the limitations of the 15% guideline.

[104] Such other initiatives include modernizing investment company reporting and disclosure, addressing the risks of derivatives use, and requiring large investment companies and investment advisers to engage in annual stress tests as required by section 165(i) of the Dodd-Frank Wall Street Reform and Consumer Protection Act (''Dodd-Frank Act''). *See* Chair Mary Jo White, Speech, *Remarks to the New York Times DealBook Opportunities for Tomorrow Conference* (Dec. 11, 2014), *available at http://www.sec.gov/News/Speech/Detail/Speech/1370543677722*; Investment Company Reporting Modernization, Investment Company Act Release No. 31610 (May 20, 2015) [80 FR 33590 (June 12, 2015)] (''Investment Company Reporting Modernization Release'').

[105] Proposed rule 22e–4(a)(8) defines ''Three-Day Liquid Asset'' to mean ''any cash held by a fund and any position of a fund in an asset (or portion of the fund's position in an asset) that the fund believes is convertible into cash within three business days at a price that does not materially affect the value of that asset immediately prior to sale. In determining whether a position or portion of a position in an asset is a three-day liquid asset, a fund must take into account the factors set forth in paragraph (b)(2)(ii) of this section, to the extent applicable.'' Proposed rule 22e–4(a)(9) defines ''Three-Day Liquid Asset Minimum'' to mean ''the percentage of the fund's net assets to be invested in three-day liquid assets,'' in accordance with rule 22e–4(b)(2)(iv)(A) and (C).

[106] *See, e.g.,* Comment Letter of Markit on the FSOC Notice (Mar. 25, 2015), at 2 (''we 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'').

[107] *See infra* section IV.C.3.

proposing to require that ETFs report on proposed Form N–CEN information regarding any requirement to post collateral by authorized participants that are purchasing or redeeming shares. Such collateral requirements could affect authorized participants' capacity and willingness to serve as authorized participants for ETFs, and, in turn, the effective functioning of the ETF's arbitrage mechanism and the ETF shares trading at a market price that approximates the NAV of the ETF.

III. Discussion

A. Program Requirements and Scope of Proposed Rule 22e–4

Today we are proposing new rule 22e–4 under the Investment Company Act, which would require that each registered open-end management investment company, including open-end ETFs but not including money market funds,[108] establish a written liquidity risk management program. We expect that the proposed rule 22e–4 program requirements would reduce the risk that funds will be unable to timely meet their redemption obligations under section 22(e) of the Investment Company Act and other statutory and regulatory provisions,[109] mitigate potential investor dilution, and provide for more effective liquidity risk management among funds. We believe that this, in turn, would result in significant investor protection benefits and enhance the fair and orderly operation of the markets.[110]

1. Proposed Program Elements

Proposed rule 22e–4 would require each fund to adopt and implement a written liquidity risk management program that is designed to assess and manage the fund's liquidity risk.[111] Under the proposed rule, liquidity risk would be defined as 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 net asset value.[112] Proposed rule 22e–4 specifies that a fund's liquidity risk management program shall include the following required program elements: (i) classification, and ongoing review of the classification, of the liquidity of each of the fund's positions in a portfolio asset (or portions of a position in a particular asset); (ii) assessment and periodic review of the fund's liquidity risk; and (iii) management of the fund's liquidity risk, including the investment of a set minimum portion of net assets in assets that the fund believes are convertible to cash within three business days at a price that does not materially affect the value of that asset immediately prior to sale.[113] Proposed rule 22e–4 incorporates specific requirements for each of these program elements, and these requirements are discussed in detail below. A fund may, as it determines appropriate, expand its liquidity risk management procedures and related disclosure concerning liquidity risk beyond the required program elements, and should consider doing so whenever it would be necessary to ensure effective liquidity management. A fund would be required to set and invest a prescribed minimum portion of net assets in assets that are cash or that the fund believes are convertible to cash within three business days at a price that does not materially affect the value of that asset immediately prior to the sale, and also would be required to classify the liquidity of the fund's portfolio positions. In other respects, the proposed program requirements are more principles-based and would permit each fund to tailor its liquidity risk management program to the fund's particular risks and circumstances.

The requirements of proposed rule 22e–4, including the liquidity risk assessment requirements, are applicable to all open-end funds, which term is defined to include each separate series of a registered open-end investment company.[114] Therefore, each series of a fund would be responsible for developing a liquidity risk management program tailored to its own liquidity risk in order to comply with the proposed rule. We anticipate that liquidity risk could differ—sometimes significantly—among the series of an investment company, based on variations in each of the proposed liquidity risk assessment factors required to be considered. Under these circumstances, it would be appropriate for each series' liquidity risk management program to incorporate risk assessment and risk management elements that are distinct from other series' programs. However, to the extent that the series of an investment company are substantially similar in terms of cash flow patterns, investment strategy, portfolio liquidity, and the other factors a fund would be required to consider in assessing its liquidity risk,[115] it may be appropriate for each series to adopt the same or a similar liquidity risk management program.

Proposed rule 22e–4 includes board oversight provisions related to the liquidity risk management program requirement. Specifically, a fund's board would be required to approve the fund's liquidity risk management program, any material changes to the program, and the fund's designation of the fund's investment adviser or officers as responsible for administering the fund's liquidity risk management program (which cannot be solely portfolio managers of the fund).[116] A fund also would be required to disclose certain information about its liquidity risk and risk management in its registration statement,[117] as well as on proposed Forms N–CEN and N–PORT.[118]

2. Scope of Proposed Rule 22e–4 and Related Disclosure and Reporting Requirements

Proposed rule 22e–4, as well as the related disclosure and reporting requirements, would apply to all registered open-end funds (including

108 Under proposed rule 22e–4(a)(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.''

109 In addition to the seven-day redemption requirement in section 22(e), rule 15c6–1 under the Exchange Act also impacts 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. *See supra* note 21 and accompanying text. Furthermore, funds' 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. *See supra* note 77 and accompanying text.

110 *See infra* section IV.C.1.

111 Proposed rule 22e–4(b)(1).

112 Proposed rule 22e–4(a)(7). This definition is similar to the definition of ''liquidity risk'' that the Commission has used in other contexts, modified as appropriate to apply to the specific liquidity needs of investment companies. *See* Financial Responsibility Rules for Broker-Dealers, Exchange Act Release No. 70072 (July 30, 2013) [78 FR 51823 (Aug. 21, 2013)], at n.291 (''Generally, funding liquidity risk is the risk that a firm will not be able to meet cash demands as they become due and asset liquidity risk is the risk that an asset will not be able to be sold quickly at its market value.'').

This proposed definition contemplates that a fund consider both expected requests to redeem, as well as requests to redeem that may not be expected, but are reasonably foreseeable. *See infra* section III.C.

113 Proposed rule 22e–4(b)(1), (2).

114 *See* proposed rule 22e–4(a)(5).

115 *See infra* section III.C.1.

116 Proposed rule 22e–4(b)(3).

117 Proposed Items 11(c)(7)–(8) of Form N–1A.

118 Proposed Items B.7, C.7, and C.13 of proposed Form N–PORT; proposed Item 44 of proposed Form N–CEN.

open-end ETFs) other than money market funds. The liquidity risk management program required under proposed rule 22e–4 would reduce the risk that funds would be unable to meet shareholder redemptions in light of their statutory and regulatory requirements for meeting redemption requests, as well as any disclosure made to investors regarding payment of redemption proceeds, without materially affecting the fund's NAV.[119]

Although we recognize that various fund characteristics, such as a fund's investment strategy, ownership concentration, redemption policies, and other similar factors, could make a fund relatively more prone to liquidity risk,[120] we believe that all registered open-end funds (other than money market funds), not only those whose investment strategies create greater liquidity risk, should fall within the scope of proposed rule 22e–4. While we are not proposing different liquidity risk management program requirements for different types of funds, the proposed rule is designed to result in robust liquidity risk management programs whose scope, and related costs and burdens, are adequately tailored to manage the liquidity risk faced by a particular fund. The proposed rule requires each fund to assess its liquidity risk periodically, after consideration of certain enumerated factors, and to adopt policies and procedures for managing its liquidity risk based on this assessment.[121] For example, a fund whose ownership is relatively concentrated, and that has an investment strategy requiring it to hold a significant portion of unlisted securities that do not trade frequently, would likely establish a different liquidity risk management program than a fund whose portfolio assets consist mostly of exchange-traded securities with a very high average daily trading volume.[122]

We are not proposing to exclude any particular subset of open-end management investment companies other than money market funds from the scope of proposed rule 22e–4, because even funds with investment strategies that historically have entailed relatively little liquidity risk could experience liquidity stresses in certain environments. For example, although most equity securities are generally understood to be more liquid than fixed income securities, investments in certain types of equities involve some degree of liquidity risk.[123] Also, unexpected market events could cause the liquidity of assets that typically are more liquid to decrease.[124] Furthermore, different types of funds within the same broad investment strategy may demonstrate different levels of liquidity (and thus, presumably, different levels of liquidity risk).[125] We are also not proposing to provide different liquidity requirements for relatively small funds because, as discussed in the Economic Analysis section below, smaller funds tend to demonstrate relatively high flow volatility (and thus possibly greater liquidity risk).[126]

Like traditional open-end funds, the Commission believes that open-end ETFs could experience liquidity risk, and thus proposes to include open-end ETFs within the scope of rule 22e–4.[127] As discussed above, the liquidity of an ETF's portfolio securities is a factor that contributes to the effective functioning of the ETF's arbitrage mechanism and the ETF shares trading at a price that is at or close to the NAV of the ETF.[128] In addition, ETFs that permit authorized participants to redeem in cash, rather than in kind, and ETFs that typically redeem in cash, like traditional mutual funds, would need to ensure that they have sufficient portfolio liquidity (in conjunction with any other liquidity sources) to meet shareholder redemptions in cash.[129] And especially in times of declining market liquidity, the liquidity of an ETF may be limited by the liquidity of the market for the ETF's underlying securities.[130] As discussed below, we believe that the liquidity-related concerns relevant to ETFs structured as unit investment trusts (''UITs'') are different from those relevant to open-end ETFs, and thus we are proposing not to include ETFs structured as UITs within the scope of proposed rule 22e–4.[131]

The scope of proposed rule 22e–4 does not include closed-end investment companies (''closed-end funds''). Closed-end funds do not issue redeemable securities and are not subject to section 22(e) of the Investment Company Act.[132] Closed-end funds' liquidity needs are consequently different from those of open-end funds. This has been acknowledged previously by the Commission; for example, the 15% guideline is applicable only to open-end funds and not closed-end funds.[133] Closed-end funds that elect to repurchase their shares at periodic intervals under Investment Company Act rule 23c–3 (''closed-end interval funds'') are subject to certain liquidity standards in order to ensure that they can complete repurchase offers, and must adopt written procedures reasonably designed to ensure that their portfolio assets are sufficiently liquid to

[119] *See supra* notes 18–22 and accompanying text (discussing funds' redemption obligations under section 22(e) of the Investment Company Act (requiring funds to make payment to shareholders for securities tendered for redemption within seven days of their tender), as well as circumstances in which funds must satisfy redemption requests within a period shorter than seven days (because they are sold through broker dealers, which are subject to rule 15c6–1 under the Exchange Act (establishing a three-business day (T+3) settlement period for security trades effected by a broker or a dealer), and/or because they have disclosed to investors that they will meet redemption requests within a period shorter than seven days).

[120] *See infra* section III.C.1.

[121] Proposed rule 22e–4(b)(2)(iii)–(iv).

[122] *See infra* section III.C.1.

[123] For example, certain foreign securities (equities as well as fixed income securities) may entail very long settlement times and trading limitations. *See infra* note 197. Also, certain equity securities, such as microcap equity securities, trade relatively infrequently, which in turn could diminish their liquidity. *See* Securities and Exchange Commission, Office of Investor Education and Advocacy, ''Microcap Stock: A Guide for Investors'', *available at http://www.sec.gov/investor/pubs/microcapstock.htm.*

[124] For example, during the ''Flash Crash'' of October 15, 2014, one of the most volatile trading days since 2008, yield decreases on 10-year Treasuries resulted in certain fixed income market participants turning off automatic pricing on electronic trading platforms on account of fears that the market was moving too quickly for automatic prices to keep up with the market. This, in turn, slowed the pace of trading in U.S. Treasuries, temporarily decreasing their liquidity. *See, e.g.,* Joint Staff Report: The U.S. Treasury Market on October 15, 2014 (July 13, 2015), *available at http://www.treasury.gov/press-center/press-releases/Documents/Joint_Staff_Report_Treasury_10-15-2015.pdf* (''Flash Crash Staff Report'') (report of staff findings from the U.S. Department of the Treasury, the Board of Governors of the Federal Reserve System, the Federal Reserve Bank of New York, the U.S. Securities and Exchange Commission, and the U.S. Commodity Futures Trading Commission discussing in depth, among other things, the strains in liquidity conditions during the events of October 15).

[125] *See infra* note 627 and accompanying text.

[126] *See infra* note 727 and accompanying text.

[127] *See supra* notes 23–30 and accompanying text.

[128] *See supra* notes 25–29 and accompanying text. The Commission's 2015 Request for Comment on Exchange-Traded Products requests comment on the effectiveness and efficiency of the arbitrage mechanism for exchange-traded products (including ETFs) whose portfolio securities are relatively less liquid. *See* 2015 ETP Request for Comment, *supra* note 11, at Question #15.

[129] *See supra* note 30 and accompanying text. Based on the same consideration, we propose to include ETMFs within the scope of rule 22e–4. *See supra* note 31 and accompanying text.

[130] *See supra* note 24 and accompanying text.

[131] *See infra* note 144 and accompanying paragraph. We note that the vast majority of ETFs are organized as open-end funds. *See* ETF Proposing Release, *supra* note 9.

[132] *See* sections 22(e), 2(a)(32) (defining ''redeemable security'') and 5(a)(1)–(2) (defining ''open-end company'' and ''closed-end company'') of the Act.

[133] *See* Guidelines Release, *supra* note 4; *see also* Repurchase Offers by Closed-End Management Investment Companies, Investment Company Act Release No. 19399 (Apr. 7, 1993) [58 FR 19330 (Apr. 14, 1993)] (''Repurchase Offers Release''), at n.7 and accompanying text.

comply with their fundamental policies on repurchases.[134] However, other closed-end funds are subject to no explicit liquidity requirements under the 1940 Act.[135] Because closed-end funds, with the exception of closed-end interval funds, are not subject to specific statutory or regulatory liquidity requirements, we are not proposing to include closed-end funds within the scope of rule 22e–4. Although closed-end interval funds do have to comply with certain liquidity standards and therefore must manage their liquidity risk, we believe that the written liquidity procedures they are required to adopt under rule 23c–3(b)(10)(iii) are adequate given these funds' more limited liquidity needs. Also, because closed-end interval funds do not permit shareholders to redeem their shares each day, they may be better able to structure their portfolios to anticipate their liquidity needs than open-end funds. For these reasons, we are not including these funds within the proposed scope of rule 22e–4.

UITs, including ETFs structured as UITs, also would not be covered within the scope of proposed rule 22e–4. A UIT issues redeemable securities, like a traditional open-end fund, which represent undivided interests in an essentially fixed portfolio of securities.[136] As units of a UIT series[137] are redeemable, UITs are subject to the requirements of section 22(e).[138]

We are not proposing to include UITs within the scope of the proposed rule for a number of reasons. First, we understand based on staff analysis that approximately 75% of the assets held in UITs currently serve as separate account vehicles that are used to fund variable annuity and variable life insurance products.[139] These UITs essentially function as pass-through vehicles, investing principally in securities of one or more open-end investment companies, which as discussed above would be subject to the scope of proposed rule 22e–4.[140] Thus, we believe that the liquidity risk of these UITs would be even more limited if proposed rule 22e–4 were adopted, because their underlying holdings are funds that would be required to adopt their own liquidity risk management programs under the proposed rule.

Second, UITs are not actively managed, and their portfolios are not actively traded. A UIT buys a relatively fixed portfolio of securities, and generally holds them with little change for the life of the UIT.[141] A UIT does not have a board of directors, corporate officers, or an investment adviser to render advice during the life of the trust.[142] Accordingly, the provisions of proposed rule 22e–4, which require a fund's board to approve and oversee a liquidity risk management program and the fund's adviser or officers to administer the program, are thus inapposite to the management structure of a UIT.[143]

Finally, we also are not including UIT ETFs within the scope of proposed rule 22e–4 because UIT ETFs generally track established and widely recognized indices.[144] Moreover, they fully replicate their underlying indices including with respect to their basket assets. Therefore, we do not view a liquidity risk management program as necessary or beneficial for UIT ETFs.

We also propose to exclude from the scope of rule 22e–4 all money market funds subject to the requirements of rule 2a–7 under the Investment Company Act. Money market funds are subject to extensive requirements concerning the liquidity of their portfolio assets. As described below, these requirements are more stringent than the liquidity-related requirements applicable to funds that are not money market funds (and that would be applicable to funds that are not money market funds under proposed rule 22e–4), on account of the historical redemption patterns of money market fund investors and the assets held by money market funds.[145] Rule 2a–7 includes a general portfolio liquidity standard, which requires that each money market fund hold securities that are sufficiently liquid to meet reasonably foreseeable shareholder redemptions in light of its obligations under section 22(e) of the Act and any commitments the fund has made to shareholders.[146] Money market funds are also subject to a specific limitation on the acquisition of illiquid securities. Namely, a money market fund cannot acquire illiquid securities if, immediately after the acquisition, the fund would have invested more than 5% of its total assets in illiquid securities.[147] This limit on illiquid asset holdings is more stringent than the corollary 15% guideline for open-end funds that are not money market funds, which as discussed above, limits a fund's aggregate holdings of illiquid assets to 15% of the fund's net assets.[148] In addition to the 5% limit on money market funds' illiquid asset holdings, all taxable money market funds must invest at least 10% of their total assets in ''daily liquid assets,'' [149] and all money

[134] Specifically, rule 23c–3 requires that: (i) A specified percentage of the investment company's portfolio consists of assets that can be sold or disposed of in the ordinary course of business, at approximately the price at which the investment company has valued the investment, within the period within which the investment company pays repurchase proceeds; and (ii) the investment company's board of directors adopts written procedures reasonably designed, taking into account current market conditions and the company's investment objectives, to ensure that the company's portfolio assets are sufficiently liquid so that the company can comply with its fundamental policy on repurchases. *See* rule 23c–3(b)(10)(i), (iii).

Based on staff analysis, there were 26 closed-end interval funds, representing approximately $5.7 billion in assets, in 2014.

[135] *See* Interval Fund Proposing Release, *supra* note 83, at text following n.35 (''Closed-end companies are not subject to a liquidity standard.'').

[136] Securities and Exchange Commission, Office of Investor Education and Advocacy, Unit Investment Trusts (UITs), *available at http://www.sec.gov/answers/uit.htm* (''UIT Answers'').

[137] UITs typically consist of a number of consecutive series, with each series representing units in a specific, separate portfolio of securities. Unlike traditional open-end investment companies, UITs have no corporate management structure, and their portfolios are not managed.

[138] With respect to UITs that are not ETFs, and that do not serve as separate account vehicles that are used to fund variable annuity and variable life insurance products, sponsors have historically maintained a secondary market in UIT units, rather than having the series liquidate portfolio securities to meet redemptions, because a large number of redemptions could necessitate premature termination of the series. *See* Form N–7 for Registration of Unit Investment Trusts under the Securities Act of 1933 and the Investment Company Act of 1940, Investment Company Act Release No. 15612 (Mar. 9, 1987) [52 FR 8268 (Mar. 17, 1987)] (''Form N–7 Re-Proposing Release''), at text following n.1; *see also* UIT Answers, *supra* note 136.

At present, however, the majority of UIT assets are attributable to separate account vehicles that are used to fund variable annuity and variable life insurance products, and the sponsors of these UITs do not typically maintain a secondary market in UIT units. *See infra* note 139 and accompanying text.

[139] Based on data as of December 2014.

[140] Jeffrey K. Dellinger, The Handbook of Variable Income Annuities 448–450 (2006).

[141] *See* UIT Answers, *supra* note 136.

[142] *See id.* Because of this lack of management, some UIT trust documents provide that its administrator must redeem a pro rata share of the trust's holdings when an investor redeems from a UIT, subject to practical constraints such as securities with transfer restrictions.

[143] *See infra* section III.D.

[144] Based on information from Morningstar as of July 22, 2015, the following ETFs are structured as UITs, and each ETF tracks the index in its name unless otherwise noted: SPDR Dow Jones Industrial Average ETF Trust, SPDR S&P 500 ETF Trust, SPDR S&P Midcap 400 ETF Trust, Invesco Powershares QQQ Trust Series 1 (which tracks the NASDAQ 100 Index), and the Invesco BLDRS Index Funds Trust (which has ETFs tracking the BNY Mellon Asia 50 ADR Index, the BNY Mellon Developed Markets 100 ADR Index, the BNY Mellon Emerging Markets 50 ADR Index, and the BNY Mellon Europe Select ADR Index).

[145] *See infra* notes 722–725 and accompanying text.

[146] Rule 2a–7(d)(4).

[147] Rule 2a–7(d)(4)(i).

[148] *See supra* section II.D.2.

[149] Rule 2a–7(d)(4)(ii).

market funds must invest at least 30% of their total assets in ''weekly liquid assets.'' [150] There is no current or proposed corollary requirement for open-end funds that are not money market funds to invest certain portions of their assets in daily liquid assets or weekly liquid assets.

Money market funds are also subject to liquidity-related disclosure and reporting requirements.[151] These disclosure and reporting requirements do not currently extend to funds that are not money market funds, although under the proposed amendments to Form N–PORT, funds that are not money market funds would be required to report information about each portfolio asset's liquidity classification under rule 22e–4 and whether it is a 15% standard asset.[152]

Money market funds also have certain tools at their disposal to manage heavy redemptions that are not available to other open-end funds.[153] A money market fund is permitted to impose a liquidity fee on redemptions or temporarily suspend redemptions if its weekly liquid assets fall below 30% of its total assets and the fund's board determines that imposing a fee or gate is in the fund's best interests; if a fund's weekly liquid asset falls below 10% of total assets, the fund is required to impose a liquidity fee on redemptions unless the fund's board determines that imposing such a fee would not be in the fund's best interests.[154] Additionally, rule 22e–3 permits a money market fund to suspend redemptions and postpone payment of redemption proceeds in an orderly liquidation of the fund if, subject to other requirements, the fund's board makes certain findings.[155] Because money market funds are required to maintain a liquidity risk management program, we propose that these funds be excluded from the scope of rule 22e–4.

3. Request for Comment

While we request detailed comment on each of the specific elements of proposed rule 22e–4 below, here we request comment on the general program requirement of the proposed rule, as well as the extent to which the proposed program requirement would promote effective liquidity risk management.

- As proposed, rule 22e–4 would require that a fund's liquidity risk management program include certain general elements. Do commenters believe that the general elements of the program would enhance a fund's ability to assess and manage its liquidity risk? Are there any elements that should be excluded from the program requirement, or are there any additional elements that should be included in the program requirement? Should any of the proposed elements be modified? Do commenters believe that the program would enhance funds' management of liquidity risk better than they already do in practice? Do commenters believe that the program would materially strengthen a fund's ability to meet its redemption obligations and would materially reduce potential dilution? Should the rule 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?
- Should the Commission be more prescriptive in requiring a fund to adopt certain specific policies and procedures for classifying and monitoring the liquidity of portfolio assets, assessing and periodically reviewing liquidity risk, and/or managing the fund's liquidity risk, beyond the proposed requirements of rule 22e–4? If so, what other procedures should the Commission require? Are there operational challenges associated with any of the other procedures the Commission could require? To what extent do funds currently have policies and procedures resembling the proposed program requirements? Have funds' current policies and procedures proven effective at managing liquidity risk, and how have they evolved in recent years? Are these policies and procedures primarily overseen by a fund's chief compliance officer, chief risk officer (if any), or someone else?

We also request comment on the scope of proposed rule 22e–4.

- Do commenters agree that all open-end funds, including open-end ETFs but excluding money market funds, should be subject to the program requirement of the proposed rule? If not, why not? Do commenters agree that the proposed program requirement gives enough flexibility for a fund to adopt a program whose scope, and related costs and benefits, are adequately tailored for that fund to manage its actual and potential liquidity risk?
- Should certain funds or types of funds be excluded from the proposed program requirement, or subject to a different or less stringent requirement, because their investment strategies, ownership concentrations, redemption policies, or some other factor makes them less prone to liquidity risk? If so, which funds or types of funds, and why? Should smaller funds and smaller fund complexes be excluded from the proposed program requirement, or subject to a different or less stringent requirement? Why or why not? How should we distinguish between funds that should be subject to liquidity risk management program requirements and those that should not? Conversely, are there particular types of funds (or investment strategies) that are subject to heightened liquidity risk and should be subject to more prescriptive or stringent requirements under a liquidity risk management program or otherwise? If so, what types of funds should be considered to have higher liquidity risk and why? Can these types of funds be easily categorized or defined? What enhanced liquidity risk management program requirements should be considered for such funds and why? Are there any types of funds (or investment strategies) with such limited liquidity that we should consider limiting their ability to be structured as open-end funds?

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[150] Rule 2a–7(d)(4)(iii).

[151] On the compliance date for the disclosure-related money market fund reforms adopted in 2014 (Apr. 14, 2016), money market funds will be required to disclose each day the percentage of their total assets invested in daily liquid assets and weekly liquid assets on their Web sites. *See* rule 2a–7(h)(10)(ii) (a money market fund must maintain a schedule, chart, graph, or other depiction on its Web site showing historical information about its investments in daily liquid assets and weekly liquid assets for the previous six months, and must update this historical information each business day, as of the end of the preceding business day). As of the compliance date, they also will be required to report information about the liquidity of their portfolio securities on Form N–MFP. *See* Form N–MFP Items C.21, C.22, and C.23.

[152] *See infra* section III.G.2; proposed Item C.7 of proposed Form N–PORT (requiring a fund to disclose whether a portfolio investment is a 15% Standard Asset); Form N–MFP Item 44 (requiring a money market fund to disclose whether each portfolio security is an illiquid security).

[153] *See infra* notes 722–725 and accompanying text for a discussion of why we are not proposing a liquidity fee regime similar to that for money market funds for other types of open-end management investment companies.

[154] *See* rule 2a–7(c)(2); *see also* 2014 Money Market Fund Reform Adopting Release, *supra* note 85, at section III.A. The compliance date for the amendments to rule 2a–7 related to liquidity fees and gates is October 14, 2016.

[155] *See* rule 22e–3(a) (permitting a money market fund to permanently suspend redemptions and liquidate if the fund's level of weekly liquid assets falls below 10% of its total assets or, in the case of a fund that is a government money market fund or a retail money market fund, the fund's board determines that the deviation between the fund's amortized cost price per share and its market-based NAV may result in material dilution or other unfair results to investors or existing shareholders); *see also* 2014 Money Market Fund Reform Adopting Release, *supra* note 85, at section III.A.4 (discussing amendments to rule 22e–3 adopted as part of the 2014 money market fund reforms); Division of Investment Management, 2014 Money Market Fund Reform Frequently Asked Questions (Aug. 4, 2015), *available at http://www.sec.gov/divisions/investment/guidance/2014-money-market-fund-reform-frequently-asked-questions.shtml.*

• Do commenters agree that open-end ETFs and ETMFs should be included? If not, why not? Do commenters believe that ETFs and/or ETMFs incur additional liquidity risk if they permit redeeming authorized participants to receive cash, rather than an in-kind basket of securities, in exchange for redeemed shares?

• Should any of the requirements of the proposed rule be modified for ETFs or ETMFs on account of the relief from section 22(e) some of these funds receive under their exemptive orders? Should any of the requirements apply differently when an ETF or an ETMF is organized as a class of an open-end fund or as a feeder fund in a master-feeder structure where other classes or feeder funds operate as traditional mutual funds?

Exemptive orders for ETF relief include provisions that govern the composition of portfolio deposits and redemption baskets. In general, portfolio deposits and redemption baskets must represent pro rata slices of the ETF's portfolio and must be the same for all purchasers and redeemers that transact with the ETF on the same day. In recent years, ETF sponsors have requested increased flexibility in determining the composition of portfolio deposits and redemption baskets.[156]

• We request comments on whether such flexibility would result in favorable or unfavorable changes in how ETFs manage the liquidity of their holdings. For example, would ETFs benefit from reduced cash drag? Would the flexibility enable or encourage ETFs to reduce the overall liquidity of their portfolios or to hold a greater amount of relatively illiquid assets? Does the existing 15% guideline adequately address any concerns regarding liquidity that could result from greater basket flexibility? Would the requirements we are proposing adequately address any concerns regarding liquidity that could result from greater basket flexibility? If not, could other requirements adequately address any concerns?

We request comment on the types of investment products that the Commission proposes not to include, or to specifically exclude, from the scope of proposed rule 22e–4.

• Do commenters agree that closed-end funds, including closed-end interval funds, should not be included within the scope of the proposed rule? Should we make any changes to the liquidity requirements for closed-end interval funds?

• Do commenters agree that UITs should not be included within the proposed rule's scope? Is there any subset of UITs that should be considered for inclusion, if only for some aspects of the rule? Is there a significant risk that UITs (or a certain subset of UITs) may not be able to meet redemption requests? With respect to UITs that are not ETFs, and that do not serve as separate account vehicles that are used to fund variable annuity and variable life insurance products, is it reasonable to expect that UIT sponsors would maintain a secondary market in UIT units to the same extent and in the same manner as they have historically?

• Alternatively, should we require UITs to meet certain minimum liquidity requirements at the time of deposit of the securities, such as requiring a UIT to maintain a prescribed minimum portion of its net assets in assets that it believes are convertible to cash within three business days at a price that does not materially affect the value of that asset immediately prior to the sale? Why or why not? What specific requirements of proposed rule 22e–4 should be modified for UITs to account for the facts that UITs are not actively managed, UITs' portfolios are not actively traded, and UITs do not have a board of directors, corporate officers, or an investment adviser to render advice during the life of the trust?

• Is it appropriate that we include ETFs organized as open-end funds but not ETFs organized as UITs within the rule? Should we exclude from the scope of the rule ETFs organized as open-end funds that, similar to UIT ETFs, fully track established and widely recognized indices? Why or why not? Do commenters believe that ETFs organized as open-end funds would reorganize as UITs in response to the rule? Why or why not?

• Do commenters agree that we should specifically exclude money market funds from the scope of proposed rule 22e–4? Is there any subset of money market funds that should be considered for inclusion, if only for some aspects of the rule?

B. Classifying the Liquidity of a Fund's Portfolio Positions Under Proposed Rule 22e–4

We have not updated the liquidity guidelines applicable to funds and fund portfolio assets in over two decades, and we believe that developments in the fund industry as well as staff observations of funds' current liquidity risk management practices warrant proposing requirements for classifying the liquidity of funds' portfolio positions.[157] We are aware based on staff experience that many fund managers engage in analysis of the liquidity of portfolio assets, beyond considering whether the fund's portfolio construction is consistent with the 15% guideline, and we believe that all open-end funds and their shareholders would benefit from a comprehensive review of the liquidity of funds' portfolio positions. Staff outreach has shown that funds today employ notably different procedures for assessing and classifying the liquidity of their portfolio assets.[158] Some funds have implemented procedures that analyze multiple aspects relating to an asset's liquidity, including relevant market, trading, and asset-specific factors, and monitor whether their initial liquidity determinations should be amended based on changed conditions. While the 15% guideline requires a binary determination of whether an asset is liquid or illiquid, funds with relatively comprehensive liquidity classification procedures tend to view the liquidity of their portfolio assets in terms of a more-liquid to less-liquid spectrum.[159] This ''spectrum''-based approach to liquidity can enhance a fund's ability to construct a portfolio whose liquidity profile is calibrated to reflect the fund's specific liquidity needs. The staff has observed, however, that other funds, including some with relatively less liquid strategies, use liquidity classification practices that are substantially less thorough, do not take relevant factors into account when evaluating portfolio assets' liquidity and do not incorporate ongoing liquidity monitoring. To the extent that these practices result in a fund holding assets that are insufficiently liquid to meet redemptions without materially

[156] *See, e.g.,* Comment Letter of Charles Schwab & Co., Inc. on the 2015 ETP Request for Comment (Aug. 17, 2015) (''At a minimum, we believe it is important that ETF managers have the ability to construct non-pro rata baskets, subject to compliance and board oversight to help identify and address instances where the use of such baskets may conflict with the interests of the ETF and its shareholders.'').

[157] *See supra* section II.D.

[158] *See* 2014 Fixed Income Guidance Update, *supra* note 62; *see also* BlackRock FSOC Notice Comment Letter, *supra* note 50, at 6 (stating that among several overarching principles that provide the foundation for a prudent market liquidity risk management framework for collective investment vehicles is ''[m]easuring or estimating (a) levels of liquid assets with recognition of tiers of liquidity, (b) liquidation time frames''); Invesco FSOC Notice Comment letter, *supra* note 35, at 11 (stating that their liquidity analysis includes classifying certain portfolio holdings in liquidity buckets across a liquidity spectrum, utilizing certain quantitative metrics and qualitative factors).

[159] *See, e.g.,* ICI FSOC Notice Comment Letter, *supra* note 16, at 23 (''While the SEC's 85 percent liquidity test requires binary determinations for each portfolio holding . . ., for broader liquidity management purposes fund managers think of portfolio holdings as falling along a liquidity continuum.'').

affecting the fund's NAV (assuming that the fund must sell portfolio assets to meet redemptions), we believe these practices could adversely affect fund investors—either by decreasing the price that redeeming shareholders will receive for their shares and the price of the shares held by non-redeeming investors, or if the fund sells its most liquid assets to meet redemptions, by potentially increasing the liquidity risk of the fund shares held by non-redeeming shareholders.

Due to the foregoing concerns, we are proposing new requirements for classifying and monitoring the liquidity of funds' portfolio positions. Under proposed rule 22e–4, a fund would be required to classify the liquidity of each of the fund's positions in a portfolio asset (or portions of a position in a particular asset) and review the liquidity classification of each of the fund's portfolio positions on an ongoing basis.[160] In classifying and reviewing the liquidity of portfolio positions, proposed rule 22e–4 would require 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.[161] The proposed rule would require a fund to consider certain specified factors in classifying the liquidity of its portfolio positions.[162]

The proposed liquidity categorization process would be *in addition to* the existing 15% guideline (which would be retained, as discussed below [163]) 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. A fund would be able to use this assessment, in turn, to establish procedures for managing its liquidity risk and to determine whether the liquidity of its portfolio reflects its liquidity needs for meeting shareholder redemptions, thus reducing potential dilution of non-redeeming shareholders.[164] As described above, we understand that, in practice, funds apply the 15% guideline to limit the funds' exposures to particular types of securities that generally cannot be sold or sold quickly.[165] Although the 15% guideline involves determining whether an asset can be sold or disposed of within seven days at approximately its stated value, it does not involve a fund considering whether it can actually receive the proceeds of any sale within seven days. The 15% guideline also does not involve a fund taking into account any market or other factors in considering an asset's liquidity,[166] or assessing whether the fund's position size in a particular asset affects the liquidity of that asset. In contrast, the proposed liquidity categorization approach incorporates each of these aspects, which, as discussed further below, we believe are critical to comprehensively assessing the liquidity of a fund's position in a particular portfolio asset.[167] We thus have come to consider the 15% guideline alone to be insufficient to limit a fund's liquidity risk given the fund's obligations to meet shareholder redemptions. We believe the principal benefit of the 15% guideline is to limit the ability of certain highly illiquid strategies, such as private equity, to operate in an open-end fund form.

1. Proposed Relative Liquidity Classification Categories

a. Proposed Classification Requirement

Proposed rule 22e–4(b)(2)(i) would require a fund to classify each of the fund's positions in a portfolio asset (or portions of a position in a particular asset) based on the relative liquidity of the position.[168] For purposes of proposed rule 22e–4, a fund would assess the relative liquidity of each portfolio position based on the number of days within which it is determined, using information obtained after reasonable inquiry, that the fund's position in an asset (or a portion of that asset) would be convertible to cash [169] at a price that does not materially affect the value of that asset immediately prior to sale. That is, the person who classifies the liquidity of each portfolio position [170] must determine—using information obtained after reasonable inquiry—the time period in which the fund would be able to sell the position, at a price that does not materially affect the value of that asset immediately prior to sale, and settle the sale (*i.e.*, receive cash for the sale of the asset). With respect to this determination, the term ''immediately prior to sale'' is meant to reflect that the fund must determine whether the sales price the fund would receive for the asset is reasonably expected to move the price of the asset in the market, independent of other market forces affecting the asset's value. The term ''immediately prior to sale'' is not meant to require a fund to anticipate and determine in advance the precise current market price or fair value of an asset at the moment before the fund would sell the asset. As discussed in more detail below, a fund would be required to consider certain specified market-based, trading, and asset specific factors in determining how long a particular portfolio position would take to convert to cash.[171]

In making this assessment, a fund could determine that different portions of a position in a particular asset could be converted to cash within different times. If a fund were to conclude, based on the liquidity classification factors required to be considered, that it would take the fund longer to convert its entire position in an asset to cash than it would to convert only a portion of that position to cash, it could determine, for example, that 50% of the position could be converted to cash within 1 day, but the remainder of the position could take up to 3 days to convert to cash. Staff outreach has shown that some funds currently consider the liquidity character of their portfolio holdings—particularly relatively large holdings—to be tiered in this manner, with a certain percentage of the holding deemed to be more liquid than the remainder of the holding. Proposed rule 22e–4 would thus specify that a fund would be

[160] Proposed rule 22e–4(b)(2)(i).

[161] *Id.; see also infra* section III.B.1.a.

[162] *See* proposed rule 22e–4(b)(2)(ii); *see also infra* sections III.B.1.a, III.B.2.

[163] *See infra* section III.C.4.

[164] *See generally infra* section III.C (discussing the proposed requirements associated with assessing and managing a fund's liquidity risk); *see also infra* section III.C.1 (discussing the factors a fund would be required to consider in assessing its 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 net asset value).

[165] *See supra* notes 94–97 and accompanying text.

[166] The Commission has, however, discussed factors that would be reasonable for a board of directors to take into account in assessing the liquidity of a rule 144A security (but which would not necessarily be determinative). *See supra* notes 96–97 and accompanying text.

[167] In section III.C.4 below, we discuss the interplay between the 15% guideline as proposed to be codified and the proposed requirement for a fund to invest a set minimum portion of its net assets in three-day liquid assets.

[168] As discussed in detail below, proposed rule 22e–4 would require a fund to assess and manage its liquidity risk, and these risk assessment and risk management requirements would be based in part on the proposed liquidity classification requirement set forth in proposed rule 22e–4(b)(2)(i) and described in this section. *See infra* sections III.C.1, III.C.3. We are also proposing to require that a fund disclose information regarding the liquidity classification of each of the fund's portfolio positions, as determined pursuant to proposed rule 22e–4(b)(2)(i). *See infra* section III.G.2.

[169] *See* proposed rule 22e–4(a)(3) (defining ''convertible to cash'' as ''the ability to be sold, with the sale settled'').

[170] *See infra* section III.D.3 (discussing designation of administrative responsibilities for the liquidity risk management program to the fund's adviser or officers).

[171] These factors are discussed in detail below. *See infra* section III.B.2.

required to adopt policies and procedures for classifying the liquidity of each of the fund's positions in a portfolio asset, *or portions of the fund's position in a particular asset.*[172] In this release, any reference to a fund classifying the liquidity of its position in a particular portfolio asset should be read to also include circumstances in which the fund would classify the liquidity of portions of a position in a particular asset.

Based on its determination of the number of days within which the fund could convert its position in an asset to cash under this standard, the fund would be required to classify each of its positions in a portfolio asset into one of six liquidity categories:

- Convertible to cash within *1 business day.*
- Convertible to cash within *2–3 business days.*
- Convertible to cash within *4–7 calendar days.*[173]
- Convertible to cash within *8–15 calendar days.*
- Convertible to cash within *16–30 calendar days.*
- Convertible to cash in *more than 30 calendar days.*

As discussed below, we anticipate that the proposed liquidity categorization approach would permit a fund to take a more nuanced approach to portfolio construction and liquidity risk management than an approach under which a fund would simply designate portfolio assets as liquid or illiquid. The proposed approach also would provide the framework for detailed reporting and disclosure about the liquidity of funds' portfolio assets in a structured data format, as the six liquidity categories described above would be incorporated into the fund's portfolio holdings reporting on proposed Form N–PORT.[174] In particular, the structured data format would increase the ability of Commission staff, investors, and other potential users to aggregate and analyze the data in a much less labor-intensive manner. This data, in turn, would assist Commission staff in monitoring risks and trends with respect to funds' portfolio liquidity (for example, observing whether portfolio liquidity increases or decreases in response to market events), and would also permit investors to better evaluate the liquidity profile of funds' portfolios and better assess the potential for returns and risks of a particular fund.[175] In addition, the proposed categorization requirement also would provide the foundation for the requirement for a fund to invest a prescribed minimum percentage of its net assets in ''three-day liquid assets'' (that is, any cash held by a fund and any position in an asset, or portion thereof, that the fund believes is convertible to cash within three business days at a price that does not materially affect the value of that asset immediately prior to sale).[176]

The proposed approach would require a fund to assess the liquidity of its entire position in a portfolio asset, or each portion of that position, as opposed to the liquidity of the normal trading lot for that asset. It has been argued that because a fund will not likely need to sell its entire position in a particular asset under normal market circumstances, liquidity determinations should be based on the sale of a single trading lot for that asset, except in unusual circumstances.[177] We agree that the fact that a fund may not be able to convert its entire position in an asset to cash at a price that does not materially affect the value of that asset immediately prior to sale should not, by itself, be dispositive of a portfolio asset's liquidity. Nevertheless, assessing liquidity only on the basis of the ability to sell and receive cash for a single trading lot of a portfolio asset ignores the fact that a fund needing to sell certain assets in order to meet redemptions would almost certainly need to sell greater than one trading lot of a particular asset. In addition, a fund may need 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. The liquidity of the entire position size thus is relevant to the liquidity of the overall portfolio, a fund's ability to meet its stated investment strategy, and a fund's portfolio management.

The proposed categorization approach also is meant to promote more consistent liquidity classification practices within the fund industry. Proposed rule 22e–4 would require a fund to consider certain specified factors, to the extent applicable, with respect to each position in an asset (or similar asset(s), if data concerning a particular portfolio asset is not available to the fund). The proposed rule would specify that this consideration must include certain specified market, trading, and asset-specific factors (each discussed in more detail below), as applicable.[178] We believe that codifying these factors would contribute to more consistency in the quality and breadth of funds' analyses of their portfolio positions' liquidity, while recognizing that funds' portfolios, and the particular assets included within a portfolio, are diverse and that not every factor will be relevant to each liquidity determination. We recognize, and anticipate, that different funds could classify the liquidity of identical portfolio positions differently, depending on their analysis of the factors required to be considered under the proposed rule. There could be multiple appropriate reasons for this, including different information available to funds at different times, and fund-specific reasons for classifying the liquidity of a position in a particular way that are not equally applicable to another fund (for example, in the context of an asset used for hedging or risk mitigation purposes[179]).

Proposed rule 22e–4 does not specify that certain asset classes fall within particular liquidity categories, because we believe that individual funds would be more effective in assessing and reviewing their portfolio positions' liquidity based on an evaluation of market and asset-specific factors, than the Commission would be in determining asset classes' liquidity based on a categorical approach. While we recognize that permitting each fund to determine its own portfolio positions' liquidity would likely result in less consistency in funds' portfolio position liquidity classifications than specifying by rule which asset classes fall into certain liquidity categories, we believe that the proposed approach is preferable to an approach that involves Commission-imposed liquidity classifications of certain asset classes. We are concerned that an approach involving Commission-imposed liquidity classifications would likely result in certain assets' liquidity being overestimated and others' liquidity being underestimated, since we believe that a portfolio position's liquidity character depends on a range of interrelated factors (as discussed

[172] *See* proposed rule 22e–4(b)(2)(i) (emphasis added).

[173] *See infra* text following note 194 (discussing potential overlaps between the 2–3 business day and 4–7 calendar day liquidity classification categories).

[174] *See* proposed Item C.13 of proposed Form N–PORT; *see also infra* section III.G.2.

[175] *See infra* section III.G.2.

[176] *See* proposed rule 22e–4(a)(8); proposed rule 22e–4(b)(2)(iv)(A)–(C); *see also infra* section III.C.3.

[177] *See* Investment Company Institute, *Valuation and Liquidity Issues for Mutual Funds* (Feb. 1997) (''ICI Valuation and Liquidity Issues White Paper''), at 42.

[178] *See* proposed rule 22e–4(b)(2)(ii); *see also infra* section III.B.2.

[179] *See infra* section III.B.2.i.

below).[180] Also, we are concerned that Commission-imposed liquidity classifications would be overly rigid and would be difficult to adjust quickly to reflect changing market conditions.[181] Thus, we believe that this approach would be more likely to provide an inaccurate reflection of an asset's liquidity than the proposed classification approach.

Although we are not proposing an approach that presumes that certain asset classes fall within particular liquidity categories, we note that if a fund is an outlier with respect to its liquidity classifications, Commission staff would be able to identify such outlier classifications based on the fund's position-level liquidity disclosure on Form N–PORT and determine whether further inquiry is appropriate.[182] If Commission staff does determine to examine a fund's liquidity classifications based on the fund's Form N–PORT disclosure, it would be able to examine whether the fund considered the required factors in classifying the liquidity of its portfolio positions. Thus, while the actual liquidity classifications assigned to funds' portfolio positions could vary from fund to fund, the proposed approach provides a regulatory framework that should promote consistency in funds' liquidity classification practices.

The proposed approach to liquidity classification reflects our understanding that many funds evaluate assets' liquidity across a liquidity spectrum, as opposed to making a binary determination of whether an asset is liquid or illiquid. As discussed above, Commission staff outreach to funds has shown us that it is common for funds to treat portfolio assets as relatively liquid or illiquid compared to other portfolio assets, and some funds ''score'' the liquidity of their portfolio holdings based on a variety of factors, including the period of time it takes to convert the holdings to cash, similar to those that we are proposing. We also understand that some third-party service providers currently provide data and analyses assessing the relative liquidity of a fund's portfolio assets.[183]

A nuanced liquidity classification approach has practical benefits in terms of managing liquidity to meet anticipated redemptions. Because we understand based on staff outreach that many funds today consider very few, if any, of their portfolio assets to be holdings limited by the 15% guideline, we believe that the proposed spectrum-based approach to liquidity classification acknowledges the liquidity variation in funds' portfolio positions better than the current framework, in which a fund could consider its entire portfolio (or a significant portion of the portfolio) to be simply ''liquid.'' We believe that this approach would permit a fund to better plan how it would meet redemptions occurring in a day, a week, or some other period, by categorizing asset positions in terms of the respective times in which they could be converted to cash and constructing the fund's portfolio in order to manage its expected and reasonably foreseeable redemptions during these periods. The proposed liquidity classification approach also would enhance a fund's ability to adjust its portfolio composition in anticipation of, or in reaction to, adverse events, or to comply with its investment strategy or mandate.

The proposed approach would provide the framework for reporting and disclosure about the liquidity of funds' portfolio assets that would permit our staff to better monitor liquidity trends and funds' liquidity risk profiles, and also would help investors and other market participants assess funds' relative liquidity. As discussed below, we are proposing amendments to proposed Form N–PORT that would require a fund to indicate the liquidity classification of each of a fund's portfolio positions.[184] Funds are not currently required to disclose information about the liquidity of their portfolio assets, although Item C.7 of Form N–PORT, as proposed earlier this year, would require that each fund report whether each particular portfolio security is an ''illiquid asset'' and defines illiquid assets in terms of current Commission guidelines.[185] Requiring a fund to classify the liquidity of each portfolio position also would facilitate fulsome reporting of a fund's liquidity profile on Form N–PORT. As discussed below, we believe that the proposed N–PORT reporting requirements would permit enhanced Commission monitoring and oversight of the fund industry and would result in investor protection benefits, because we believe the proposed requirements would permit investors (particularly institutional investors), as well as academic researchers, financial analysts, and economic research firms, to use the liquidity-related data reported on Form N–PORT to evaluate fund portfolios and related risks.[186]

The time frames associated with the proposed liquidity categories reflect our understanding of some of the relevant periods that some funds currently consider in assessing the liquidity of a fund's portfolio assets.[187] There are many ways in which identifying portfolio positions that are convertible to cash in one business day or two-to-three business days could enhance a fund's ability to calibrate its liquidity profile in order to manage its expected and reasonably foreseeable redemptions during these periods.[188] For example, if a fund discloses that it will generally pay redemption proceeds within one business day after receiving a shareholder's redemption request (although it may delay payment for seven calendar days, as permitted by section 22(e) of the Investment

[180] *See infra* section III.B.2.

[181] *See, e.g.*, Flash Crash Staff Report, *supra* note 124 (noting that, while ''[t]he U.S. Treasury market is the deepest and most liquid government securities market in the world,'' liquidity conditions in the market for U.S. Treasury securities became ''significantly strained'' during the October 2015 ''Flash Crash'').

[182] *See infra* section III.G.2.

[183] *See infra* note 205 and accompanying paragraph.

[184] *See infra* section III.G.2.a.

[185] *See supra* note 118 and accompanying text; *see also infra* notes 563–565 and accompanying text.

[186] *See infra* sections III.G.2.a; IV.C.3.b.

[187] We note that Question 32 on Form PF requests information regarding the percentage of the reporting fund's portfolio capable of being liquidated within certain time frames. *See supra* note 70 for additional information about Form PF. However, the time frames associated with the liquidity categories in proposed rule 22e–4 are different from those incorporated in Form PF Question 32 on account of the different redemption obligations of registered funds versus private funds, as well as, relatedly, the different liquidity profile of registered funds' portfolio assets (generally) versus private funds' portfolio assets.

[188] With respect to the one-day and two-to-three-day liquidity categories, we are proposing to incorporate a convertible-to-cash time period that is based on business days instead of calendar days, in order to minimize unnecessary re-classifications of portfolio positions that could affect data analyses of a fund's Form N–PORT data reporting regarding these positions. If these two liquidity categories were based on calendar days instead of business days, a portfolio position reported on a Friday might be considered to be convertible to cash within three calendar days (because markets would not be open over the weekend), but the same portfolio position reported on a different weekday would be considered to be convertible to cash within one or two calendar days. This could cause a fund to have to re-classify portfolio positions based on the reporting date, and this re-classification could skew analyses that the Commission staff or other parties conduct using Form N–PORT data. Because the required classification is the most granular in shortest-term liquidity categories, we believe such reporting consistency is particularly important. However, after the one-day and two-to-three-day liquidity categories, we are proposing to switch to a calendar day framework both to tie to the seven calendar day requirement for meeting redemptions under section 22(e) of the Act and because the longer the timeframe is to convert the asset to cash, the more we recognize the timeframe is likely to be a less precise estimate and thus the additional precision from the business day categorization is less likely to be material to the classification.

Company Act), it would be required to identify portfolio assets that, if needed, could be converted to cash within one day. Many funds that do not pay redemption proceeds within a day of receiving a redemption request nevertheless may pay redemption proceeds within a time period shorter than the seven days required by section 22(e). For example, because rule 15c6–1 under the Exchange Act, which became effective in 1995, established three business days as the standard settlement period for securities trades effected by a broker-dealer, this rule effectively requires most funds to pay redemption proceeds within three business days after receiving a redemption request, because a broker or dealer will be involved in the redemption process.[189] Market participants also are exploring further reducing this settlement period from T+3 to T+2, and possibly eventually to T+1.[190] Likewise, even funds that do not disclose that they will pay redemption proceeds within periods shorter than seven days may find it useful to identify portfolio positions that may be converted to cash quickly (*i.e.*, within three business days or shorter) in order to meet unexpected or unusually high redemption requests, or to rebalance or otherwise adjust a portfolio's composition quickly.

Along with identifying positions that may be converted to cash within either one business day or two-to-three business days, we believe that identifying each ''less liquid asset''—that is, any position in an asset (or portion of a position in a particular asset) that is not a three-day liquid asset[191]—would enhance a fund's ability to determine the portion of the fund's portfolio that the fund may not be able to rely on selling to meet redemption requests within the three-day period required by rule 15c6–1 under the Exchange Act, or within some shorter period.[192] Among less liquid assets, some may be convertible to cash in just over three business days, others may not be convertible to cash for a year or more, and still others may fall in between these two extremes. To reflect this, we are proposing four categories of less liquid assets: Positions convertible to cash within four-to-seven calendar days, eight-to-fifteen calendar days, sixteen-to-thirty calendar days, and over-thirty calendar days.[193]

Determining whether a portfolio position is convertible to cash within four-to-seven calendar days would enhance a fund's ability to identify those positions that are not immediately or very quickly convertible to cash (*i.e.*, those positions convertible to cash within one, two, or three business days), but that nevertheless could 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). For example, for a fund that typically sells its most liquid assets to meet redemptions, the four-to-seven day liquidity category could assist the fund in constructing a second layer of portfolio liquidity to meet redemptions using liquidity within the fund even after it has sold or disposed of its most liquid assets.[194] We anticipate that funds could determine that a variety of securities within different asset classes could be converted to cash within four-to-seven calendar days, depending on facts and circumstances.

We understand that circumstances could arise in which the settlement period for a particular portfolio position could be viewed either as two-to-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, the settlement period could be viewed either as two business days or four calendar days. Because this could cause ambiguity for reporting purposes,[195] in situations in which the settlement period could be viewed either as two-to-three business days or four-to-seven calendar days, a fund should classify the portfolio position based on the shorter settlement period (*i.e.*, two-to-three business days, not four-to-seven calendar days).[196]

We believe that the eight-to-fifteen calendar day and sixteen-to-thirty calendar day categories of less liquid assets would distinguish a position that is convertible to cash in close to seven calendar days (*i.e.*, close to the required redemption period established by section 22(e)) from one that takes significantly longer (*i.e.*, close to a month) to convert to cash. For example, if a fund were to enter into a period of extended redemptions that it anticipates would last for multiple days, it could begin trying to liquidate eight-to-fifteen day assets in order to plan to meet redemptions that would occur more than a week in the future. The over-thirty calendar day category is meant to identify those portfolio positions that are the least liquid, including those that may have very extended settlement periods.

Assets with settlement periods longer than three business days would be considered less liquid assets. Assets also should be classified under the rule based on typical expected settlement periods for transactions in that asset in the particular jurisdiction, and not based on the prospect of gaining expedited settlement of the purchase or sale upon request. Transactions in certain types of securities have historically entailed lengthy settlement periods. For example, transactions in certain foreign securities,[197] agency mortgage-backed securities (other than secondary market trades),[198] and U.S.

[189] *See* Securities Transactions Settlement Release, *supra* note 74. In 2004, the Commission issued a concept release seeking input on, among other things, the benefits and costs associated with implementing a settlement cycle for most broker-dealer transactions that is shorter than three days. Concept Release: Securities Transactions Settlement, Investment Company Act Release No. 26384 (Mar. 11, 2004) [69 FR 12922 (Mar. 18, 2004)] (''Securities Transactions Settlement Concept Release'').

Several comments from asset managers received in response to the FSOC Notice noted that, as a practical matter, the three-business-day settlement requirements of rule 15c6–1 effectively take most fund investments to a T+3 settlement timeline. *See, e.g.*, SIFMA IAA FSOC Notice Comment Letter, *supra* note 16, at n.34; Fidelity FSOC Notice Comment Letter, *supra* note 20, at n.20.

[190] *See supra* note 76 and accompanying text.

[191] *See* proposed rule 22e–4(a)(6).

[192] *See infra* notes 333–334 and accompanying text (discussing common reasons why a fund could be required to meet redemption requests within three business days, or within some shorter period).

[193] *See* proposed rule 22e–4(b)(2)(i)(C)–(F).

[194] *See supra* text accompanying and following note 37 (discussing the fact that a fund that sells its most liquid assets to meet redemptions minimizes the effect of the redemptions on short-term fund performance for redeeming and remaining investors, but may leave remaining investors in a potentially less liquid and riskier fund until the fund rebalances).

[195] *See infra* section III.G.2 (discussing proposed Form N–PORT reporting requirements).

[196] *See* proposed note to proposed rule 22e–4(b)(2)(i); *see also supra* note 188.

[197] *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 http://www.gfma.org/Initiatives/Foreign-Exchange-(FX)/GFMA-Submits-Comments-to-the-EC-and-the-ESMA-on-Consistent-Regulatory-Treatment-for-Incidental-Foreign-Exchange-Transactions/* (''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).'').

[198] *See, e.g.*, James Vickery & Joshua Wright, *TBA Trading and Liquidity in the Agency MBS Market*, 19 FRBNY Econ. Policy Review 1 (May 2013), *available at http://www.newyorkfed.org/research/epr/2013/1212vick.pdf* (noting that over ninety percent of agency mortgage-backed securities trading occurs in the to-be-announced (''TBA'') forward market, and that the trade date of a TBA trade will usually precede settlement by between two and sixty days).

bank loan participations [199] typically require settlement periods of more than three business days. An asset having a shorter settlement period could also be considered to be a less liquid asset, however, if a fund were to determine, based on the factors required to be assessed under the proposed rule, that it could not sell its position in the asset and settle the sale (at a price that does not materially affect the value of that asset immediately prior to sale) within three business days.

b. Request for Comment

We request comment on the proposed requirements for classifying the relative liquidity of a fund's portfolio positions.

- What procedures or practices do funds currently use to assess and classify the liquidity of portfolio assets? Have these procedures proven effective in the past? If not, under what circumstances were they ineffective, and why? Have funds modified their procedures for assessing and classifying liquidity in recent years to account for changes in market structure and the advent of new types of market participants? If so, how? Who at the fund and/or the adviser is tasked with assessing the liquidity of the funds' portfolio assets? Are any third-party service providers used in assessing portfolio assets' liquidity, and if so, how are such service providers used and what are the costs associated with their services? Would the proposed requirements require funds to make systems modifications and what costs would be associated with any potential system modifications? What would the associated costs and other burdens be for funds to assess and classify the liquidity of portfolio assets?
- Do commenters agree that it would be useful for a fund to consider portfolio positions' liquidity in terms of a spectrum instead of a binary determination that an asset is liquid or illiquid, and do funds currently consider the relative liquidity of portfolio assets by classifying assets (either explicitly or informally) into multiple liquidity categories? If so, what categories are used, and why? Alternatively, should we define the term ''illiquid assets?'' Why or why not? If so, how should we define it?
- Do funds currently consider the period in which a fund's position in an asset can be converted into cash (that is, sold, with the sale settled) in assessing and classifying the liquidity of portfolio assets? Do commenters agree that it would be useful for a fund to assess the liquidity of its entire position in a portfolio asset, or portions of a position in a particular asset, as opposed to the liquidity of a single trading lot of a portfolio asset held by the fund? Do funds currently consider the ability to sell varying portions of a fund's position in a portfolio asset (fractions of the position, as well as the entire position) in assessing that asset's liquidity?
- What assumptions, estimations, and judgments would funds need to make in order to determine liquidity classifications, and how would these assumptions, estimations, and judgments affect the comparability of reporting across funds? Are there concerns, such as proprietary or liability concerns, associated with reporting liquidity classifications based on such assumptions, estimations, and judgments?
- The proposed rule would require a fund to determine, using information obtained after reasonable inquiry, the number of days within which a fund's position in a portfolio asset (or portion 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. Do commenters believe that the terms ''information obtained using reasonably inquiry,'' ''at a price that does not materially affect the value of that asset,'' and ''immediately prior to sale'' are sufficiently clear? If not, how could they be made clearer?
- Do the proposed liquidity categories reflect the manner in which funds currently assess and categorize the liquidity of their portfolio holdings as part of their portfolio and risk management? Should we increase or decrease the number of liquidity categories to which a fund might assign a portfolio position? For example, should we combine the last three liquidity categories (convertible to cash within 8–15, 16–30, or in more than 30 calendar days) into one liquidity classification category (*e.g.,* ''convertible to cash in more than 7 calendar days'')? Why or why not? Should we add one or more liquidity categories outside of the more than 30 calendar day time period (*e.g.,* ''convertible to cash in more than 90 calendar days'')? Why or why not? Should we revise the time periods associated with any of the proposed liquidity categories? Alternatively, should we permit a fund to classify the liquidity of its portfolio securities based not on conversion-to-cash time periods specified by the Commission, but instead based on conversion-to-cash time periods that the fund determines to be appropriate (taking into account the fund's redemption obligations)? Would such an approach diminish comparability in funds' reporting of their liquidity assessment on proposed Form N–PORT, discussed below?
- Regarding the proposed liquidity categories that would be associated with less liquid assets, is there any reason why an asset with a settlement period longer than three business days should not be deemed to be a less liquid asset? What types of funds would be largely composed of assets that would be considered less liquid assets under proposed rule 22e–4?
- To what extent do commenters anticipate that assets in the eight-to-fifteen calendar days, sixteen-to-thirty calendar days, and over-thirty calendar days classification categories under the proposed rule overlap with assets that funds currently consider to be limited by the 15% guideline?
- Are the proposed liquidity categories appropriate for ETFs and ETMFs? Should ETFs and ETMFs that transact primarily in kind be permitted to have different liquidity categories? If so, what categories and why?
- Should smaller funds or funds pursuing particular types of investment strategies be permitted to have different liquidity categories? If so, how should we define those subsets of funds?
- Should we use business days or calendar days for all the liquidity classification categories, rather than using business days in the shorter categories, but calendar days for the longer categories? If we used calendar days for all the categories, how could we avoid changes in asset classification based on whether the asset was held near a weekend? In addition, if we used calendar days, how could we obtain information on which assets could be converted to cash within the three business day requirement in rule 15c6–1? If we used business days for all categories, how could we obtain information on which assets could be converted to cash within the seven calendar day (as opposed to business day) requirement for payment of redemption proceeds under section 22(e) of the Act?

2. Factors To Consider in Classifying the Liquidity of a Portfolio Position

Staff outreach to the fund industry has highlighted certain common factors

[199] *See, e.g.*, BlackRock, Viewpoint, Who Owns the Assets, *supra* note 79; 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*; OppenheimerFunds FSOC Notice Comment Letter, *supra* note 79, at 3–4 (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 dedicated to bank loan funds.'').

that some funds use in evaluating portfolio assets' liquidity. Specifically, the most comprehensive liquidity analyses take into account relevant market-based, trading, and asset-specific factors in assessing a fund's ability to convert a position in a portfolio asset (or portions of a position in a particular asset) to cash at approximately its stated value during current market conditions. The Commission has previously provided examples of factors that would be reasonable for a board of directors to consider in assessing the liquidity of a rule 144A security,[200] and outreach has shown that certain funds reference these factors when considering the liquidity of all portfolio assets (not just rule 144A securities). Other funds, however, classify the liquidity of their portfolio assets using substantially less thorough practices (*e.g.,* assuming, without individualized analysis, that certain asset classes are always liquid or always illiquid). As discussed above, we believe that a nuanced classification approach may have practical benefits in improving how funds manage liquidity to meet anticipated redemptions.[201]

Proposed rule 22e–4(b)(2)(ii) would require a fund to take the following 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.

These factors are based on those certain investment advisers consider when systematically evaluating the liquidity of portfolio assets.[202] We are proposing to require that all funds take into account these factors, as applicable, to encourage effective liquidity assessment across the fund industry. This list is not meant to be exhaustive. We recognize that the specific factors appropriate for consideration could vary depending on the issuer and the particular asset, and therefore an evaluation of a particular portfolio position's liquidity could focus more heavily on certain factors and less on others. In evaluating the liquidity of its portfolio positions, a fund could also take into account other pertinent factors in addition to those set forth in proposed rule 22e–4(b)(2)(ii). However, a fund would be required to consider, as applicable, the proposed rule 22e–4(b)(2)(ii) factors as a minimum set of considerations to be used in classifying the liquidity of each portfolio position.

If a fund lacks pertinent information about a portfolio asset, the fund would be required to consider the proposed rule 22e–4(b)(2)(ii) factors as applied to similar assets (for purposes of this release, ''comparable assets'').[203] For example, if a fund has never before invested in a particular asset—particularly, an asset that does not trade frequently and for which market data is not generally available or is of low quality—the fund could estimate the time it would take to convert the asset to cash if better market data were available for comparable assets (for example, as applicable, assets that are similar in terms of duration, credit quality, bid-ask spread, and/or maturity). Under these circumstances, a fund would be required to evaluate all applicable 22e–4(b)(2)(ii) factors with respect to the comparable assets. If data concerning a portfolio asset (as opposed to the comparable assets) were to become available to a fund, we would expect that a fund would assess, as part of its ongoing review of the liquidity classifications assigned to each portfolio position, whether the liquidity classification given to the portfolio asset is appropriate in light of newly available data.[204]

We understand that some third-party service providers currently provide data and analyses assessing the relative liquidity of a fund's portfolio assets,[205] and we believe that a fund could also appropriately use this type of data to inform or supplement its consideration of the proposed liquidity classification factors. However, before doing so, a fund should consider having the person(s) at the fund or investment adviser tasked with administering the fund's liquidity risk management program review the quality of the 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 the proposed liquidity classification factors. 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.

In the following sections, we discuss each of the proposed liquidity classification factors and provide guidance on specific issues associated with each of these factors that a fund may wish to consider in evaluating the liquidity of its portfolio positions.

a. Existence of Active Market, Including Whether the Asset Is Listed on an Exchange, and the Number, Diversity, and Quality of Market Participants

Under proposed rule 22e–4(b)(2)(ii)(A), a fund would be required to consider, to the extent applicable, the 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.

The manner in which a fund may sell a particular portfolio asset, including whether an asset is listed on an exchange, can affect that asset's liquidity. While in general, being listed on a developed and recognized exchange increases an asset's liquidity,[206] the fact that an asset is

[200] *See supra* note 96 and accompanying text.

[201] *See supra* paragraphs accompanying note 178 and following note 183.

[202] *See, e.g.,* ICI FSOC Notice Comment Letter, *supra* note 16, at 23 (''Specific information that may contribute further to the manager's view of an asset's liquidity may include: (i) assessments of bid-ask spreads, volumes, depth of secondary market for the asset, information from pricing vendors, and other data; (ii) deliberations among portfolio managers and traders regarding valuation and liquidity; (iii) analysis of the capital structure and credit quality of the asset/holding; (iv) the ''newness'' of a bond issue (newer issues tend to be more liquid); and (v) liquidity data provided by third parties. Some fund managers assign ''liquidity scores'' to particular holdings based on these types of factors.'').

[203] *See* proposed rule 22e–4(b)(2)(ii).

[204] *See infra* section III.B.3.a.

[205] These third-party vendors may, for example, create liquidity scores for a fund's portfolio assets based on factors such as duration, rating, bid-ask spreads, and instrument maturity, and provide models that reflect how an asset's liquidity may be affected by different market conditions.

[206] *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

Continued

exchange-traded does not necessarily mean that a fund would be able to convert that asset to cash within a relatively short period. 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, certain securities that are traditionally traded in over-the-counter (''OTC'') markets, such as corporate bonds, could be considered more liquid if, for instance, they are frequently traded and there are generally a substantial number of bids to purchase the security. As an extreme example, short-term 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.[207]

The means of trading a portfolio asset can affect its liquidity regardless of whether the asset is a security traded on an exchange. For example, whether an asset is traded in a bilateral transaction with a single dealer, or through an electronic auction mechanism whereby a trader can simultaneously contact multiple counterparties, can have different effects on that asset's liquidity.[208] The choice of trading mechanism may have different liquidity effects depending on the asset 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 being traded. However, a fund should consider past experience in using different trading mechanisms to sell a particular asset (or similar assets), when assessing the liquidity of a portfolio position in that asset.

In addition, there are multiple considerations that a fund could assess in evaluating the diversity and quality of market participants for a particular asset. A fund may wish to consider the number of market makers on both the buying and selling sides of transactions. A fund also may consider the quality of market participants who purchase and sell units of a particular portfolio asset, 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 are meaningful in assessing a portfolio position's liquidity because the most liquid assets tend to have active sale or repurchase markets at all times with diverse market participants.[209] The presence of multiple market makers may be a sign that a market is liquid.[210] Diversity of market participants, on both the buying and selling sides of transactions, is also an important factor for a fund to consider because it tends to reduce market concentration and may facilitate a market remaining liquid during periods of stress.[211]

b. Frequency of Trades or Quotes and Average Daily Trading Volume

Proposed rule 22e–4(b)(2)(ii)(B) would require a fund to consider the frequency of trades and quotes for a particular asset in evaluating the liquidity of a portfolio position in that asset, as well as the asset's average daily trading volume, regardless of whether the asset is a security traded on an exchange.

In general, the greater the frequency of trades for an asset (and, relatedly, the greater the frequency of bid and ask quotes for that asset), the more liquid that asset is. However, this is not a perfect or complete measure, and trade size also should be considered in assessing the relationship between trade frequency and liquidity. 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.[212] In evaluating the frequency of trades (and bid and ask quotes) for an asset, a fund should generally consider, among other relevant factors, the number of dealers quoting prices for that asset, the number of other potential purchasers and sellers, and dealer undertakings to make a market in the asset.

High average trading volume also tends to be correlated with greater liquidity. In general, the greater the average daily trading volume for a particular portfolio asset, the deeper the market, and the more likely it is that a fund would be able to convert its position to cash at a price that does not materially affect the value of that asset immediately prior to sale.[213] A fund

FSOC Notice Comment Letter, *supra* note 45, at 9 (''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.'').

[207] *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)). *But see* Flash Crash Staff Report, *supra* note 124 (noting that, while ''[t]he U.S. Treasury market is the deepest and most liquid government securities market in the world,'' liquidity conditions in the market for U.S. Treasury securities became ''significantly strained'' during the October 2015 ''Flash Crash'').

[208] *See, e.g.,* Terrence Hendershott & Ananth Madhavan, *Click or Call? Auction versus Search in the Over-the-Counter Market* (Mar. 19, 2012), *available at http://people.stern.nyu.edu/jhasbrou/SternMicroMtg/SternMicroMtg2012/Accepted/ClickOrCall13.pdf.*

[209] *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.'').

[210] *See, e.g.,* Sunil Wahal, *Entry, Exit, Market Makers, and the Bid-Ask Spread,* 10 Rev. of Fin. Stud. 871 (1997), *available at http://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.'').

[211] *See, e.g.,* Amir Rubin, *Ownership Level, Ownership Concentration, and Liquidity,* 10 J. Fin. Markets 219 (Aug. 2007), *available at http://www.sfu.ca/~arubin/JFM_2006074.pdf* (''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.'').

[212] *See* Erik Banks, *Liquidity Risk: Managing Funding and Asset Risk* (2nd ed. 2013), at 169.

[213] *See id.* at 168; *see also* MarketWatch, *Fitch: Bond Trade Frequency Strongly Linked to Issue Size* (Jan. 29, 2015), *available at http://www.marketwatch.com/story/fitch-bond-trade–frequency-strongly-linked-to-issue-size-2015-01-29* (discussing Fitch Ratings study findings showing that smaller investment-grade corporate bond issues, under $500 million, trade materially less frequently than larger issue bonds); Fidelity FSOC Notice Comment Letter, *supra* note 20, at 21 (''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 may wish to particularly consider the number of days a particular asset has shown zero trading volume during the prior month, year, or other relevant period, as this could indicate particularly limited liquidity. High trading volume is not always indicative of available liquidity for a particular asset, however. For example, high trading volumes might be associated with high selling pressure on the asset and trades at that time may have a high price impact.[214]

Assets that are components of widely followed market indices tend to have relatively high trading volume, and therefore relatively high liquidity compared to other assets. If a security is included in such an index, market participants are likely to invest in the security in order to replicate the index. This, in turn, will increase demand and trading volume for the security, therefore increasing the security's liquidity compared to securities not in such an index.[215] Additionally, index components are selected, with a goal of promoting replicability of the index, based on multiple factors including liquidity screens, which in turn may be based on an asset's trading volume.[216] A security's inclusion in a widely followed market index therefore suggests relatively high trading volume, and thus a greater level of liquidity relative to similar securities that were not chosen to be part of such an index (*e.g.,* a high-yield corporate bond included in a widely followed market index would likely be more liquid than an otherwise similar high-yield corporate bond that is not a component of such an index).

c. Volatility of Trading Prices

Under proposed rule 22e–4(b)(2)(ii)(C), a fund would be required to consider the volatility of trading prices for a particular portfolio asset when evaluating the liquidity of a position in that asset. In general, there is an inverse relationship between liquidity and volatility,[217] as lack of liquidity in a particular asset tends to amplify price volatility for that asset.[218] Additionally, Commission staff 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.''[219] For these reasons, we believe that trading price volatility is potentially a valuable metric to consider in determining an asset's liquidity.

d. Bid-Ask Spreads

Bid-ask spreads—the difference between bid and offer prices for a particular asset—have historically been viewed as a useful measure for assessing the liquidity of assets that trade in the OTC markets.[220] A fund would thus be required, under proposed rule 22e–4(b)(2)(ii)(D), to consider a portfolio asset's bid-ask spreads in evaluating the liquidity of a position in that asset. The bid-ask spread of a particular fixed income asset is related to the riskiness of that asset, as well as the length of time that a broker-dealer believes it will have to hold the asset before selling it.[221] In general, high bid-ask spreads for a particular asset correlate with a lack of liquidity in that asset. 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.[222] However, bid-ask spreads alone do not necessarily provide a comprehensive understanding of an asset's liquidity. For instance, bid-ask spreads are often constrained by the increments in which prices are quoted.[223]

& 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.*

[214] *See, 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).

[215] *See, e.g.,* Shantaram P. Hegde & John B. McDermott, *The Liquidity Effects of Revisions to the S&P 500 Index: An Empirical Analysis,* 6 J. Fin. Markets 413 (2003) (''Using a recent sample of S&P 500 additions, we find a sustained increase in the liquidity of the added stocks.'').

[216] *See, e.g.,* Stock Index Liquidity Screen patent application (Owner: Frank Russell Company) (Mar. 19, 2009), *available at http://appft.uspto.gov/netacgi/nph-Parser?Sect1=PTO2&Sect2=HITOFF&p=1&u=%2Fnetahtml%2FPTO%2Fsearch-bool.html&r=1&f=G&l=50&co1=AND&d=PG01&s1=%22stock+index+liquidity+screen%22&OS=*''stock+index+liquidity+screen''&RS=''stock+index+liquidity+screen'' (describing various methods that index providers use to identify securities with inadequate liquidity and exclude them from indices).

[217] *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).

[218] *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* note 20, at 21 (''Liquidity management is linked to portfolio managers' attention to market risks indicated by . . . increasing market- and security-specific volatility.'').

[219] 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 interests 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* Condon & Kearns, *Fed Worried About Triggering Another 'Taper Tantrum,'* BloombergBusiness (Oct. 8, 2014), *available at http://www.bloomberg.com/news/articles/2014–10–08/fed-worried-about-triggering-another-taper-tantrum-.*

[220] *See, e.g.,* Michael J. Fleming, *Measuring Treasury Market Liquidity,* Federal Reserve Bank of New York Policy Review (Sept. 2003), *available at http://www.newyorkfed.org/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* note 20, 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)'').

[221] *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).

[222] *See, e.g.,* BlackRock Investment Institute, *Got Liquidity?* (Sept. 2012), *available at http://www.blackrock.com/investing/literature/whitepaper/got-liquidity-us-version.pdf*, at p.7; *see also* Oppenheimer, *Diminished Liquidity in the Corporate Bond Market: Implications for Fixed Income Investors* (Mar. 16, 2015), *available at https://www.opco.com/redirect/bond-liquidity-report-3–15.aspx*, at p.1.

[223] *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 http://www.acsu.buffalo.edu/~keechung/MGF743/Readings/G5.pdf* (''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

Continued

e. Standardization and Simplicity of Structure

Proposed rule 22e–4(b)(2)(ii)(E) would require a fund to consider whether a portfolio asset has a relatively standardized and simple structure in evaluating the liquidity of a position in that asset. Assets that trade OTC with terms set at issuance such as sizes, maturities, coupons, and payment dates tend to be relatively more liquid compared to similarly situated assets without standardized terms. The issue of standardization is particularly significant with respect to the corporate bond market, since corporate issuers commonly have large numbers of bonds outstanding, and trading can be fragmented among that universe of bonds. 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.[224] Conversely, 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 assets' liquidity, as measured by factors such as the bid-ask spreads for these assets and the number of dealers providing quotes for these assets.[225] While standardization of a particular security contract alone is not indicative of that security's liquidity, 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.

f. Maturity and Date of Issue

With respect to fixed income assets, proposed rule 22e–4(b)(2)(ii)(F) would require a fund to consider the maturity of a particular asset, as well as when the asset was issued, in assessing the liquidity of the fund's position in that asset. 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.[226] 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).[227] Because high trading volume generally suggests relatively higher liquidity,[228] 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 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 and Limitations on Transfer

Proposed rule 22e–4(b)(2)(ii)(G) would require a fund to consider any restrictions on trading a particular asset, and limitations on transfers of that asset, in evaluating the liquidity of a portfolio position in that asset. We previously stated that the liquidity of rule 144A securities is ''a question of fact for the board of directors [of the fund] to determine based upon the trading markets for the specific security.''[229] We also stated that a fund's board may find it reasonable to consider certain factors when evaluating the liquidity of a rule 144A security, including: (i) the frequency of trades and quotes for the security; (ii) the number of dealers willing to purchase or sell the security and the number of other potential purchasers; (iii) dealer undertakings to make a market in the security; and (iv) the nature of the security and the nature of the marketplace trades (*e.g.,* the time needed to dispose of the security, the method of soliciting offers, and the mechanics of transfer).[230] These guidance factors are consistent with certain of the proposed rule 22e–4(b)(2)(ii) factors,[231] and a fund is required to consider the proposed rule

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.'').

[224] *See* BlackRock, Viewpoint, *Corporate Bond Market Structure: The Time for Reform Is Now* (Sept. 2014), at p.7, *available at http://www.blackrock.com/corporate/en-ae/literature/whitepaper/viewpoint-corporate-bond-market-structure-september-2014.pdf.*

[225] *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 noncleared 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).

[226] *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.*

[227] 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 (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. 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%'').

[228] *See supra* section III.B.2.b.

[229] *See* Rule 144A Release, *supra* note 86. As discussed below, the Commission has stated that an investment company's board of directors may delegate day-to-day responsibility for such determinations to the investment company's investment adviser, provided that the board retains sufficient oversight. *See infra* section III.D.3; *see also* Rule 144A Release at n.61.

[230] *See* Rule 144A Release, *supra* note 86, at text following n.62.

[231] ''The frequency of trades and quotes for the security'' is consistent with proposed rule 22e–4(b)(2)(ii)(B). ''The number of dealers willing to purchase or sell the security and the number of other potential purchasers'' and ''dealer undertakings to make a market in the security,'' are reflected in proposed rule 22e–4(b)(2)(ii)(A). ''The nature of the security and the nature of the marketplace trades'' is a very general factor, and we believe that many of the proposed rule 22e–4(b)(2)(ii) factors (in particular, those reflected in proposed rule 22e–4(b)(2)(ii)(A), (B), (C), (D), (E), (F), (G), and (H)) indicate the nature of the security and the nature of marketplace trades.

22e–4(b)(2)(ii) factors in evaluating the liquidity of a 144A security.

Regardless of whether a portfolio asset 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.[232] Portfolio assets furthermore may be subject to certain contractual limitations on transfer.[233] Securities subject to transfer limitations in general are less liquid than securities without such limitations.

h. Size of Position in an Asset Relative to the Asset's Average Daily Trading Volume and, as Applicable, Number of Units of the Asset Outstanding

Under proposed rule 22e–4, a fund's liquidity analysis regarding a particular portfolio asset would be required to take into consideration the ability to sell and receive cash for the entire position (or, as applicable, portions of a position in a particular asset), not only its ability to convert a single trading lot of that asset to cash.[234] Because the size of a fund's portfolio position in a particular asset is a key element in determining a fund's ability to convert the entire position (or portions of a position in a particular asset) to cash, the proposed rule would require a fund assessing the liquidity of a portfolio asset to consider the size of the fund's position in that asset.[235] Staff outreach has shown that many funds currently consider this factor in evaluating the liquidity of their portfolio positions. A fund would be required to consider the size of its position in a particular portfolio asset relative to the asset's average daily trading volume and, as applicable, the number of units of the asset outstanding.[236] Small-capitalization securities are generally less liquid than large-capitalization securities[237] and, as discussed above, securities with lower trading volume are generally less liquid than securities whose trading volume is higher.[238] The size of a fund's position in a particular portfolio asset could augment the effects of these two liquidity factors. For example, if a fund holds a significant position in a small-capitalization security, this could indicate that its position is relatively illiquid.[239] Likewise, holding a large position in a thinly traded security diminishes the possibility that a fund would be able to convert a significant portion of that position to cash in order to meet redemptions. In considering the number of units of an asset that are currently outstanding, a fund may wish to take into account the extent to which units of an asset may be technically outstanding, but cannot be purchased by a member of the public (*e.g.,* shares of a company that the company has repurchased from the public, but not cancelled because the company plans to later reissue the shares, for example to cover employee stock grants). Because units of an asset that cannot be purchased by a member of the public are not able to be actively traded, this consideration could be relevant to a fund's assessment of how the size of a portfolio position relative to the number of outstanding units may affect that position's liquidity.

When a fund is evaluating the size of its position in a particular asset as a factor in assessing that position's liquidity, it would be required to consider the extent to which the timing of disposing of the position could create any market value impact.[240] Selling a large position in a particular asset into the market over a short time period could entail a negative price impact on the asset, which in turn could cause losses to the fund and its shareholders. Therefore, this consideration is relevant to determining the period in which a fund would be able to convert a particular portfolio position (or portion thereof) to cash, without affecting the value of that asset by virtue of the transaction.

i. Relationship of Asset to Another Portfolio Asset

Under proposed rule 22e–4(b)(2)(ii)(I), a fund would be required to consider, in assessing the liquidity of a position in a particular portfolio asset, whether the fund invests in the asset because it is connected with an investment in another portfolio asset. This may arise in connection with a derivatives transaction, or if the fund uses an asset for hedging or risk mitigation purposes.

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. We applied this framework to certain financing transactions in Investment Company Act Release No. 10666 ("Release 10666"), issued in 1979,[241] 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.[242] We explained in Release 10666 that "[a] segregated account freezes certain assets of the investment company and renders

[232] *See, e.g.,* HSBC, *Emerging Markets FX: Regulatory understanding a priority,* HSBC's Emerging Markets Currency Guide 2012 (Dec. 2011), *available at http://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* note 207, 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).

[233] *See, e.g.,* Stephen H. Bier, Julien Bourgeois & Joseph McClain, *Mutual Funds and Loan Investments,* The Investment Lawyer (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.").

[234] *See* proposed rule 22e–4(b)(2)(i); *supra* paragraph accompanying note 177.

[235] *See* proposed rule 22e–4(b)(2)(ii)(H).

[236] Proposed rule 22e–4(b)(2)(ii)(H).

[237] *See, e.g.,* DERA Study, *supra* note 39, at p. 27; *cf. also* Amy K. Edwards, Lawrence E. Harris & Michael S. Piwowar, *Corporate Bond Market Transaction Costs and Transparency,* 62 J. Fin. 1421, 1444 (June 2007) ("Large issues have significantly lower transaction costs than do small issues.").

[238] *See supra* section III.B.2.b.

[239] *See, e.g.,* Marshall E. Blume & Donald B. Keim, *Institutional Investors and Stock Market Liquidity: Trends and Relationships* (Aug. 21, 2012), *available at http://papers.ssrn.com/sol3/papers.cfm?abstract_id=2147757* (examining the relation between illiquidity and two measures of institutional stock ownership—the percentage of a stock owned by institutions and the number of institutions that own the stock—and finding that the number of institutions that own and trade a stock is more important than the percentage of institutional ownership in explaining the cross-sectional variability of illiquidity ("an increase in the number of institutional holders of a stock decreases the average number of shares of the stock held by individual institutions and, thereby, reduces the potential size of a trade and its accompanying liquidity-induced impact")).

[240] Proposed rule 22e–4(b)(2)(ii)(H).

[241] Securities Trading Practices of Registered Investment Companies, Investment Company Act Release No. 10666 (Apr. 18, 1979) [44 FR 25128 (Apr. 27, 1979)] ("Release 10666").

[242] *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)] ("Investment Company Derivatives Use Concept Release") (providing background information on the application of section 18 to derivatives and certain other transactions).

such assets unavailable for sale or other disposition.''[243] We also stated in Release 10666 that only liquid assets should be placed in a segregated account. Thus, although we expect that assets used by a fund to cover derivatives and other transactions would be liquid when considered in isolation, when evaluating their liquidity for purposes of the proposed rule, 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.'' 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. Release 10666 notes that segregated assets may be ''replaced by other appropriate non-segregated assets of equal value,'' and when they are so replaced, formerly segregated assets would no longer be considered unavailable for sale or other disposition.[244] When a formerly segregated asset is no longer segregated, a fund generally should assess, as part of its ongoing review of the liquidity classifications assigned to each portfolio position, whether the liquidity classification given to the portfolio asset when it was segregated continues to be appropriate.[245]

A fund may purchase an asset in connection with its holding of another asset for other reasons, such as hedging. For example, a fund might purchase a debt security denominated in a foreign currency and attempt to hedge the currency risks associated with the debt security by entering into a currency future. When evaluating the liquidity of the currency future, the fund should consider the way the currency future is being used in the fund's portfolio. In situations where a fund purchases a more liquid asset in connection with a less liquid asset, and it plans to transact in the more liquid asset only in connection with the less liquid asset, then the liquidity of the two assets is linked by the fund and, in this case, the fund should consider the liquidity classification of the foreign debt security when determining the liquidity of the currency future.

j. Request for Comment

We request comment on the proposed factors that a fund would be required to consider, as applicable, in classifying the liquidity of each portfolio position in a particular asset.

- What factors do funds currently use to assess and classify the liquidity of portfolio assets, and do the proposed factors reflect factors that funds already consider when evaluating portfolio assets' liquidity? Do commenters agree that requiring a fund to consider certain factors would encourage effective liquidity assessment across the fund industry? Would considering certain factors improve funds' ability to meet their redemption obligations and to reduce potential dilution of non-redeeming shareholders? Would classification generally enhance funds' liquidity risk management, including funds' ability to meet their redemption obligations and to reduce potential dilution of non-redeeming shareholders?
- Should any of the proposed factors not be required to be considered by a fund in making liquidity determinations? Should any of the proposed factors be modified? Are there any additional factors, besides the proposed factors, that a fund should be required to consider in evaluating the liquidity of a portfolio position in a particular asset? Should the proposed rule text be modified to explicitly exempt certain types of funds from considering certain factors? Or are there additional factors, besides the proposed factors, that should be required to be considered by certain types of funds? Should funds be required to consider correlations between asset classes more generally, outside the derivatives and hedging contexts? Should certain factors be given more weight than others? Should proposed rule 22e–4 explicitly require a fund to classify the liquidity of a position (or 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? Should the Commission 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? What types of operational challenges would arise in connection with considering the liquidity of a particular portfolio asset in relation to the liquidity of another asset?
- Instead of codifying the factors as part of proposed rule 22e–4, should the Commission solely provide guidance as to what would be appropriate for a fund to consider in assessing its portfolio assets' liquidity? Why or why not? Would the failure to codify the factors diminish how consistently they are applied across the industry?
- Would a more principles-based approach, in lieu of codified factors or guidance, be more appropriate? For example, would it be less costly to implement and allow more flexible use of factors that might be more pertinent in analyzing the liquidity of a particular asset? Or would a more principles-based approach not materially advance portfolio asset liquidity assessments beyond those conducted today under the 15% guidelines, and thus be subject to similar limitations as discussed above as a stand-alone method for liquidity assessment?
- To the extent that a fund lacks pertinent information about a particular portfolio asset, should the fund be required to consider the proposed rule 22e–4(b)(2)(ii) factors with respect to appropriate comparable assets? What characteristics of the portfolio asset and the comparable asset would a fund generally compare in determining the weight to ascribe to the comparable asset's liquidity in evaluating the portfolio asset's liquidity?
- Should ETFs and ETMFs be governed by the same, a subset of, or different factors? If so, which factors and why?

We seek comment on the Commission's guidance regarding each of the proposed factors.

- Besides the guidance, are there any other specific issues associated with any of the proposed factors that a fund may wish to consider in evaluating the liquidity of a portfolio position in a particular asset?
- Do commenters generally agree with the guidance that we have proposed regarding the ways that each of the proposed factors could indicate relative liquidity or illiquidity of a portfolio asset? Should we add a note to rule 22e–4 indicating that the release includes additional guidance regarding the proposed factors?

3. Ongoing Review of the Liquidity of a Fund's Portfolio Positions

a. Proposed Ongoing Review Requirement

Proposed rule 22e–4(b)(2)(i) would require a fund to review the liquidity classification of each of the fund's portfolio positions on an ongoing basis. As appropriate, a fund could determine to revise its liquidity classification of a portfolio position based on this ongoing

[243] *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 by designating such assets on its books, rather than establishing a segregated account at its custodian).

[244] *See* Release 10666, *supra* note 241.

[245] *See infra* section III.B.3.a.

review requirement. 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.''[246] 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 under section 22(e).[247] We agree that a fund should monitor the liquidity of its portfolio holistically, in light of shareholder flows, to determine the fund's capacity to meet its redemption obligations.[248] However, decreased liquidity of individual portfolio components can directly affect the ability of a fund to meet its redemption obligations, or to meet obligations in a manner that does not dilute the interests of non-redeeming shareholders.[249] We thus believe that requiring a fund to review position-level liquidity classifications made under proposed rule 22e–4 on an ongoing basis would reduce the risk that the fund will be unable to meet its redemption obligations and reduce potential dilution of shareholders' interests.

As discussed above, Commission staff understands, based on outreach to the fund industry and information provided by industry participants, that different funds employ varying approaches to monitoring the liquidity of individual assets and positions. We understand that some funds may not normally review the liquidity of individual portfolio assets on a continuing basis after they are acquired. On the other hand, our staff learned through outreach efforts across the fund industry that certain funds periodically reassess the liquidity of each portfolio security based on market-wide developments, as well as events affecting particular securities or asset classes.[250]

Pursuant to the proposed ongoing review requirement, each fund would be required to consider the rule 22e–4(b)(2)(ii) factors, as applicable, in reviewing its portfolio positions' liquidity on an ongoing basis.[251] However, beyond this, rule 22e–4 does not include prescribed review procedures, nor does it incorporate specific developments that a fund must monitor. A fund may wish to determine the frequency of its ongoing review of 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, in order to evaluate whether its portfolio acquisitions are in compliance with the three-day liquid asset minimum requirement.[252] For example, a fund whose portfolio assets' liquidity could depend significantly on current market conditions should generally review the liquidity classifications of its portfolio assets relatively often (up to daily, or even hourly, depending on facts and circumstances). On the other end of the spectrum, it may be appropriate for a fund whose portfolio holdings' liquidity tends to be more stable (for example, a large-cap equity fund) to consider reviewing the liquidity classifications of its portfolio assets less frequently.[253]

In adopting ongoing review policies and procedures, a fund generally should include policies and procedures for identifying 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. For instance, 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.[254] Security- and asset-class specific developments that a fund may wish to consider include corporate events (such as bankruptcy, default, or delisting, as well as reputational events) and regulatory changes affecting certain asset classes. Any of these developments could cause changes, for example, in the frequency of trades or quotes for a particular asset, as well as changes to that asset's trading volume, price volatility, and bid-ask spreads.

b. Request for Comment

We request comment on the proposed ongoing review requirement.

- How do funds currently monitor the liquidity of portfolio assets, and how frequently do they do so? To what extent do funds anticipate that the ongoing review procedures that would be required under proposed rule 22e–4 would replicate the procedures funds currently use to monitor whether portfolio assets are limited by the 15% guideline? Are current processes largely automated? Do funds believe that systems could be used to automate the monitoring that would be required under proposed rule 22e–4? What trade-offs or risks does automated monitoring pose vis-à-vis manual monitoring, and how do firms currently manage those risks? Are there circumstances in which automated monitoring is inappropriate, and, if so, why?
- Is the ongoing review requirement, as proposed, sufficiently clear? Are there certain approaches to ongoing review that we should require and/or on which we should provide guidance? Should we specify a minimum time period for funds to review their liquidity classifications under proposed rule 22e–4? Should we require that a fund monitor for certain specified developments or events, and/or expand our guidance on the market-wide and security- and asset-class-specific developments that a fund could consider?

C. Assessing and Managing a Fund's Liquidity Risk

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) of the Investment Company Act, 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. Proposed rule 22e–4(a)(7) would define liquidity risk as the risk that the 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 net asset value. This proposed definition contemplates that a fund consider both expected requests to redeem (*e.g.,* shareholder flows relating to seasonality or shareholder tax considerations), as well as requests to redeem that may not be expected, but are reasonably

[246] Guidelines Release, *supra* note 4, at section II.

[247] *See* ICI Valuation and Liquidity Issues White Paper, *supra* note 177, at 45.

[248] *See* Guidelines Release, *supra* note 4, at section II. (stating, with respect to the Commission's expectation that a fund would monitor its portfolio liquidity, ''For example, an equity fund that begins to experience a net outflow of assets because investors increasingly shift their moneys from equity to income funds should consider reducing its holdings of illiquid securities in an orderly fashion in order to maintain liquidity.'').

[249] *See, e.g.,* Heartland Release, *supra* note 47.

[250] *See also, e.g.,* ICI FSOC Notice Comment Letter, *supra* note 16, at 23–25 (''A mutual fund manager's liquidity management practices typically will include active monitoring of the liquidity profile of individual portfolio holdings.'').

[251] *See* proposed rule 22e–4(b)(2)(i)–(ii).

[252] *See infra* section III.C.3 (discussion of three-day liquid asset minimum requirement).

[253] We note that at a minimum, a fund would review its liquidity classification at least monthly in order to accurately report this information on proposed Form N–PORT.

[254] *See, e.g.,* 2014 Fixed Income Guidance Update, *supra* note 62.

foreseeable under stressed conditions (*e.g.,* shareholder outflows related to stressed market conditions or increased volatility, or outflows that are reasonable to expect in light of a reputational event affecting the fund or the departure of a fund's portfolio manager).[255]

A fund's liquidity risk depends on a variety of factors, including, among others, its cash flows, investment strategy, portfolio liquidity, use of borrowings and derivatives, cash (and cash equivalents) on hand, and borrowing arrangements.[256] Staff outreach has shown that funds consider these types of factors in assessing their liquidity risk, and some funds conduct stress tests (incorporating these factors) to analyze various redemption scenarios to determine whether the fund has sufficient liquid assets to cover different levels of redemptions.[257] Likewise, we understand that a fund may employ many different policies and procedures for managing its liquidity risk, including adjusting portfolio composition to withstand potential liquidity stresses, maintaining bank lines of credit or other borrowing arrangements, requesting notification from large shareholders about possible upcoming redemptions, and other similar risk management techniques. In addition, some fund complexes have established a dedicated risk management function, with independent risk oversight. Other funds, however, employ substantially less comprehensive liquidity risk assessment and management practices and procedures. These funds, for example, may have little coordination between the compliance personnel who monitor the fund's adherence to the 15% guideline, and the portfolio and risk management personnel who assess the liquidity profile of portfolio assets. Staff outreach has shown that it is fairly common for a fund not to have adopted a specific liquidity risk management program, but instead to rely primarily on the portfolio management process to consider liquidity risk when making portfolio management decisions. While a fund's portfolio management function has access to a great deal of information relevant to the liquidity of the fund's portfolio assets, and thus pertinent to the fund's liquidity risk, portfolio managers may have competing interests that could potentially impede effective liquidity risk management. For example, depending on the circumstances, a fund's portfolio manager could be reluctant to invest a portion of the fund's assets in highly liquid assets, which may be appropriate for liquidity risk management purposes, but that the manager believes could cause a fund's performance to lag compared to similar funds or the fund's benchmark.[258] In sum, our staff has found that the comprehensiveness as well as the independence of funds' liquidity risk management vary significantly.

Because we are concerned with funds' ability to meet their redemption obligations and to mitigate shareholder dilution associated with redemptions, we are proposing new requirements for assessing and managing funds' liquidity risk. Proposed rule 22e–4(b)(2)(iii) would require a fund to assess and periodically review its liquidity risk, taking into account certain factors. Proposed rule 22e–4(b)(2)(iv) would require a fund to manage its liquidity risk based on this assessment, including: (i) Requiring the fund to determine (and periodically review) a minimum percentage of the fund's net assets that must be invested in three-day liquid assets (the fund's ''three-day liquid asset minimum''); [259] (ii) prohibiting a fund from acquiring any less liquid asset if the fund would have invested less than its three-day liquid asset minimum in three-day liquid assets; [260] and (iii) prohibiting a fund from acquiring any 15% standard asset if the fund would have invested more than 15% of its net assets in 15% standard assets.[261]

We are proposing these new requirements with the goal of providing funds with the flexibility to adopt policies and procedures that would be most appropriate to assess and manage their liquidity risk, while at the same time reducing the risk that funds will be unable to meet redemption obligations, minimizing dilution, and elevating the overall quality of liquidity risk assessment and management across the fund industry. Given that a fund's liquidity risk arises from the interaction of multiple discrete and overlapping factors, we believe that the most effective liquidity risk management programs would be multi-faceted and customized to reflect the sources of the fund's liquidity risk. The requirements that we are proposing are therefore intended to be largely principles-based and would permit a fund to tailor its risk assessment and management procedures to respond to the fund's particular risks and circumstances. On the other hand, we also believe that requiring each fund to consider, as a baseline, a standard set of factors for assessing liquidity risk, requiring each fund to keep a minimum portion of net assets in cash and assets that the fund believes are convertible to cash within three business days without materially affecting the value of the asset (which minimum each fund would determine based on standard factors), and limiting a fund's holdings of 15% standard assets would create an overall framework that we believe would assist the development of effective and thorough liquidity risk assessment and management across the fund industry, thereby strengthening the ability of funds to meet redemption obligations

[255] *See, e.g., infra* section IV.C.1.e (discussing why we do not believe that a general stress testing requirement would be an adequate substitute for the proposed three-day liquid asset requirement).

[256] *See infra* section III.C.1; *see also* Nuveen FSOC Notice Comment Letter, *supra* note 45, at 10–11 (stating that mutual funds that could have liquidity challenges in difficult markets include those that invest not only in less liquid asset classes, but also those with larger investor concentrations, with fund flows particularly sensitive to changes in the returns of the markets in which they invest, that hold a large amount of a single issuance or a high percentage of its average daily trading volume, with meaningful use of effective leverage, and that invest in assets that do not have contractual settlement periods and tend to settle over longer periods than ordinary securities).

[257] *See supra* text following note 100; *see also supra* note 104 (discussing Commission initiative to require large investment companies and investment advisers to engage in annual stress tests as required by section 165(i) of the Dodd-Frank Act); BlackRock FSOC Notice Comment Letter, *supra* note 50, at 6 (stating that among several overarching principles that provide the foundation for a prudent market liquidity risk management framework for collective investment vehicles is estimating ''potential fund redemptions based on (a) historical behavior under normal as well as under adverse market conditions, and (b) monitoring investor profiles and related redemption behaviors to help identify potential liquidity needs, recognizing the differences between institutional and retail investors, large and small investors, categories of assets (*e.g.,* retirement versus non-retirement assets), and the platforms on which funds are sold (*e.g.,* self-directed versus through an intermediary''); AII FSOC Notice Comment Letter, *supra* note 50, at 15 (''investment advisers to mutual funds continually review a broad series of metrics to evaluate the current adequacy of the fund's liquidity position. These include historic data regarding redemption request levels, stressing the historic redemption levels, assessing levels of liquidity of categories of assets held by the fund based on industry standards, assessing current and expected market conditions of the types of asset held by the fund and then assessing liquidity in those various market conditions.'').

[258] *But see* Mikhail Simutin, *Cash Holdings and Mutual Fund Performance,* 18 Rev. of Fin. 1425 (2013) (''Simutin'') (''Cash holdings of equity mutual funds impose a drag on fund performance but also allow managers to make quick investments in attractive stocks and satisfy outflows without costly fire sales. This article shows that actively managed equity funds with high abnormal cash—that is, with cash holdings in excess of the level predicted by fund attributes—outperform their low abnormal cash peers by over 2% per year.'').

[259] Proposed rule 22e–4(b)(2)(iv)(A)–(B).

[260] Proposed rule 22e–4(b)(2)(iv)(C).

[261] Proposed rule 22e–4(b)(2)(iv)(D). In addition, proposed rule 22e–4(b)(2)(iv)(E) would require a fund to establish 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.

and mitigating dilution of the interests of fund shareholders.

1. Assessing a Fund's Liquidity Risk

Proposed rule 22e–4 envisions a two-pronged liquidity risk assessment and risk management process, whereby a fund would be required to assess its liquidity risk, based on certain specified factors, and then develop a liquidity risk management program tailored to the fund's liquidity risk.[262] Here we discuss the liquidity risk assessment portion of this process. The requirements we are proposing for the fund's management of the risks identified by this assessment are discussed in a later section of the release.[263] Proposed rule 22e–4(b)(2)(iii) would require each fund to assess the fund's liquidity risk, considering certain specified factors that are discussed in more detail below. We compiled these factors based, in part, on staff outreach to funds and third-party service providers who assess liquidity risk on behalf of funds. To the extent that funds currently conduct liquidity stress tests, we understand that these stress tests commonly incorporate many of the proposed factors (or functionally similar factors).[264] The proposed liquidity risk factors also incorporate considerations that we believe have historically contributed to liquidity risk in open-end funds.[265]

The proposed rule would require each fund to take the following factors into account, as applicable, in assessing the fund's liquidity risk:

- Short-term and long-term cash flow projections, taking into account the following considerations:
  - 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
- The fund's investment strategy and liquidity of portfolio assets;
- Use of borrowings and derivatives for investment purposes; and
- Holdings of cash and cash equivalents, as well as borrowing arrangements and other funding sources.

This list is not meant to be exhaustive. In assessing its liquidity risk, a fund may take into account considerations in addition to the factors set forth in proposed rule 22e–4(b)(2)(iii). For example, if a fund elects to conduct stress testing[266] to determine whether it has sufficient liquid assets to cover different levels of redemptions, a fund should consider incorporating the results of this stress testing into its liquidity risk assessment. However, a fund would be required to consider, as applicable, the proposed rule 22e–4(b)(2)(iii) factors as a minimum set of considerations to be used in assessing its liquidity risk. For this reason, a fund that elects to conduct stress tests may wish to review the factors and parameters it uses to construct scenario analyses concerning the adequacy of the fund's portfolio liquidity, and update these factors and parameters to reflect the proposed liquidity risk assessment factors. We believe that stress tests that incorporate the proposed factors, though not required, could be particularly useful to a fund in assessing its liquidity risk.

We recognize that some of the proposed factors may not be applicable in assessing the liquidity risk of certain funds or types of funds. For example, we recognize that certain considerations that the proposed rule would require a fund to consider in assessing its cash flow projections (*e.g.,* shareholder ownership concentration, and the fund's distribution channels) would generally be more applicable to mutual funds than to ETFs. To the extent that a proposed factor is not applicable to a particular fund, the fund would not be required to consider that factor in assessing its liquidity risk.

Below we provide guidance on specific issues associated with each of the proposed liquidity risk assessment factors. We also request comment below with respect to each of the proposed factors, as well as guidance regarding each factor.

a. Cash Flow Projections

A fund's cash flow (the amount of cash flowing either into or out of the fund) is important in determining whether the fund will have sufficient cash to satisfy redemption requests.[267] Cash flow projections thus directly affect a fund's liquidity risk.[268] As discussed below, we believe that several factors influence the extent to which a fund's cash flow profile could indicate or contribute to the fund's liquidity risk. Proposed rule 22e–4(b)(2)(iii)(A) thus would require a fund to consider these factors when evaluating its liquidity risk. In general, we believe that the better a fund's portfolio and 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.[269] 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, which 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.[270]

[262] To the extent that liquidity risk differs among each series of an investment company, each series would be required to adopt a liquidity risk management program whose liquidity risk assessment and management elements are distinct from other series' programs. *See supra* paragraph accompanying notes 114–115.

[263] *See infra* sections III.C.3–III.C.5.

[264] *See supra* notes 101, 257 and accompanying text.

[265] *See* Guidelines Release, *supra* note 4 (noting that funds should consider cash flows into specific investment strategies in determining whether the fund is maintaining an adequate level of liquidity).

[266] *See supra* notes 101, 257 and accompanying text.

[267] *See, e.g.,* Invesco FSOC Notice Comment Letter, *supra* note 35, at 11(''Cash inflows from sources such as gross subscriptions (including reinvested dividends on fund shares), dividend and interest payments on portfolio securities and maturities of debt securities held in portfolios do help manage fund level liquidity and are taken into account by portfolio managers as part of their liquidity management.''); ICI FSOC Notice Comment Letter, *supra* note 16, at 18 (''Managing liquidity as part of overall portfolio management is a dynamic process requiring fund managers to make daily adjustments to accommodate cash inflows and outflows. . . . Portfolio managers and traders typically receive data on cash flows at least daily and thus have a strong sense of whether additional actions (including the sale of portfolio holdings) would be needed to meet redemption requests or otherwise adjust a fund's liquidity profile.'').

[268] Proposed rule 22e–4(a)(7).

[269] *See, e.g.,* Gordon J. Alexander, Gjergji Cici & Scott Gibson, *Does Motivation Matter When Assessing Trade Performance? An Analysis of Mutual Funds,* 20 Rev. of Fin. Stud. 125 (Jan. 2007) (noting that unexpected investor flows may force managers to rebalance their portfolios to control liquidity, and that these liquidity-related trades should underperform trades motivated by valuation beliefs).

[270] *See, e.g., supra* note 54 and accompanying paragraph; Coval & Stafford, *supra* note 51 (noting that fire sales can be anticipated based on past flows and returns); Peter Fortune, *Mutual Funds, Part I: Reshaping the American Financial System,* New England Econ. Rev. (July/Aug. 1997), at 66–67, (''Fortune''), *available at http://www.bostonfed.org/economic/neer/neer1997/neer497d.htm* (positing that funds with insufficient liquidity to meet redemption requests following a significant decline in stock prices will need to sell securities in a declining market, making the funds more sensitive to price fluctuations); 1987 Market Crash Report, *supra* note 54, at III–16—III–26, IV–1—IV–8 (discussing mutual fund selling behavior during the October 1987 stock market crash, and in particular the selling of three mutual fund companies, whose heavy selling of assets to meet significant redemptions ''accounted for approximately one quarter of all trading on the NYSE for the first 30

Continued

A fund would be required to consider the size, frequency, and volatility of historical purchases and redemptions of fund shares, during both normal and stressed periods, when considering its cash flow projections.[271] A fund whose inflows generally correspond to its outflows in terms of timing, size, frequency, and response to market events will likely be able to use cash received from purchases to pay redeeming shareholders, which decreases the fund's liquidity risk. Funds whose net flows are relatively less volatile in terms of size and frequency will likely entail less liquidity risk than similar funds with more volatile net flows, because funds with less flow volatility can better plan how to meet fund redemptions and thus will be less likely to need to sell portfolio assets in a manner that creates a market impact in order to pay redeeming shareholders.[272] 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 stressed and normal periods (keeping in mind that historical experience may not necessarily be indicative of future outcomes, depending on changes in market conditions and the fund's particular circumstances). In particular, if outflows are greater, more frequent, or more volatile during stressed periods, this could exacerbate the fund's liquidity risk.[273] 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). In addition to considering its own historical flow data, a fund, particularly a fund without a substantial operating history, may wish to consider purchase and redemption activity in funds with similar investment strategies. 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.

A fund may wish to evaluate whether the size, frequency, and volatility of its shareholder flows follow any discernable pattern. For example, patterns in shareholder flows have been observed relating to seasonality,[274] shareholder tax considerations,[275] fund advertising,[276] and changes in fund performance ratings provided by third-party rating agencies.[277] A fund's investment strategy also could contribute to its shareholder flows: 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.[278] Furthermore, a fund may wish to take into account its assets in assessing historical flow data, since smaller funds may experience greater flow volatility.[279]

While historical redemption patterns are an important factor in assessing cash flows, a fund should be cognizant of the limitations of using past flow history to assess future cash flow needs. Therefore, a fund would be required to take into account other factors when considering cash flow projections, including its redemption policies.[280] Specifically, we believe a fund should generally consider the disclosures in its prospectus or advertising materials regarding the time period in which it will pay redemption proceeds (or endeavor to pay redemption proceeds),[281] and whether its redemption policies vary based on the distribution channels the fund employs. A fund whose policies require it to pay redeeming shareholders on a next-day basis could find itself with fewer options for managing high levels of redemptions than a fund that is bound only by the redemption timing requirements of rule 15c6–1. 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 pursuant to the timing requirements of rule 15c6–1

minutes that the Exchange was open'' on October 19, 1987 and that such selling had ''a significant impact on the downward direction of the market'').

[271] Proposed rule 22e–4(b)(2)(iii)(A)*(1).*

[272] *See, e.g.,* Thomas M. Idzorek, James X. Xiong & Roger G. Ibbotson, *The Liquidity Style of Mutual Funds,* 68 Fin. Analysts J. 38 (2012), at n.4, *available at http://corporate.morningstar.com/us/documents/MethodologyDocuments/ResearchPapers/LiquidityStyleOfMutualFunds.pdf* (noting that funds with less volatile fund flows can afford to hold more illiquid stocks because they can accommodate redemptions with the liquid portion of their portfolios).

[273] *See, e.g., supra* note 270.

[274] *See, e.g.,* Mark J Kamstra, et al., *Seasonal Asset Allocation: Evidence from Mutual Fund Flows* (Dec. 2013), *available at http://www.bus.umich.edu/ConferenceFiles/2014-Mitsui-Finance-Symposium/files/Kramer_Seasonal_Asset_Allocation.pdf* (''[W]e find that aggregate investor flow data reveals a preference for U.S. money market and government bond mutual funds in the autumn, and equity funds in the spring, controlling for the influence of seasonality in past performance, advertising, liquidity needs, and capital gains overhang on fund flow. This movement of large amounts of money between fund categories is correlated with a proxy for variation in risk aversion across the seasons, consistent with households' revealed preferences for safer investments in the fall, and riskier investments in the spring.''); Hyung-Suk Choi, *Seasonality in Mutual Fund Flows,* 31 J. of Applied Bus. Research 715 (Mar./Apr. 2015), *available at http://www.cluteinstitute.com/ojs/index.php/JABR/article/viewFile/9162/9156* (''January is the month when equity funds experience the largest net cash flows and December is the month with the smallest cash flows.'').

[275] *See, e.g.,* 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* (''Johnson & Poterba'') (finding a ''modest'' decline in inflows into mutual funds by taxable investors prior to a capital gains distribution date); Brad M. Barger & Terrance Odean, *Are Individual Investors Tax Savvy? Evidence from Retail and Discount Brokerage Accounts,* 88 J. of Pub. Econ. 419 (Jan. 2004), *available at http://faculty.haas.berkeley.edu/odean/papers%20current%20versions/areindividualinvestorstaxsavvy_2003.pdf* (observing tax losses being related at greater rates than gains only in the month of December).

[276] *See, e.g.,* Murat Aydogdu & Jay W. Wellman, *The Effects of Advertising on Mutual Fund Flows: Results from a New Database,* Financial Management (Fall 2011), *available at http://onlinelibrary.wiley.com/doi/10.1111/j.1755-053X.2011.01161.x/epdf* (finding significant differences in the effectiveness of mutual fund advertising to attract inflows *(e.g.,* smaller funds received significant inflows due to advertising, while ''flagship'' funds did not attract inflows as a result of their advertisements)).

[277] *See, e.g.,* Diane Del Guercio & Paula A. Tkac, *Star Power: The Effect of Morningstar Ratings on Mutual Fund Flow,* 43 J. of Fin. and Quantitative Analysis 907 (Dec. 2008), *available at http://www.jstor.org/stable/27647379?seq=1#page_scan_tab_contents* (finding that certain changes in performance ratings (rather than changes in the underlying fund performance) have a substantial influence on retail investors inflows into and outflows from mutual funds).

[278] *See, e.g.,* 2015 ICI Fact Book, *supra* note 3, at 13 (''Investment managers, including mutual funds and pension funds, use ETFs to manage liquidity—helping them manage their investor flows and remain fully invested in the market. Asset managers also use ETFs as part of their investment strategies, including as a hedge against their exposure to equity markets.''); *see also* Izhak Ben-David, Francesco A. Franzoni & Rabih Moussawi, *Do ETFs Increase Volatility?,* NBER Working Paper No. 20071, at 12, *available at http://www.nber.org/papers/w20071.pdf* (''Theoretical support for this conjecture comes from Amihud and Mendelson (1986) and Constantinides (1986), who propose that investors with shorter holding periods self-select into assets with lower trading costs. Atkins and Dyl (1997) find support for this conjecture by showing that securities with lower bid-ask spread have higher trading volume. These theories and empirical evidence suggest that, due to the low trading costs of ETFs, a new clientele of high-frequency investors can materialize around the newly created securities. This clientele would not trade the less-liquid underlying assets if ETFs were not present.'').

[279] *See infra* notes 726 and 727.

[280] Proposed rule 22e–4(b)(2)(iii)(A)*(2).*

[281] *See* Item 6(b) of Form N–1A (requiring a fund to briefly identify the procedures for redeeming shares); proposed amendments to Item 11 of Form N–1A (requiring funds to disclose the number of days in which a fund will pay redemption proceeds to redeeming shareholders, and explain if the number of days differs by distribution channel); *infra* section III.G.1.a (discussing proposed amendments to Item 11 of Form N–1A).

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 space out the sale of portfolio assets in order 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.[282] An ETF that typically pays redemption proceeds in kind should generally also consider that it has reserved the right to transact with authorized participants in cash, the circumstances in which it anticipates that it would pay redemption proceeds in cash, and how these policies impact its cash flow projections.

A mutual fund also would be required to consider its shareholder ownership concentration as a factor affecting its cash flow projections.[283] If a mutual fund's shares are concentrated in a relatively small group of shareholders, one shareholder's redemptions of fund shares could result in considerable cash outflows from the fund.[284] This in turn could increase the mutual fund's liquidity risk if the fund does not have procedures in place to manage large redemptions, particularly if the fund were to encounter unexpected redemptions from a large shareholder. For these reasons, we believe a mutual 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, shareholders could be more likely to redeem precipitously, and resulting unexpected redemptions by a shareholder with a large ownership stake could cause significant liquidity stresses to the fund).

There are multiple ways that a mutual fund's distribution channels could affect its cash flows (including the predictability of the fund's cash flows), and the proposed rule would require a mutual fund to consider this factor in evaluating its cash flows and related liquidity risk.[285] First, a mutual fund's redemption practices could depend on its distribution channels. For example, mutual funds that are sold through broker-dealers will have to meet redemption requests within three business days, because rule 15c6–1 under the Exchange Act establishes a T+3 settlement period for securities trades effected by a broker or dealer. Second, to the extent that mutual fund shares are held through omnibus accounts, it could be difficult for a mutual fund to be fully aware of the composition of the underlying investor base,[286] including investor characteristics that could affect the mutual fund's short-term and long-term flows (*e.g.,* whether ownership in the mutual fund is relatively concentrated,[287] and whether the mutual fund's underlying investors share any common investment goals affecting redemption frequency and timing). Finally, a mutual fund's distribution channels could affect its cash flow predictions insofar as certain distribution channels are generally correlated with particular purchase and redemption patterns. For instance, investors in mutual funds distributed through a retirement plan channel or other planned savings channel (*e.g.,* funds underlying a 529 plan) [288] 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. Investors in mutual funds distributed through certain channels also may have similar purchase and redemption characteristics relating to their financial and tax-related needs. 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.[289]

Finally, a fund would be required to consider the degree of certainty surrounding its short-term and long-term cash flow projections.[290] A fund could consider the length of its operating history (including the fund's experience during points of market instability, illiquidity, or volatility), any observed purchase and redemption patterns, and the applicable other factors set forth in proposed rule 22e–4(b)(2)(iii)(A) in determining the level of certainty the fund has regarding its cash flows. A fund may find it instructive to employ ranges in considering cash flow projections and their relationship to liquidity risk. For instance, a fund that could reasonably project that its cash flows will fall within a relatively narrow range could more precisely assess its liquidity risk than a fund that could reasonably project a broader range of projected cash flows. If a fund has implemented policies to encourage certain shareholders (*e.g.,* large shareholders, or certain types of shareholders such as 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 certainty surrounding its cash flow projections.[291]

b. Investment Strategy and Liquidity of Portfolio Assets

Under proposed rule 22e–4, a fund's procedures for assessing its liquidity risk must take into account the effects that the fund's investment strategy and the liquidity of its portfolio assets could have on the fund's liquidity risk.[292] A fund's investment strategy could increase or decrease the fund's liquidity risk in various ways. For example, whether a fund is actively or passively managed could have ramifications on the fund's liquidity. On one hand, a fund with a passive investment strategy could have less liquidity risk relative to an actively managed fund that invests in a similar portfolio, to the extent that the portfolio of the passively managed fund is built around a widely followed market index (securities that are

[282] *See supra* note 270.

[283] Proposed rule 22e–4(b)(2)(iii)(A)*(3).*

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

[285] Proposed rule 22e–4(b)(2)(iii)(A)*(4).*

[286] *See, e.g.,* Board of the IOSCO, *Principles of Liquidity Risk Management for Collective Investment Schemes* (Mar. 2013), at 5, *available at http://www.iosco.org/library/pubdocs/pdf/IOSCOPD405.pdf* (''The responsible entity should consider liquidity aspects related to its proposed distribution channels.'').

[287] *See supra* notes 283–284 and accompanying text.

[288] A 529 plan is a tax-advantaged plan designed to encourage saving for future college costs that is sponsored by a state, state agency, or educational institution and is authorized by section 529 of the Internal Revenue Code.

[289] *See* Johnson & Poterba, *supra* note 275; *see also supra* note 274 and accompanying text (discussing seasonality in mutual fund flows).

[290] Proposed rule 22e–4(b)(2)(iii)(A)*(5).*

[291] We understand, based on staff outreach, that advance notification procedures are a relatively common liquidity risk management tool that funds currently employ. *See also* Invesco FSOC Notice Comment Letter, *supra* note 35, at 11 (noting that Invesco has advance notification arrangements regarding anticipated redemptions above certain levels in place with certain distribution partners).

[292] Proposed rule 22e–4(b)(2)(iii)(B).

components of such an index are generally more liquid than securities that are not).[293] An index-tracking fund also may be more likely to sell a ''strip'' of the portfolio (*i.e.,* a cross-section or representative selection of the fund's portfolio assets) to meet net redemptions, which minimizes the outcome that the fund would sell its most liquid assets first, in order to continue to closely track the applicable benchmark. On the other hand, index-based strategies could exhibit increased liquidity risk during periods when an index is being reconstituted, if the index reconstitution results in multiple funds simultaneously attempting to get into or out of the same portfolio position.[294] Index-based strategies also could experience increased liquidity risk when the assets in the index become less liquid due to market events, because the fund's manager will have less discretion to move the fund's strategy away from the index's assets. In addition, index-based strategies that track less-liquid market indices may exhibit more liquidity risk than passively managed funds built around widely-followed market indices.[295]

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 as well. A fund's status as a diversified investment company under the Investment Company Act,[296] its status as a regulated investment company under Subchapter M of the Internal Revenue Code,[297] and its principal investment strategies as disclosed in its prospectus all could affect the fund's liquidity risk.[298] For example, a fund constrained by various diversification requirements that needs to sell portfolio securities in order to meet redemption requests could be limited by its diversification obligations in determining which portfolio securities it will sell. Such a fund might need to unwind certain portfolio positions under unfavorable circumstances. A fund whose investment strategy requires it to invest a certain percentage of its assets in a particular asset class, industry segment, or securities associated with a particular geographic region could encounter similar limitations, if selling certain portfolio securities would cause the fund to not be in compliance with its investment strategies. On the other hand, a fund with a relatively more-diversified portfolio needing to sell portfolio assets to build liquidity would possibly be able to select assets for sale based on whether the markets for those assets are favorable. A relatively less-diversified fund may have fewer options (*i.e.,* because the markets for its portfolio assets are uniform or correlated) and could thus be compelled to transact in unfavorable markets. Such fund also may need to trade larger dollar amounts of each asset, which may increase the price impact of the trades.

In addition to diversification or concentration issues, a fund's portfolio management decisions that are meant, in part, to decrease an undesirable tax impact on the fund could affect the fund's liquidity risk. For example, a fund whose portfolio includes foreign securities might manage its portfolio to avoid securities transaction taxes imposed by other jurisdictions.[299] Similarly, a fund could be managed using an active tax loss harvesting strategy to opportunistically realize losses that may be used to offset future gains.[300] The sale of certain portfolio assets to meet liquidity needs might adversely affect these, and comparable, management practices. Consequently, a fund whose tax management strategy makes its portfolio managers unwilling to sell certain portfolio assets in order to meet redemptions could face increased liquidity risk compared to a similarly situated fund, because it could have fewer desirable options to generate cash to pay redemptions (and thus could have increased risk that it would need to sell portfolio assets under unfavorable circumstances in order to meet redemptions) than another, similar fund.

While we believe consideration of a fund's investment strategy is an important factor in assessing a fund's liquidity risk, we caution that different types of funds within the same broad investment strategy may demonstrate different levels of liquidity (and thus, presumably, different levels of liquidity risk).[301] The liquidity of a fund's portfolio assets directly affects the amount of liquidity risk associated with the fund. A fund should consider the portions of the fund's net assets that are invested in each of the six liquidity categories set forth in proposed rule 22e–4(b)(2)(i). All else being equal, funds with relatively greater portions of their assets invested in less liquid assets would tend to have greater liquidity risk than funds holding relatively fewer less liquid assets.

c. Use of Borrowings and Derivatives for Investment Purposes

Proposed rule 22e–4 would require a fund to take into account the potential effects of the use of borrowings and derivatives for investment purposes (for example, to enhance returns) on its liquidity risk.[302] Funds may borrow from a bank under section 18 of the Investment Company Act. In addition to the asset coverage limitations imposed by section 18,[303] any such borrowing 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. In addition, as noted above, 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 the guidance we provided in Release 10666, under which funds cover their obligations under such transactions by segregating certain liquid assets.[304] 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.[305] This means that a fund that receives significant redemption requests may

[293] *See supra* paragraph accompanying notes 215–216.

[294] *See, e.g.,* Antti Petajisto, *The Index Premium and Its Hidden Cost for Index Funds,* 18 J. of Empirical Fin. 271, 288 (2011), *available at http://citeseerx.ist.psu.edu/viewdoc/download?doi=10.1.1.372.3301&rep=rep1&type=pdf* (''The annual index turnover cost from 1990 to 2005 is about 21–28 bp for the S&P 500 and 38–77 bp for the Russell 2000. This is the cost of mechanically tracking the index rather than holding an essentially similar index-neutral portfolio.'').

[295] *See also* Jonathan Wheatley & Joel Lewin, *Emerging Market ETFs: Solving the Liquidity Problem or Storing it Up?,* Financial Times (Apr. 20, 2015), *available at http://www.ft.com/cms/s/0/43c52f1e-e75e-11e4-a01c-00144feab7de.html* (discussing ETFs built around emerging market corporate bond indexes).

[296] *See* section 5(b)(1) of the Investment Company Act.

[297] 26 U.S.C. 851. To qualify as a regulated investment company, a fund must meet several diversification requirements at the close of each fiscal quarter of the taxable year. *See id.*

[298] *See* Items 4(a), 9 of Form N–1A.

[299] *See, e.g.,* Karl Habermeier & Andrei Kirilenko, *Securities Transaction Taxes and Financial Markets,* IMF Working Paper (May 2001), *available at http://www.imf.org/external/pubs/ft/wp/2001/wp0151.pdf* (discussing, among other things, the effects of transaction taxes on liquidity).

[300] *See, e.g.,* Scott J. Donaldson & Francis M. Kinniry Jr., *Tax-Efficient Equity Investing: Solutions for Maximizing After-Tax Returns,* Vanguard Investment Counseling & Research (2008), *available at https://personal.vanguard.com/pdf/flgtei.pdf.*

[301] *See infra* note 627 and accompanying text.

[302] Proposed rule 22e–4(b)(2)(iii)(C). Although the use of borrowings and derivatives is a distinct factor under proposed rule 22e–4(b)(2)(iii), a fund should also consider the potential impact of borrowings and derivatives in its assessment of other factors set forth in proposed rule 22e–4(b)(2)(iii), such as the fund's cash flow projections and its investment strategy and liquidity of portfolio assets.

[303] *See infra* note 321.

[304] *See supra* section III.B.2.i.

[305] *See* Release 10666, *supra* note 241.

need to unwind a portion of its financing transactions in order make more liquid assets available for sale to fulfill such requests. Furthermore, if a fund seeks to unwind 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 assets it has available to meet redemptions. Consequently, a fund's assessment of its liquidity risk should include an evaluation of the nature and extent of its borrowings and the potential impact of borrowings on the fund's overall liquidity profile.

The use of derivatives, such as futures, forwards, swaps and written options, may also affect a fund's liquidity risk. Funds use derivatives for a wide range of purposes, including hedging or risk mitigation, but also to obtain leverage or investment exposures.[306] As noted above, 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.[307] Derivatives may therefore raise concerns that are similar to those discussed above in the context of borrowings. Funds also may be required to dispose of assets in order to post required margins 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 unwind such transactions.

Even highly liquid derivatives may present liquidity risk for some funds. For example, some funds use derivatives for cash and liquidity management purposes. A large-cap equity fund with a temporary cash position may purchase equity index futures that have lower transaction costs, shorter settlement periods and greater liquidity than a direct investment in equity securities, in order to obtain a degree of exposure to large-cap equities. While ''equitizing'' its temporary cash position in this manner may mitigate the potential performance lag associated with a cash holding, it also exposes the fund to market risk.[308] Accordingly, a fund's assessment of liquidity risk should take into account the manner and extent of its derivatives use and the structure and terms of its derivatives transactions.

In addition to the liquidity of the derivatives positions themselves, assessing 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.[309] To the extent the fund is required to make payments to a derivatives counterparty, those assets would not be available to meet shareholder redemptions.

d. Holdings of Cash and Cash Equivalents, as Well as Borrowing Arrangements and Other Funding Sources

Proposed rule 22e–4 would require a fund to consider its cash and cash equivalent holdings, as well as its borrowing arrangements and other funding sources, in assessing its liquidity risk.[310] Current U.S. generally accepted accounting principles 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.[311] Examples of items commonly considered to be cash equivalents include certain Treasury bills, agency securities, bank deposits, commercial paper, and shares of money market funds.[312] Cash and cash equivalents are extremely liquid (in that they either are cash, or could be easily and nearly immediately converted to known amounts of cash without a loss in value), and significant holdings of these instruments generally decrease a fund's liquidity risk because the fund could use them to meet redemption requests without materially affecting the fund's NAV.[313]

Entering into borrowing arrangements and agreements with other potential funding sources also could affect a fund's liquidity risk, as they could assist the fund in paying redeeming shareholders without the need to sell portfolio securities under circumstances that could impair the fund's NAV.[314] For example, in the past several decades, it has become increasingly common for fixed income funds to establish lines of credit with commercial banks.[315] When considering the extent to which a bank credit facility could affect a fund's liquidity risk, we believe a fund may find it instructive to evaluate the terms of the credit facility (*e.g.,* associated fees, the borrowing rate, and the time frame for repaying borrowed funds), the amount of the credit facility, whether the credit facility is committed or uncommitted,[316] and the financial health of the institution(s) providing the facility (especially to the extent that the fund also holds bonds or other securities issued by such institution(s), as a decrease in these securities' liquidity—caused, for example, by increased volatility of their trading prices—could contribute to an increased need to borrow from the institution). If a credit facility is shared among multiple funds within a fund family, a fund may wish to consider that the ability of that facility to mitigate the

[306] *See generally* Investment Company Derivatives Use Concept Release, *supra* note 242, at 13–17.

[307] *See supra* section III.B.2.i.

[308] Investment Company Derivatives Use Concept Release, *supra* note 242, at n.46 and accompanying text.

[309] *See* In re OppenheimerFunds, Inc., et al., Investment Company Act Release No. 30099 (June 6, 2012) (''OppenheimerFunds Release'') (settled action) (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.'').

[310] Proposed rule 22e–4(b)(2)(iii)(D).

[311] FASB Accounting Standards Codification paragraph 305–10–20l.

[312] *See* 2014 Money Market Fund Reform Adopting Release, *supra* note 85, at sections III.A.7 and III.B.6 (clarifying that the reforms to the regulation of money market funds adopted by the Commission in 2014 should not preclude an investment in a money market fund from being classified as a cash equivalent under U.S. GAAP under normal circumstances); Form PF: Glossary of Terms (defining ''cash and cash equivalents'').

[313] However, a substantial investment in cash and cash equivalents could decrease a fund's total return and/or cause a fund to diverge from its investment strategy, and thus a fund may wish to calibrate its holdings of these instruments to manage the fund's liquidity risk while taking these concerns into consideration. *But see* Simutin, *supra* note 258 (observing that actively managed equity funds with cash holdings in excess of the level predicted by fund attributes outperform their low abnormal cash peers by over 2% per year).

[314] *See supra* note 35 (noting that most funds do not frequently draw on their lines of credit).

[315] *See, e.g.,* Miles Weiss, *BlackRock Leads Funds Raising Credit Lines Amid Review,* Bloomberg (Jan. 21, 2015), *available at http://www.bloomberg.com/news/articles/2015-01-21/blackrock-leads-funds-raising-credit-lines-amid-review* (discussing an uptick in demand by funds for bank lines of credit); *see also* Fortune, *supra* note 270, at 64 (noting that lines of credit with banks were rarely available to funds prior to the mid-1980s); *infra* section III.C.5.a (Commission guidance on use of borrowing arrangements and other funding sources as a liquidity risk management control).

[316] 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. A bank can also provide an uncommitted or standby line of credit, in which the bank indicates a willingness, but no obligation, to lend to a fund. *See* Fortune, *supra* note 270, at 47.

liquidity risk of one fund within the family hinges in part on the degree of liquidity risk associated with the other funds sharing the facility. A fund also may wish to consider any negative impact on the fund resulting from borrowing funds for liquidity risk management purposes, as opposed to managing liquidity through the fund's portfolio construction. For example, borrowing funds to pay redeeming shareholders (for example, to avoid making sales of assets into distressed markets) could be beneficial to redeeming shareholders but could ultimately disadvantage non-redeeming shareholders who would effectively bear the costs of borrowing.[317] In assessing the effects of the fund's borrowing arrangements on the fund's liquidity risk, a fund may find it useful to assess the purposes for which the fund has historically borrowed funds to pay redemption proceeds. Finally, if a fund holds bonds or other securities issued by a bank, the fund may wish to consider whether entering into a borrowing arrangement with the same bank that issued such securities increases correlated exposure to the bank.

A fund also could engage in interfund lending within a family of funds if the fund has obtained exemptive relief from the Commission permitting the arrangement.[318] When considering the extent to which an interfund lending arrangement could affect a fund's liquidity risk, we believe a fund may find it instructive to evaluate the terms of the arrangement (*e.g.,* the lending rate and the time frame for repaying borrowed funds), as well as any conditions required under exemptive relief, including limitations on the circumstances in which interfund lending may be used. For example, it is common for 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. Therefore this type of borrowing would tend to be very low risk, and thus entail less liquidity risk,[319] than borrowing money to pay redemptions without already having secured a price at which the assets used to cover the borrowing will be sold.

Finally, a fund could generate liquidity through repurchase transactions, whereby the fund could agree to sell securities to another party at a specified price with a commitment to buy the securities back at a later date for another specified price. A repurchase agreement is structurally similar to a short-term loan, and thus a fund could use repurchase agreements to temporarily borrow cash to repay redeeming shareholders. A fund may find it instructive to consider how factors such as market conditions, supply and demand factors, whether the repurchase agreement is on a bilateral or tri-party basis, and counterparty credit risk could affect the ability of repurchase transactions to mitigate liquidity risk.

A fund's borrowing and other funding arrangements are subject to restrictions on affiliated transactions and leverage under the Investment Company Act and rules under the Act. For example, funds must obtain exemptive relief from the Commission before executing transactions that implicate section 17 of the Investment Company Act, which restricts transactions between an ''affiliated person of a registered investment company or an affiliated person of such affiliated person'' and that investment company.[320] Thus, as noted above, a fund must obtain exemptive relief before executing interfund lending arrangements. Additionally, funds' borrowing arrangements must be conducted in compliance with section 18 of the Investment Company Act, which limits a fund's ability to issue or sell ''senior securities.'' For instance, section 18(f) of the Investment Company Act limits funds to bank borrowing with 300% asset coverage.[321] The Commission and its staff have also taken the position that reverse repurchase agreements may involve the issuance of a senior security subject to the requirements of section 18 and, under certain circumstances, a fund could need to ''cover'' the senior security by maintaining ''segregated accounts.'' [322] These statutory and regulatory restrictions could constrain a fund's ability to use borrowing and other funding sources to meet redemption requests, and these limitations should be considered in assessing a fund's liquidity risk.

e. Request for Comment

We request comment on the proposed liquidity risk assessment requirement.

- Do commenters believe that the definition of ''liquidity risk'' in proposed rule 22e–4 is appropriate? Within the proposed definition, are the terms ''reasonably foreseeable'' and ''without materially affecting the fund's NAV'' clear? If not, how could the definition of ''liquidity risk,'' and terms within the proposed definition, be made more appropriate and/or clear?
- How do funds currently assess their liquidity risk? Who at the fund and/or the adviser is tasked with assessing the fund's liquidity risk? Who should be tasked with assessing the fund's liquidity risk? Should the proposed rule specify the officers or functional areas

[317] *See* Heartland Release, *supra* note 47.

[318] *See infra* note 320 and accompanying and following text.

[319] *See supra* section III.C.1.c (discussing circumstances in which a fund's use of leverage and derivatives could increase the fund's liquidity risk).

[320] *See* Investment Company Act sections 17(a) (prohibiting first- and second-tier affiliates of a fund from borrowing money or other property from, or selling or buying securities or other property to or from the fund, or any company that the fund controls; 17(b) (permitting the Commission to grant an exemptive order permitting transactions that would otherwise be prohibited under section 17(a) if certain conditions of fairness are met); *see also* Investment Company Act section 17(d) (making it unlawful for first- and second-tier affiliates of a fund, the fund's principal underwriters, and affiliated persons of the fund's principal underwriters, acting as principal, to effect any transaction in which the fund or a company controlled by the fund is a joint or a joint and several participant in contravention of Commission rules); rule 17d–1(a) under the Investment Company Act (prohibiting first- and second-tier affiliates of a fund, the fund's principal underwriters, and affiliated persons of the fund's principal underwriters, acting as principal, from participating in or effecting any transaction in connection with any joint enterprise or other joint arrangement or profit-sharing plan in which any such fund or company controlled by a fund is a participant unless an application regarding such enterprise, arrangement or plan has been filed with the Commission and has been granted).

[321] *See* Investment Company Act section 18(f) (prohibiting an open-end fund from issuing any senior security, except that a fund may borrow from any bank so long as immediately after the borrowing there is asset coverage of at least 300% for all borrowings of the fund).

[322] *See, e.g.,* Release 10666 *supra* note 241. In Release 10666, the Commission considered the application of section 18's restrictions on the issuance of senior securities to reverse repurchase agreements (among other types of agreements). The Commission concluded that such agreements may involve the issuance of senior securities subject to the prohibitions and asset coverage requirements of section 18. The Commission further stated that, although reverse repurchase agreements (among other types of agreements) are functionally equivalent to senior securities, these and similar arrangements nonetheless could be used by funds in a manner that would not warrant application of the section 18 restrictions. The Commission noted that in circumstances involving similar economic effects, such as short sales of securities by funds, Commission staff had determined that the issue of section 18 compliance would not be raised if funds ''cover'' senior securities by maintaining ''segregated accounts.'' The Commission also discussed the specific attributes of segregated accounts, board obligations, and other related matters in Release 10666.

that should be tasked with assessing a fund's liquidity risk?

We also request comment on each of the proposed factors that each fund would be required to consider in assessing its liquidity risk.

• What factors do funds currently use to assess their liquidity risk, and do the proposed factors reflect factors that funds (and/or the adviser, as applicable) already consider when evaluating liquidity risk? Should any of the proposed factors not be required to be considered by a fund in assessing its liquidity risk? Should any of the proposed factors be modified? Are there any additional factors, besides the proposed factors, that a fund should be required to consider in assessing liquidity risk? Should any of the proposed factors be given additional weight and, if so, under what circumstances?

• Instead of codifying the proposed factors as part of proposed rule 22e–4, should we provide guidance on factors that might be appropriate for a fund to consider in assessing its liquidity risk?

We seek comment on the Commission's guidance discussed above regarding each of the proposed factors.

• Besides the guidance, are there any other specific issues associated with any of the proposed factors that a fund may wish to consider in assessing the fund's liquidity risk? Do commenters generally agree with the guidance that the Commission has proposed regarding the ways in which each of the proposed factors could contribute to a fund's liquidity risk? Should the staff provide additional guidance about the factors? Should we add a note to rule 22e–4 indicating that the release includes additional guidance regarding the proposed factors?

• Are there any factors or procedures that would be of particular use to a fund without a substantial operating history in assessing liquidity risk? Would a new fund look to purchase and redemption activity in similar funds to predict its flow patterns?

2. Periodic Review of a Fund's Liquidity Risk

a. Proposed Liquidity Risk Review Requirement

Proposed rule 22e–4(b)(2)(iii) would require a fund to periodically review the fund's liquidity risk, taking into account each of the factors of proposed rule 22e–4(b)(2)(iii)(A)–(D) (discussed above in sections III.C.1.a–III.C.1.d). We believe that the periodic review of a fund's liquidity risk is necessary to determine whether, in light of current circumstances, an adequate level of liquidity is being maintained. Like the proposed requirement to monitor the liquidity of portfolio assets,[323] the proposed liquidity risk review requirement would permit each fund to develop and adopt effective and individualized procedures to review the fund's liquidity risk, tailored as appropriate to reflect the fund's particular facts and circumstances. A fund would be required to consider each of the proposed rule 22e–4(b)(2)(iii)(A)–(D) factors in reviewing its liquidity risk. However, beyond this, rule 22e–4 does not include prescribed review procedures, nor does it specify the required risk review period or incorporate specific developments that a fund should consider as part of its review. A fund might generally consider whether its periodic review procedures should include procedures for evaluating regulatory, market-wide, and fund-specific developments affecting each of the proposed rule 22e–4(b)(2)(iii) risk factors. Because a fund's liquidity risk is directly related to the liquidity of the fund's portfolio assets (as reflected by proposed rule 22e–4(b)(2)(iii)(B), which requires consideration of the liquidity of a fund's portfolio assets as an element of the fund's liquidity risk assessment), a fund may wish to adopt liquidity risk review procedures that reference the fund's procedures for monitoring portfolio assets' liquidity. For example, a fund's liquidity risk review procedures could specify that certain circumstances giving rise to a revision of a portfolio asset's liquidity classification[324] could necessitate a review of the fund's liquidity risk.

b. Request for Comment

We request comment on the proposed liquidity risk review requirement.

• How do funds currently review liquidity risk? How often do funds currently review this risk? To what extent do funds anticipate that the periodic review procedures that would be required under proposed rule 22e–4 would replicate procedures funds currently use to periodically evaluate liquidity risks facing the fund?

• Are there certain review procedures that the Commission should require and/or on which the Commission should provide guidance? Should the Commission specify how frequently a fund must review its liquidity risk? Should funds review liquidity risk at least as frequently as they conduct ongoing liquidity reviews? Should the Commission expand its guidance on regulatory, market-wide, and fund-specific developments that a fund's review procedures should cover?

3. Portfolio Liquidity: Minimum Investments in Three-Day Liquid Assets

a. Proposed Three-Day Liquid Asset Minimum Requirement

Proposed rule 22e–4(b)(2)(iv)(A) would require each fund to determine the fund's ''three-day liquid asset minimum'' as part of its liquidity risk management program.[325] As proposed, the fund's three-day liquid asset minimum would be defined as the percentage of the fund's net assets to be invested in three-day liquid assets.[326] In determining its three-day liquid asset minimum, a fund would be required to consider the factors a fund would be required to consider in assessing its liquidity risk under proposed rule 22e–4(b)(2)(iii).[327] These factors include an assessment of short-term and long-term cash flow projections, taking into account certain specified considerations discussed further below; the investment strategy and liquidity of the fund's portfolio assets; the use of borrowings and derivatives for investment purposes (for example, to enhance returns),[328] and holdings of cash and cash equivalents, as well as borrowing arrangements and other funding sources. These factors are based, in part, on staff outreach to funds and third-party service providers that assess liquidity risk on behalf of funds, and they also incorporate considerations that we believe have historically contributed to liquidity risk in open-end funds.[329]

A fund's board would be required to approve the fund's three-day liquid asset minimum (including any changes to the fund's three-day liquid asset minimum),[330] and a fund would be required to maintain a written record of how the fund's three-day liquid asset minimum was determined (including an

[323] *See* proposed rule 22e–4(b)(2)(i).

[324] *See, e.g., supra* paragraph accompanying notes 251–254.

[325] Under proposed rule 22e–4(b)(2)(iv)(C), a fund would be prohibited from acquiring any less liquid asset if, immediately after the acquisition, the fund would have invested less than its three-day liquid asset minimum in three-day liquid assets.

[326] We propose to define three-day liquid asset as any cash held by a fund and any position of a fund in an asset (or portion of the fund's position in an asset) that the fund believes is convertible into cash within three business days at a price that does not materially affect the value of that asset immediately prior to sale. *See* proposed rule 22e–4(a)(8).

[327] *See* proposed rule 22e–4(b)(2)(iv)(A).

[328] *See* Investment Company Names Rule Release, *supra* note 36, at n.36 (''Whether a particular transaction is considered borrowing for investment purposes would depend on all facts and circumstances.'').

[329] *See supra* section III.C.1.

[330] *See* proposed rule 22e–4(b)(3)(i).

assessment of each of the factors proposed rule 22e–4 would require a fund to assess in making this determination).[331]

We are proposing the requirement for each fund to determine a three-day liquid asset minimum to increase the likelihood that the fund will hold adequate liquid assets to meet redemption requests without materially affecting the fund's NAV. Although the Commission has stated that open-end funds have a general responsibility to maintain an appropriate level of portfolio liquidity, no requirements under the federal securities laws or Commission rules specifically oblige open-end funds (with the exception of money market funds) to maintain a minimum level of portfolio liquidity.[332] We believe that codifying a three-day liquid asset minimum requirement would result in a portfolio liquidity standard that fosters consistency in funds' consideration of the factors relevant to their liquidity risk management, while simultaneously permitting flexibility in implementation, which we believe is appropriate in light of the significant diversity of holdings and strategies within the fund industry.

We believe setting the minimum amount of liquid assets in the fund based on three-day liquid assets is appropriate for a number of reasons. Most funds sell at least some of their shares through broker-dealers, and thus, as a practical matter, are required as a result of rule 15c6–1 under the Exchange Act to meet redemptions within three business days.[333] While some mutual funds disclose in their prospectuses that they will generally pay redemption proceeds on a next-business day basis and many others do so as a matter of practice,[334] we are not proposing that funds maintain a minimum amount of assets that may be converted to cash within one day, given the impact such a minimum could have on investment strategies. Staff outreach has shown that, for the funds that typically do target a minimum amount of liquidity in the fund, they typically target either cash and cash equivalents or assets similar to our definition of three-day liquid assets. Accordingly, targeting such a minimum appears to be a common practice for those funds that do establish a target.

Consistent with the time period referenced in section 22(e) of the Act, we considered requiring that a fund determine a minimum amount of liquid assets based on assets convertible to cash within seven calendar days at a price that does not materially affect the value of that asset immediately prior to sale (''seven-day liquid assets''). Determining a minimum amount of seven-day liquid assets would require that a fund have a certain amount of liquidity to meet redemptions within the seven-day period required under the Act. However, we were concerned that requiring a minimum amount of seven-day liquid assets would not as well match regulatory requirements and disclosures that require most funds to meet redemption requests in shorter time periods and market practices and investor expectations that effectively require all funds to meet redemption requests in shorter time periods. We thus believe that a three-day liquid asset minimum more effectively advances our goals of reducing the risk that funds will be unable to meet redemptions and mitigating dilution.

We anticipate that the proposed requirement for a fund to consider certain factors, including the factors required in assessing the fund's liquidity risk, in determining its three-day liquid asset minimum would promote investor protection by reducing the risk funds will be unable to meet their redemption obligations, mitigating dilution, and elevating the overall quality of liquidity risk management across the fund industry. The consideration of certain factors also would require every fund to consider multiple aspects of its history, policies, strategy, and operations that could give rise to liquidity risk.

When determining its three-day liquid asset minimum, a fund must consider short-term and long-term cash flow projections, taking into account the following factors, which we discussed previously in connection with the assessment of a fund's liquidity risk:[335]

1. the size, frequency, and volatility of historical purchases and redemptions of fund shares during normal and stressed periods;
2. the fund's redemption policies;
3. the fund's shareholder ownership concentration;
4. the fund's distribution channels; and
5. the degree of certainty associated with the fund's short-term and long-term cash flow projections.[336]

We believe consideration of cash flow projections is pivotal to setting an appropriate three-day liquid asset minimum. The primary goal of a minimum level of liquidity is to ensure that each fund is able to meet redemptions and to do so with minimal dilution of shareholders' interests. Doing so requires that the fund's adviser, to the best of its ability, understands potential levels of net redemptions and the causes and timing of those redemptions. To adequately make such projections, we believe a fund must consider the sub-factors described above. For example, it would be important to understand not just the magnitude of redemptions the fund tends to receive, but also how frequent redemptions of various sizes are and how volatile the fund's flows are. It also may be important to understand how the fund's redemption activity compares to funds with similar investment strategies, for example, to understand whether the fund may have unique liquidity risks (or lack liquidity risks) that may make past redemption experiences less predictive of future redemption risk. It would be essential that the fund formulate its cash flow projections after considering the factors in both normal and stressed periods—minimum liquidity would not likely advance the Commission's goal of reducing the risk that funds will be unable to meet redemptions and mitigating dilution if funds can only meet redemptions in stressed conditions through sales of portfolio assets that create dilution and significantly increase the fund's liquidity risk. In addition, a fund, though not required to do so, may wish to consider employing some form of stress testing[337] or consider specific historical redemption scenarios in determining its three-day liquid asset minimum.

In formulating the fund's cash flow projections, a fund also must consider the fund's redemption policies, shareholder ownership concentration, and distribution channels. These are

[331] *See* proposed rule 22e–4(c)(3) (each fund must maintain a written record of how the three-day liquid asset minimum, and any adjustments thereto, were determined, including assessment of the factors specified in proposed rule 22e–4(b)(2)(iii)(A)–(D), 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 three-day liquid asset minimum).

[332] *See supra* section II.D.1.

[333] *See, e.g.,* Fidelity FSOC Notice Comment Letter, *supra* note 20, at 6 (''As a practical matter, three-day settlement requirements under Exchange Act Rule 15c6–1 . . . effectively take most fund investments to a T+3 settlement timeline.'').

[334] *See id.* at 6 (''mutual funds normally process redemption requests by the next business day''); *see also* ICI FSOC Notice Comment Letter, *supra* note 16, at 17 (''For example, a mutual fund has by law up to seven days to pay proceeds to redeeming investors, although as a matter of practice funds typically pay proceeds within one to two days of a redemption request.'').

[335] *See supra* section III.C.1.a.

[336] *See* proposed rule 22e-4(b)(2)(iii)(A).

[337] *See supra* text following note 100; *see also supra* note 104 (discussing Commission initiative to require large investment companies and investment advisers to engage in annual stress tests as required by section 165(i) of the Dodd-Frank Act).

important structural features of a fund that can materially affect the risk of significant redemptions—and thus may cause a fund to set a higher three-day liquid asset minimum than one based on its redemption history alone. 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 and/or unpredictable flows also should consider setting a higher three-day liquid asset minimum than a fund that—all else equal—does not face these risks. Finally, in setting a three-day liquid asset minimum it is critical that a fund 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 great 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 those projections. In these circumstances, we would expect a fund to set its three-day liquid asset 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. A fund should have a three-day liquid asset minimum that will allow it to meet its net redemption projections.

In setting its three-day liquid asset minimum, a fund also must consider its investment strategy and the liquidity of portfolio assets. A finding of the DERA Study is that certain investment strategies typically have greater volatility of flows than other investment strategies. For example, the DERA Study indicates that the mean standard deviation of monthly net flows for alternative funds is 13.6% and for emerging market debt funds is 9.4%, but is only 2.7% for municipal bond funds and 4.9% for U.S. corporate bond funds.[338] Accordingly, all else equal, we generally would expect that an emerging market debt fund would have a higher three-day liquid asset minimum than a municipal bond fund. Similarly, the less liquid a fund's overall portfolio assets are, the more a fund may want to establish a higher three-day liquid asset minimum to avoid dilution when meeting investor redemptions.

A fund also must consider its use of borrowings and derivatives in setting its three-day liquid asset minimum. 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.[339] A fund with a leveraged strategy thus, all else equal, should have a higher three-day liquid asset minimum than a fund that does not.

Finally, a fund must consider its holdings of cash and cash equivalents, as well as borrowing arrangements and other funding sources when determining its three-day liquid asset minimum. Unencumbered cash and cash equivalents are assets that the fund can typically readily deploy, in normal and stressed conditions, to meet redemptions. 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. Our staff observed that several fund complexes targeted a minimum amount of cash or cash equivalent holdings in the fund because they assumed such holdings would allow the fund to meet redemptions in a stressed period without realizing significant discounts to fair value when the asset was sold. Accordingly, higher cash and cash equivalent holdings may make a fund more comfortable that it can meet redemptions under stressed conditions with a lower three-day asset minimum than an equivalent fund whose three-day asset minimum was comprised primarily of non-cash equivalent assets. A fund also should consider whether it has a line of credit or other funding sources available to it to meet redemptions. As discussed further below, while we believe that liquidity risk management is best conducted primarily through portfolio construction, we recognize a line of credit can facilitate a fund's ability to meet unexpected redemptions.

Because each fund would be required to maintain a written record of how its three-day liquid asset minimum was determined, including an assessment of each of the factors discussed above,[340] our examination staff would be able to ascertain that funds are indeed considering the required factors. We expect that a board approving a fund's three-day liquid asset minimum would consider how the specified factors inform that minimum, and thus we believe that the proposed rule would cause fund boards to consider a comprehensive set of issues surrounding the fund's liquidity risk and risk management. Moreover, we believe that the board approval requirement associated with the three-day liquid asset minimum determination would add independent oversight over funds' liquidity risk management.

Although a fund would be permitted to determine its three-day liquid asset minimum under the analysis required by the proposed rule, we generally believe that it would be extremely difficult to conclude, based on the factors it would be required to consider, that a zero three-day liquid asset minimum would be appropriate. Under the proposed rule, a fund's three-day liquid asset minimum would be a control to manage the fund's liquidity risk, and as discussed above the fund's three-day liquid asset minimum would be required to be determined based on the consideration of certain specified factors.[341] We believe that it would be extremely difficult to conclude, based on factors such as the fund's cash flow projections and redemption policies, that zero holdings of three-day liquid assets would allow the fund to manage its liquidity risk (in conjunction with any other liquidity risk management policies and procedures the fund adopts as part of its liquidity risk management program).

By way of example, consider a bank loan fund with a ten-year track record. The fund has a history of volatile cash

[338] DERA Study, *supra* note 39, at Table 6.

[339] *See, e.g.,* OppenheimerFunds Release, *supra* note 309.

[340] *See supra* note 331.

[341] *See* proposed rule 22e–4(b)(iv)(A).

flows that it projects will continue, with periods of market stress and reduced performance leading to increased net redemptions, and its largest net redemption during a one-week period was five percent of the fund's net assets. The fund does not have a concentrated shareholder base and is sold through several broker-dealers. The fund has 98 percent of its net assets invested in bank loans and loan participations that do not settle within three business days, one percent of its net assets invested in corporate bonds (which under this example we are assuming qualify as three-day liquid assets) and one percent of its net assets in cash and cash equivalents. The fund does not borrow or use derivatives for investment purposes, but does have a committed credit line in place with a bank. It would appear that such a fund, after assessing the factors required to be considered, would have a difficult time concluding that its existing three-day liquid asset holdings would be an adequate minimum given the liquidity risks inherent in the fund's portfolio and its redemption history.

We considered establishing a floor for the three-day liquid asset minimum. For example, we considered requiring that a fund set its three-day liquid asset minimum after consideration of the factors described above, but in no event could the minimum be below a certain specified percentage of the fund's net assets or a certain multiple of its average or worst net redemptions. A uniform percentage three-day liquid asset minimum floor could be difficult, however, given the diverse range of funds to which it would apply and the range of net redemptions within different types of funds indicated by the DERA Study. If set relatively high, a uniform percentage floor risks requiring excessive liquidity in some funds given their portfolio characteristics, investor base, and flow projections, which may unnecessarily constrain the fund's returns and investment in certain assets frustrating investors' goals in choosing to invest in the fund. If set relatively low, it may encourage some funds to set low levels of three-day liquid asset minimums that would not effectively manage liquidity risk or mitigate dilution. A floor also could be set based on a fund's historical redemptions. However, such a floor would not be forward-looking—a fund should be setting its minimum liquidity based in large part on projections of expected future redemptions. Such an approach risks a fund setting its minimum liquidity too low, for example during a period of rapid inflows that are likely to soon reverse. Conversely, continuing with the same example, it risks setting minimum liquidity too high after those flows have in fact reversed.

Accordingly, we preliminarily believe our proposed approach appropriately balances these considerations by requiring that a rigorous set of factors be considered and documented, and the three-day liquid asset minimum approved by the fund's board, but otherwise allow the minimum to be tailored to the nature of the fund and its cash flow projections. It should allow funds with different investment strategies, and whose cash flow and liquidity needs vary notably from one fund to the next, to manage their individual levels of liquidity risk in a way that best serves their investors.[342] We recognize that funds' three-day liquid asset minimums would likely vary from one fund to the next (even within the same strategy), depending on the factors that each fund would be required to consider. But we believe that consideration and documentation of the required factors, board oversight, and public disclosure of the fund's three-day liquid asset minimum should constrain funds from setting an inappropriately low minimum in light of the fund's liquidity needs and risks.[343]

We also note that assets eligible for inclusion in each fund's three-day liquid asset minimum holdings 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 three-day liquid assets in cash and cash equivalents, another could decide it is appropriate to hold equity, debt, derivatives or asset-backed securities as the majority of its three-day liquid asset minimum holdings. We believe that the proposed three-day liquid asset minimum requirement would allow funds to continue to meet a wide variety of investors' investment needs by obliging funds to maintain appropriate liquidity in their portfolios, while permitting funds to remain substantially invested in portfolio assets that conform to their investment strategies.

The proposed three-day liquid asset minimum requirement reflects liquidity management strategies that we understand from staff outreach that some—but not all—funds use. Based on staff outreach, we understand that funds of different sizes, with varying investment strategies, manage their liquidity by maintaining specified portions of their portfolios in more liquid assets. Some funds invest a certain percentage of their assets in cash and cash equivalents; others invest in other types of more liquid portfolio securities corresponding with their investment strategies. To the extent that a fund already maintains a specified portion of its portfolio in more liquid assets, we anticipate that the proposed three-day liquid asset minimum requirement would formalize this risk management strategy, and augment it by requiring the fund to consider certain factors in determining the portion of assets that the fund will maintain in three-day liquid assets. More importantly, it would require the many funds that do not consider maintaining a minimum amount of liquidity, despite their obligations to meet redemptions within a certain time period, to do so.

b. Limiting Acquisition of Less Liquid Assets in Contravention of a Fund's Three-Day Liquid Asset Minimum

Under proposed rule 22e–4(b)(2)(iv)(C), a fund would not be permitted to acquire any less liquid asset if, immediately after the acquisition, the fund would have invested less than its three-day liquid asset minimum in three-day liquid assets.[344] This provision of proposed rule 22e–4 would thus limit the acquisition of less liquid assets if such acquisition would result in the fund holding a smaller percentage of its net assets in three-day liquid assets than the percentage representing its three-day liquid asset minimum. The provision would not, however, require a fund to constantly have invested a certain portion of its net assets in three-day liquid assets. For example, if a fund's investments in three-day liquid assets were to temporarily drop below the fund's three-day liquid asset minimum,

[342] *See, e.g.*, BlackRock FSOC Notice Comment Letter, *supra* note 50, at 6 (statement that among several overarching principles that provide the foundation for a prudent market liquidity risk management framework for collective investment vehicles is ''[r]equiring that individual funds have sufficient sources of market liquidity to meet anticipated redemptions under a range of scenarios, including changes in market risk factors (*e.g.*, interest rates) that may impact the value of portfolio securities and/or collateral and various levels of potential fund redemptions. This could be achieved by setting out principles for managing liquidity and redemption risk that should include maintaining sufficient levels of liquid assets, such as cash and liquid bonds as well as dedicated and shared loan facilities. The principles-based approach should provide appropriate flexibility to tailor practices to particular asset structures and fund redemption terms.'').

[343] *See infra* section III.D.1–2 (discussing board approval of the fund's three-day liquid asset minimum and any changes thereto), section III.G.2.c (discussing disclosure of a fund's three-day liquid asset minimum on proposed Form N–PORT).

[344] A fund's three-day liquid asset minimum would apply at the series level, not at the class level.

proposed rule 22e–4(b)(2)(iv)(C) would require the fund to acquire only three-day liquid assets until its investments in three-day liquid assets reach the fund's three-day liquid asset minimum, but the proposed rule would not require the fund to divest less liquid assets and reinvest the proceeds in three-day liquid assets.[345]

While we believe that fund shareholders' interests are generally best served when the percentage of a fund's assets invested in three-day liquid assets is at (or above) the fund's three-day liquid asset minimum,[346] we believe that requiring a fund to maintain this percentage at all times could adversely affect shareholders and could potentially negate the liquidity risk management benefits of the proposed three-day liquid asset minimum requirement. For instance, if a fund were forced to sell less liquid assets at an inopportune time in order to reinvest the proceeds in three-day liquid assets, the fund might need to sell the less liquid assets at prices that incorporate a significant discount to the assets' stated value, or even at fire sale prices. These forced sales could produce significant negative price pressure on those assets and decrease the value of the assets still held by the fund, thereby decreasing the value of fund shares held by remaining investors, and possibly creating a first-mover advantage that harms investors who choose not to redeem their shares as quickly as others.[347] Also, if a fund needed to rebalance its portfolio frequently to maintain a specified percentage of the fund's net assets invested in three-day liquid assets, this could produce unnecessary transaction costs adversely affecting the fund's NAV, and could cause a fund to sell portfolio assets when it is not advantageous to do so (*e.g.*, when an asset's price is low, or when sales of an asset would have an undesirable tax impact). For these reasons, we are proposing a requirement that limits the acquisition of less liquid assets when such acquisition would result in a fund investing less than its three-day liquid asset minimum in three-day liquid assets, but we are not proposing to require that funds always maintain a certain portion of their portfolio assets in three-day liquid assets.[348]

c. Periodic Review of a Fund's Three-Day Liquid Asset Minimum

Under proposed rule 22e–4(b)(2)(iv)(B), each fund would be required to periodically review the adequacy of the fund's three-day liquid asset minimum, and in conducting such review would be required to take into account the factors a fund would be required to consider in determining its three-day liquid asset minimum. We believe the factors used to determine a fund's three-day liquid asset minimum also provide an appropriate framework for reviewing the adequacy of a fund's three-day liquid asset minimum because, as discussed below, changes in the assessment of the factors could provide a basis for adjusting the three-day liquid asset minimum. A fund would be required to complete this review no less frequently than semi-annually,[349] but could establish a more frequent periodic review period, and in addition could review the three-day liquid asset minimum even more frequently on an ad-hoc basis as conditions demand.[350] As discussed below, the fund's investment adviser or officers administering the fund's liquidity risk management program would be required to submit written reports to the fund's board concerning the adequacy of the fund's liquidity risk management program, including the fund's three-day liquid asset minimum, and the effectiveness of its implementation. Board approval would be required for any changes to the fund's three-day liquid asset minimum.[351] Each fund would be required to maintain a copy of the written reports provided to the board, as well as a written record of the fund's assessment of the factors set forth in rule 22e–4(b)(2)(iii)(A) through (D) and the determination of the three-day liquid asset minimum, and any reviews and adjustments to the fund's three-day liquid asset minimum.[352]

Because we anticipate that a fund would rely significantly on its three-day liquid assets in meeting fund redemptions, we view the three-day liquid asset minimum determination as a cornerstone of a fund's liquidity risk management, and we believe it is important for a fund to periodically reassess whether its three-day liquid asset minimum effectively assists the fund in managing its liquidity risk. We envision the determination of a fund's three-day liquid asset minimum as a dynamic process, incorporating new or updated information into the fund's assessment of factors, reflecting shareholder-related, fund-management-oriented, or market changes that could affect the fund's ability to meet redemptions. A fund's three-day liquid asset minimum could become outdated for multiple reasons. For example, a fund's shareholder ownership concentration could change or market events could reveal that shareholder redemption patterns are different than anticipated under certain circumstances. Additionally, market events or national regulatory, monetary, and fiscal policies could affect the liquidity of a fund's portfolio assets. Any of these events, or similar events influencing a fund's cash flows, portfolio liquidity, or the other liquidity risk factors included in proposed rule 22e–4(b)(2)(iii), could alter the level of three-day liquid assets that a fund would determine appropriate to manage its liquidity risk.

Like the proposed requirements to perform an ongoing review of the liquidity of portfolio assets and to review periodically the fund's liquidity risk,[353] the proposed three-day liquid

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[345] A fund's investments in three-day liquid assets could drop below the fund's three-day liquid asset minimum for a variety of reasons. For instance, the fund could sell its most liquid assets in order to obtain cash to meet redemption requests, thereby reducing its holdings of three-day liquid assets. Or, if the market value of a fund's three-day liquid assets falls relative to the market value of the fund's less liquid assets, the percentage of a fund's assets invested in three-day liquid assets could decrease. A fund's three-day liquid assets also could become less liquid if market conditions deteriorate.

[346] *See supra* text preceding and following note 332.

[347] *See infra* notes 690–698 and accompanying text.

[348] This proposed acquisition test (in contrast to a maintenance test) reflects approaches that Congress and the Commission have historically taken in other parts of the Investment Company Act and the rules thereunder. *See, e.g.*, Investment Company Act section 5(c) (a registered diversified company that at the time of its qualification meets the diversification requirements specified in Investment Company Act section 5(b)(1) shall not lose its status as a diversified company because of any subsequent discrepancy between the value of its various investments and the requirements of section 5(b)(1), so long as any such discrepancy existing immediately after its acquisition of any security or other property is neither wholly nor partly the result of such acquisition); rule 2a–7(d)(3) (portfolio diversification requirements of rule 2a–7 are determined at the time of portfolio securities' acquisition); rule 2a–7(d)(4)(i) (limit on a money market fund's acquisition of illiquid securities 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(d)(4)(ii)–(iii) (minimum daily liquidity requirement and minimum weekly liquidity requirement of rule 2a–7 are determined at the time of portfolio securities' acquisition).

[349] Proposed rule 22e–4(b)(2)(iv)(B).

[350] *See infra* paragraph following note 352.

[351] *See infra* section III.D (discussing the board's role in approving and overseeing a fund's liquidity risk management program); *see also* proposed rule 22e–4(b)(3)(i) and (ii). We note that a fund may hold more three-day liquid assets than required by the three-day liquid asset minimum. Thus, a fund may determine it is appropriate to increase its minimum holdings in three-day liquid assets without waiting for the next board meeting (or calling a special meeting) to formally approve an increase in the minimum.

[352] *See supra* note 331.

[353] *See supra* note 323 and accompanying text.

asset minimum review requirement would permit each fund to develop and adopt its own procedures for conducting this review, taking into account the fund's particular facts and circumstances. While each fund would be required to consider each of the proposed rule 22e–4(b)(2)(iii)(A)–(D) factors in periodically reviewing its three-day liquid asset minimum, rule 22e–4 would not otherwise include prescribed review procedures or incorporate specific developments that a fund should consider as part of its review. We believe that in developing comprehensive periodic 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 ad-hoc review of the fund's three-day liquid asset minimum in addition to the periodic review required by the proposed rule (as well as the process for conducting any ad-hoc reviews).

d. Request for Comment

We request comment on all aspects of the proposed three-day liquid asset minimum requirement.

- Do commenters agree that the proposed three-day liquid asset minimum requirement would improve a fund's ability to meet redemption requests without materially affecting the fund's NAV? Are we correct that not all funds today target holding a minimum amount of more liquid assets?
- Do commenters agree that the proposed requirement would promote investor protection by enhancing funds' ability to meet their redemption obligations, mitigating dilution, and elevating the overall quality (comprehensiveness as well as independence) of liquidity risk management across the industry? Would the proposed requirement assist fund boards in overseeing funds' ability to meet redemption obligations?
- Should we define the three-day liquid asset minimum as proposed? Should we define three-day liquid assets as proposed? If not, why not? Are there other definitions that would be better? If so, what are they? Should we preclude certain assets or types of assets from being considered three-day liquid assets? If so, which assets or asset types and why? For example, should we prohibit funds from classifying as three-day liquid assets any assets that are subject, directly or indirectly, to a guarantee, put, wrap, swap, or other liquidity enhancement from a third party? Alternatively, should we require specific disclosure regarding such assets? If so, what should be included in the disclosure? Should we require that the fund more stringently or frequently monitor the liquidity of three-day liquid assets?
- Would an alternate liquid asset holdings requirement (*e.g.*, a seven-day liquid asset minimum requirement, a one-day liquid asset minimum requirement, or a buffer of cash and cash equivalents or a combination of the above) better accomplish these goals, and if so, what should that alternate requirement be and why? Should funds that disclose that they will meet redemptions (or are otherwise required to meet redemptions) within less than three business days be required to have liquid asset minimum requirements that correspond to those shorter redemption windows (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)? Conversely, should funds that disclose that under normal circumstances they expect to meet redemptions within a period that is longer than three business days (*e.g.*, within the seven days permitted under section 22(e)) be permitted to have liquid asset minimum requirements that correspond to those longer redemption windows? Which funds (and holding how much assets) are not subject to rule 15c6–1 under the Exchange Act? Would different minimum liquidity requirements for different open-end funds be confusing to investors?
- Instead of permitting each fund to determine the portion of liquid asset holdings that would most effectively enable it to manage its own liquidity risk, should the Commission instead mandate a standard level of required minimum liquid asset holdings across-the-board, or different levels depending on different investment strategies (or some other fund characteristic)? If so, at what level (*e.g.*, 1%, 5%, 10%), and what considerations would form the basis for the recommended level?
- Should the Commission set a floor below which a fund could not set its three-day liquid asset minimum? Should it do so only for funds that hold above a certain percentage of net assets in less liquid assets? If so, what percentage of less liquid assets should trigger the mandated floor on the three-day liquid asset minimum? What should the floor on the three-day liquid asset minimum be for such funds?
- In addition to specifying that a fund must determine its three-day liquid asset minimum, should the Commission also require a fund to limit its investment in a subset of less liquid assets held by a fund (*e.g.*, assets that can only be converted to cash in over 7 days, over 15 days, over 30 days, or over 90 days at a price that does not materially affect the value of that asset immediately prior to sale)? If so, what should this limit be? Should it be a set percentage of fund assets established by the Commission (*e.g.*, 5%, 10%, 20%, 30%), or should a fund be required to set its own limit, using the factors it would be required to consider in determining its three-day liquid asset minimum (or some other set of factors)? Should this limit apply to all funds, or only a subset of funds (*e.g.*, only funds with certain investment strategies, or whose three-day liquid asset minimums are below a certain threshold)? Would such a requirement be an effective substitute for the limit on 15% standard assets discussed below?
- Should we exclude certain funds from the proposed requirement to determine a three-day liquid asset minimum? For example, should a fund that only invests in three-day liquid assets be required to determine a three-day liquid asset minimum?
- Instead of a requirement that limits the acquisition of less liquid assets when such acquisition would result in a fund investing less than its required minimum in three-day liquid assets, would a requirement mandating that a fund always maintain a specified portion of its assets in three-day liquid assets better facilitate funds' liquidity risk management and promote investor protection? Should a fund be required to hold some minimum portion of assets in holdings that are likely to be liquid in stressed market environments? If so, what type of assets, at what level, and what considerations would form the basis for the recommended level?
- As noted above, the three-day liquid asset minimum would be tested each time the fund acquires new assets, and a fund would be permitted to fall below its three-day liquid asset minimum if it does so due to redemptions or market events. Once a fund falls below its three-day liquid asset minimum, any acquisition of new assets must be of three-day liquid assets until the fund is at or above its three-day liquid asset minimum. Should we limit the time period (*e.g.*, to 30 days, 60 days, or 90 days) in which a fund can be below its three-day liquid asset minimum so that a fund cannot persistently be below this level of liquidity? Would such an approach better promote investor protection? Would there be operational challenges

with this requirement? Should we limit the extent to which a fund can fall below its three-day liquid asset minimum? If so, what extent should be the limit?

• Should the board be required to approve the fund's three-day liquid asset minimum and any changes to the three-day liquid asset minimum? Why or why not?

We request comment on how the three-day liquid asset minimum requirement (or a similar requirement) could affect the management of a fund's liquidity risk, decrease the probability that the fund will be able to meet redemption obligations only through activities that could materially affect the fund's NAV or risk profile, and mitigate dilution.

• What range of levels of three-day liquid assets do commenters anticipate different funds would determine to be appropriate, based on the factors the proposed rule would require a fund to consider? What types of securities do commenters anticipate that different funds would determine are or are not appropriate as three-day liquid asset minimum holdings?

• How many funds today target a minimum level of more liquid assets? If some funds indeed aim to invest a certain portion of their assets in more liquid assets for purposes of liquidity risk management, what types of assets do funds hold for these purposes, and how do funds determine what portion of their net assets they intend to invest in these assets? What burdens and other difficulties, if any, would funds have in initially complying with the three-day liquid asset minimum requirement?

• What are the processes that commenters anticipate a fund would use for determining and reviewing its three-day liquid asset minimum under the proposed rule? Do commenters generally agree with the guidance that the Commission has provided regarding the processes a fund could use to determine and review its three-day liquid asset minimum? Should the minimum frequency of the fund's review of the adequacy of its three-day liquid asset minimum be shorter than semi-annually (such as quarterly) or longer (such as annually)?

• Should the Commission specify certain procedures that a fund must use in determining its three-day liquid asset minimum, such as requiring a fund to consider specific historical redemption scenarios? Should we require that the minimum not be less than, for example, a fund's highest historical level of net redemptions, its average level of net redemptions over some time period, or a multiple (*e.g.*, two times) of those levels?

We request comment on the proposed factors that each fund would be required to consider in determining and reviewing its three-day liquid asset minimum.

• To what extent do funds already consider the proposed factors when determining the portion of fund assets that should be invested in more liquid assets for purposes of liquidity risk management? Do commenters believe it is appropriate for a fund to consider the same set of factors in determining and reviewing its three-day liquid asset minimum as it considers in assessing and reviewing its liquidity risk? Are there other factors that would be preferable?

• Should any of the proposed factors not be required to be considered by a fund in determining and reviewing its three-day liquid asset minimum? Should any of the proposed factors be modified? Are there any additional factors, besides the proposed factors, that a fund should be required to consider?

• Instead of codifying the proposed factors as part of proposed rule 22e–4, should the Commission provide guidance on factors that may be appropriate for a fund to consider in determining and reviewing its three-day liquid asset minimum? Should the Commission provide additional guidance on the proposed factors?

4. Portfolio Liquidity: Limitation on Funds' Investments in 15% Standard Assets

a. 15% Standard Assets

Included in proposed rule 22e–4 is a limit on a fund's ability to acquire ''15% standard assets.'' Specifically, proposed rule 22e–4(b)(2)(iv)(D) would prohibit a fund from acquiring any 15% standard asset if, immediately after the acquisition, the fund would have invested more than 15% of its net assets in 15% standard assets. The provision would not require a fund to divest any holdings if 15% standard assets rise above 15% of its net assets.[354]

Under proposed rule 22e–4(a)(4), a 15% standard asset would be defined as 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.[355] For purposes of the proposed definition, a fund would not be required to take into account the size of the fund's position in the asset or the time period associated with receipt of proceeds of sale or disposition of the asset. We believe that assets included in the definition of 15% standard asset would be consistent with those currently classified as illiquid by funds under the 15% guideline, and that such a limit would be an important limitation on certain relatively illiquid holdings in funds' portfolios, such as private equity investments, securities acquired in an initial public offering, and real estate assets. As noted above, we believe that the 15% guideline has generally caused funds to limit their exposure to particular types of securities that cannot be sold within seven days and the proposed limit on 15% standard assets would continue to limit these exposures.

As discussed above, the Commission and staff have in the past provided guidance in connection with the 15% guideline.[356] We propose to withdraw this guidance because we believe this proposal provides a more comprehensive framework for funds to evaluate the liquidity of their assets. We request comment below on whether additional guidance is needed in connection with the definition of 15% standard asset.

We believe that the proposed limit on 15% standard assets and the proposed three-day liquid asset minimum each serve distinctly important, but interrelated, roles in managing liquidity risk. We therefore propose to require each fund to comply with the limit on 15% standard assets as well as the three-day liquid asset minimum requirement. While the three-day liquid

[354] A fund's investments in 15% standard assets could rise above 15% of the fund's net assets for a variety of reasons. For instance, the fund could sell its most liquid assets in order to obtain cash to meet redemption requests, thereby increasing its holdings of 15% standard assets relative to its total holdings. Or, if the market value of a fund's 15% standard assets rises relative to the market value of the fund's other assets, the percentage of a fund's assets invested in 15% standard assets could increase. Assets that are not 15% standard assets also could become 15% standard assets if market conditions deteriorate. *See supra* note 345 (discussing similar considerations with respect to a fund's holdings of three-day liquid assets).

[355] As discussed above, 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 mutual fund has valued the investment.'' *See supra* note 93. Rule 2a–7(a)(20) defines the term ''illiquid security'' to mean ''a security that cannot 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.'' We understand the terms ''approximately the value at which the . . . fund has valued the investment'' and ''approximately the value ascribed to it by the fund'' to have identical meanings. For the sake of consistency with the language of current rule 2a–7, the definition of 15% standard asset incorporates the ''approximately the value ascribed to it by the fund'' formulation.

[356] *See supra* section II.D.2.

asset minimum requirement would increase the likelihood that each fund holds adequate liquid assets to meet redemption requests without materially affecting the fund's NAV, the limit on 15% standard assets would increase the likelihood that a fund's portfolio is not concentrated in assets whose liquidity is limited and thus may serve as a limit on certain cases of fund illiquidity. While we considered requiring a different percentage-based ceiling on relatively illiquid holdings, we ultimately decided that proposing the 15% standard would effectively accomplish our intended goals while disrupting funds' existing practices to the least extent possible.

While this definition is similar to the definition of an asset that cannot be converted to cash within seven days under the proposed liquidity classification framework, we note several key differences between the definitions. When determining whether an asset may be sold or disposed of within seven calendar days for purposes of assessing whether the asset is a 15% standard asset, a fund need not consider whether it can receive the proceeds of such sale or disposition within the same seven-day time period. In contrast, the classification framework takes into consideration whether a fund could convert an asset to cash—that is, sell the asset and receive cash for the sale within this period. Also, the definition of 15% standard asset does not require a fund to consider any specific factors in determining the circumstances under which an asset may be sold or disposed of. The definition of less liquid asset, on the other hand, requires a fund to consider, as applicable, certain market, trading, and asset-specific factors set forth in proposed rule 22e–4(b)(2)(ii).[357] These factors include the size of a fund's position in a particular portfolio asset relative to the asset's average daily trading volume and (as applicable) the number of units of the asset outstanding, which a fund is not required to assess in determining whether an asset is a 15% standard asset.[358]

To provide an example of the distinctions between the proposed 15% standard and the proposed three-day liquid asset minimum, consider a fund that holds a very large block of a particular security ''X''. Because the fund holds a large block of the issue, it may determine, based on the liquidity classification factors required to be considered under the proposed rule, that it could convert a certain percentage (*e.g.*, 70%) of its position to cash in fewer than three business days, but that it would take more than three business days to convert the remainder of its position to cash. Under the proposed rule, 70% of the fund's position in security ''X'' would be considered three-day liquid assets, and the other 30% would be considered to be less liquid assets. The fund would take these classifications into account when considering whether the further acquisition of less liquid assets would cause the fund to not be in compliance with its three-day liquid asset minimum. However, even though 30% of the fund's position in security ''X'' would be considered to be less liquid assets, the fund's position in security ''X'' would *not* also be considered to be 15% standard assets. This is because, as discussed above, a fund is not required to assess position size in determining whether a particular portfolio asset is a 15% standard asset. Thus, if a fund can sell a standard size lot of its holdings in that position within seven days at approximately the value ascribed to it by the fund, the entire position would be deemed not to be a 15% standard asset.

Consider as well a scenario in which a fund holds shares of security ''Y,'' and the fund determines, based on the liquidity classification factors required to be considered under the proposed rule, that it can *sell* security ''Y'' within seven days at approximately the value ascribed to it by the fund, but whose sale(s) will not also *settle* until the tenth day. Security ''Y'' would fall into the 8–15 day liquidity classification category and would be considered a less liquid asset because it would not be able to be converted to cash within three business days. However, because the fund would be able to sell its shares of security ''Y'' within seven days at approximately the value ascribed to it by the fund, security ''Y'' would not be considered to be a 15% standard asset. This is because a fund is required to consider whether it would be able to sell an asset within seven days, but not also whether those asset sales would settle within this period, in determining whether a particular portfolio asset is a 15% standard asset.[359]

Conversely, consider a fund that holds shares of security ''Z,'' a privately placed security that the fund determines cannot be sold within seven days at approximately the value ascribed to it by the fund. Under the proposed rule, security ''Z'' would be considered a less liquid asset, because it would not be able to be converted to cash (that is, sold, with the sale settled) within three business days. Security ''Z'' also would be considered to be a 15% standard asset, because it would not be able to be sold within seven days at approximately the value ascribed to it by the fund. The fund would take these classifications into account when it is considering whether the further acquisition of less liquid assets or 15% standard assets would cause the fund to not be in compliance with its three-day liquid asset minimum *or* the 15% standard.

The scenarios depicted in the preceding paragraphs demonstrate that the same asset could be deemed to be a less liquid asset but *not* also deemed to be a 15% standard asset, and also illustrate the different roles that the proposed three-day liquid asset minimum and the 15% standard play in liquidity risk management. The proposed 15% standard would provide an across-the-board limitation on the acquisition of certain relatively illiquid holdings. The proposed definition of less liquid asset, on the other hand, is meant to identify those assets that would generally not be able to be converted to cash to meet redemption requests, and the proposed three-day liquid asset minimum is meant to tailor a fund's acquisition of these holdings to correspond with its particular liquidity needs. Thus, the proposed 15% standard acts as a cap on the amount of relatively illiquid assets that a fund may hold, while the proposed three-day liquid asset minimum acts as a floor on the amount of three-day liquid assets that a fund must hold.

b. Request for Comment

We request comment on the proposed 15% standard.

- Do commenters agree that the Commission should include the 15% standard in proposed rule 22e–4? Would the 15% standard enhance funds' ability to manage liquidity risk?
- Do commenters agree that the three-day liquid asset minimum requirement and the 15% standard serve distinct roles in managing liquidity risk? Is there a single alternative standard that would be an effective substitute for the three-day liquid asset minimum requirement and the 15% standard?
- Should the Commission instead adopt a different restriction on funds' investments in assets whose liquidity is extremely limited, and if so, what should this restriction be? For example, should we adopt a different percentage limit on funds' investments in 15% standard assets? Should we instead limit funds' investments in some other subset of assets with extremely limited liquidity, such as assets that can only be converted to cash in over 7 days, over

[357] Proposed rule 22e–4(a)(6).

[358] *See supra* section II.D.2.

[359] *See* proposed rule 22e–4(a)(4).

15 days, over 30 days, or over 90 days at a price that does not materially affect the value of that asset immediately prior to sale? If we did the latter, what should the limit be? Should it be a set percentage of fund assets established by the Commission (*e.g.,* 5%, 10%, 20%, 30%), or should a fund be required to set its own limit, using the factors it would be required to consider in determining its three-day liquid asset minimum (or some other set of factors)? Should this limit apply to all funds, or only a subset of funds (*e.g.,* only funds with certain investment strategies, or whose three-day liquid asset minimums are below a certain threshold)?

• As noted above, the 15% standard would be tested each time the fund acquires new assets, and a fund would be permitted to hold more than 15% of its net assets in 15% standard assets if it does so due to redemptions or market events. Once a fund rises above the 15% limit, any acquisition of new assets must be of non-15% standard assets until the fund is at or below the 15% standard. Would a requirement mandating that a fund divest excess 15% standard assets if its holdings of these assets rise above 15% of its net assets better facilitate funds' liquidity risk management and promote investor protection? Or should we limit the time period (*e.g.,* to 30 days, 60 days, or 90 days) in which a fund holds more than 15% of its net assets in 15% standard assets so that a fund cannot persistently be above the 15% standard? Alternatively, we note that certain Canadian mutual funds are subject to illiquid asset restrictions that provide that a fund: (i) Must not acquire illiquid assets if more than 10% of the fund's net assets would be made up of illiquid assets; (ii) must not have invested more than 15% of the fund's net assets in illiquid assets for a period of 90 days or more; and (iii) must, as quickly as is commercially reasonable, take all necessary steps to reduce the percentage of its net assets made up of illiquid assets to 15% or less if more than 15% of the fund's net assets is made up of illiquid assets.[360] Should we adopt similar requirements? Would such requirements better promote investor protection?

• Should the Commission modify the proposed definition of 15% standard assets to require that funds take into account the time period associated with receipt of proceeds of sale or disposition of an asset?

• Do commenters agree with the proposal to withdraw current guidance associated with the 15% guideline? Do commenters believe additional guidance is needed in connection with the proposed definition of 15% standard asset? If so, what guidance should the Commission provide?

• What assets do funds currently consider to be limited by the 15% guideline? Do commenters believe that assets that would meet the proposed definition of 15% standard asset are consistent with assets that funds currently classify as illiquid under the 15% guideline? If not, what types of assets would be classified differently?

• What are funds' current practices for determining whether a portfolio asset is limited by the 15% guideline, and what factors do funds currently use to make this determination? Who at the fund and/or the adviser is tasked with determining whether a portfolio asset is limited by the 15% guideline, and how often is each asset reviewed? Do funds expect to engage in the same practices for determining whether an asset is a 15% standard asset?

• Would it be beneficial to funds for the Commission to include as part of the rule certain types of securities whose acquisition would be limited by the 15% standard, or other factors for funds to consider in determining whether an asset is a 15% standard asset? Do commenters believe that confusion could arise between the definition of a 15% standard asset and the definition of a less liquid asset under the proposed rule, and if so, how could this confusion be reduced?

• Rule 2a–7 currently defines the term ''illiquid security'' to mean ''a security that cannot 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.'' [361] Should we amend rule 2a–7 to clarify that ''illiquid security'' has the same definition as ''15% standard asset?''

5. Policies and Procedures Regarding Redemptions in Kind

a. Use of Redemptions in Kind

Along with ETFs, which commonly redeem shares in kind, many mutual funds reserve the right to redeem their shares in kind instead of in cash.[362] Mutual funds that reserve the right to redeem in kind may use in-kind redemptions to manage liquidity risk under exceptional circumstances.[363] A fund, for example, could choose to redeem in kind when faced with significant redemptions, because this would result in the redeeming shareholder (and not the fund and its remaining shareholders) bearing any liquidity costs associated with dispositions of portfolio assets. We understand that many funds also use in-kind redemptions if a large shareholder is redeeming to transition to a separately managed account with a similar investment strategy.

There are often logistical issues associated with paying in-kind redemptions, and this limits the availability of in-kind redemptions under many circumstances.[364] For instance, in-kind redemptions could entail complex operational issues that would be imposed on both the fund and on investors receiving portfolio securities.[365] Moreover, some shareholders are generally unable or unwilling to receive in-kind redemptions.[366] Some funds also have

[360] *See* Canadian Securities Administrators, National Instrument 81–102—Investment Funds at section 2.4.

[361] Rule 2a–7(a)(20).

[362] *See, e.g.,* 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 securities in cash or in *kind.''*).

[363] *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.'').

[364] *See, e.g.,* Invesco FSOC Notice Comment Letter, *supra* note 35, at 11 (noting that while ''Invesco has on occasion exercised rights to redeem in kind, in practice such rights are exercised infrequently'').

[365] 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.

[366] *See, e.g.,* Fortune, *supra* note 270, at 47 (''A fund redeeming in kind does so at the risk of its reputation and future business . . .''). In the context of money market funds, we requested comment on whether we should require

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waived the right to redeem in kind with respect to certain relatively small redemption requests under rule 18f–1 under the Investment Company Act, which allows a fund to abide by different in-kind redemption policies for different shareholders without being deemed to create a class of senior securities prohibited by section 18(f)(1) of the Act.[367]

We believe that, as part of a fund's management of its liquidity risk, a fund that engages in or reserves the right to engage in in-kind redemptions should adopt and implement written policies and procedures regarding in-kind redemptions, and we have included this requirement in proposed rule 22e–4.[368] We expect these policies and procedures would address the process for redeeming in kind, as well as the circumstances under which the fund would consider redeeming in kind. Through staff outreach to funds, we understand that while many funds disclose that they have reserved the right to redeem in kind, most of these funds consider redemptions in kind to be a last resort or emergency measure, and many do not have policies or procedures in place that would govern in-kind redemptions. Because the management and personnel capacity of funds facing heavy redemptions and other liquidity stresses would likely be strained as funds attempt to manage these pressures, policies and procedures that dictate the fund's in-kind redemption procedures (which, as discussed above, could be quite complicated and could apply differently to different types of shareholders) would increase the likelihood that in-kind redemptions would be a feasible risk management tool.[369]

b. Requests for Comment

- Our understanding is that redemptions in kind are not used extensively outside ETFs. Is this assumption correct? Do funds that engage in redemptions in kind have policies and procedures regarding those redemptions? Are there steps that funds can take to make redemptions in kind easier to implement?
- Under rule 18f–1, any registered open-end fund that has the right to redeem in kind could file with the Commission a notification of election committing itself to pay in cash all requests for redemptions by any shareholder of record, limited in amount during any ninety-day period to the lesser of $250,000 or 1 percent of the net asset value of the fund at the beginning of the period.[370] Would re-visiting and eliminating funds' ability to limit in-kind redemptions clarify that the Investment Company Act permits funds to redeem shares in kind as well as in cash?

6. Discussion of Additional Liquidity Risk Management Tools

While proposed rule 22e–4 specifies that each fund would be required to adopt a liquidity risk management program incorporating certain specified elements, a fund's program could incorporate liquidity risk management tools beyond the requirements of the proposed rule. We understand that many funds currently engage in certain practices that would not be required by proposed rule 22e–4, but which could enhance funds' ability—in conjunction with the policies and procedures required to be adopted under the proposed rule—to manage liquidity risk. Specifically, we understand based on staff outreach that it is relatively common for funds to establish lines of credit to manage liquidity risk, and that funds may use borrowed money or draw on other funding sources to meet shareholder redemptions, typically during periods of significantly limited market liquidity. We also understand that it is relatively common for certain funds (particularly, funds with strategies involving investment in relatively less liquid portfolio securities) to invest in ETFs to enhance the liquidity of the fund's portfolio. Below we provide guidance funds may wish to consider in using these tools and their role in a fund's liquidity risk management program. We note that the liquidity risk management tools discussed below do not comprise an exhaustive list of liquidity risk management controls or procedures that a fund could consider implementing, nor are we currently proposing to mandate that a fund use these tools as part of its liquidity risk management program.

In addition, there are currently several tools that a fund could use, generally under emergency circumstances, to pay redeeming shareholders during periods in which the fund encounters limited liquidity. As discussed above, many funds reserve the right to redeem their shares in kind instead of in cash, although we understand that many funds that do so consider in-kind redemptions to be a last resort or emergency measure. As a separate emergency measure, money market funds (but not other funds) are currently permitted, under certain circumstances, to permanently suspend shareholder redemptions and liquidate the fund. Below we request comment on whether this tool would be useful and appropriate for the Commission to make available to funds besides money market funds.

a. Borrowing Arrangements and Other Funding Sources

As discussed above, entering into borrowing arrangements and agreements with other potential funding sources could strengthen a fund's management of liquidity risk, as they could be used to pay redeeming shareholders without the need to sell portfolio securities at significantly discounted prices. For example, a fund could establish a committed or uncommitted line of credit with a commercial bank, engage in interfund lending within a family of funds, or use repurchase transactions to generate liquidity.[371] Proposed rule

redemptions in kind for redemptions in excess of a certain size threshold, to ease liquidity strains on the fund and reduce the risks and unfairness posed by significant sudden redemptions. *See* Money Market Fund Reform; Proposed Rule, Investment Company Act Release No. 28807 (June 30, 2009) [74 FR 32688 (July 8, 2009)] (''2009 Money Market Fund Reform Proposing Release''), at section III.B. Commenters generally opposed this type of reform for a variety of reasons, all of which likely would apply equally to funds other than money market funds. For example, most commenters stated that 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 the in-kind distribution. *See* 2013 Money Market Fund Reform Proposing Release, *supra* note 365, at section III.B.9.c.

[367] Under rule 18f–1, any registered open-end fund that has the right to redeem in kind could file with the Commission, on Form N–18F–1, a notification of election committing itself to pay in cash all requests for redemptions by any shareholder of record, limited in amount during any ninety-day period to the lesser of $250,000 or 1 percent of the net asset value of the fund at the beginning of the period. *See* Rule 18f–1 and Form N–18F–1 Adopting Release, *supra* note 362.

[368] See proposed rule 22e–4(b)(2)(iv)(E).

[369] *See infra* notes 552–554 and accompanying text.

[370] *See supra* note 362 and accompanying text.

[371] *See, e.g.,* SIFMA IAA FSOC Notice Comment Letter, *supra* note 16, at nn.73–75 (stating that 79% of SIFMA AMG survey respondents report having access to a line of credit to manage outflows from their mutual funds, that 64% have drawn on that line of credit at some point within the last five years, and that 8% of SIMFA AMG members surveyed state that they engage in interfund lending to address liquidity issues); BlackRock FSOC Notice Comment Letter, *supra* note 50, at 6 (statement that among several overarching principles that provide the foundation for a prudent market liquidity risk management framework for collective investment vehicles is identifying backup sources of liquidity such as temporary borrowings). *But see* Fidelity FSOC Notice Comment Letter, *supra* note 20, at 20 (''During the time period since its inception in 2001, the committed bank line of credit has never been used.''); Comment Letter of PIMCO on the FSOC Notice (Mar. 25, 2015), at Appendix–2 (''In practice, it is rare for funds to . . . draw on these lines of credit.''); Invesco FSOC Notice Comment Letter, *supra* note 35, at 12 (stating that it has a line

22e–4(b)(2)(iii)(D) would require a fund to consider its borrowing arrangements and other funding sources in assessing its liquidity risk, and above we provide guidance on particular aspects of these activities that could affect a fund's liquidity risk.[372] We anticipate that a fund could consider this guidance in assessing whether entering into borrowing or other funding arrangements would assist the fund in managing its liquidity risk, as well as determining the terms under which such arrangements would best help the fund to manage its liquidity risk. We also anticipate that this guidance could be used in reviewing existing borrowing arrangements and the use of other funding sources to assess whether these activities would continue to help the fund effectively manage its liquidity risk. In evaluating borrowing arrangements or other funding sources for purposes of managing liquidity risk, a fund should take into account restrictions on affiliated transactions and leverage under the Investment Company Act and rules under the Act.[373] A fund also may wish to consider any negative impact on the fund resulting from borrowing funds for liquidity risk management purposes, as opposed to managing liquidity through the fund's portfolio construction.[374]

b. Use of ETF Portfolio Holdings as a Liquidity Risk Management Tool

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.[375] Specifically, funds that invest in ETF shares have stated to Commission staff 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.[376] And unlike investments in cash, cash equivalents, and other highly liquid instruments, funds have suggested 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.

While we appreciate that ETFs' exchange-traded nature could make these instruments useful to funds in managing purchases and redemptions (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. As discussed above, the liquidity of an ETF, particularly in times of declining market liquidity, may be limited by the liquidity of the market for the ETF's underlying securities.[377] Thus, shares of an ETF whose underlying securities are relatively less liquid (taking into account the factors discussed in proposed rule 22e–4(b)(2)(ii)) may not be able to be counted on as an effective liquidity risk management tool during times of liquidity 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 investors who count on the creation and redemption process to align the prices of ETF shares and their underlying portfolio securities.[378] 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 an ETF's liquidity under proposed rule 22e–4(b)(2)(i). We also encourage funds to consider the portion of a fund's three-day liquid assets that is invested in ETF shares, taking into account the foregoing concerns.

c. Suspension of Redemptions

Section 22(e) of the Investment Company Act permits a fund to suspend redemptions in specified unusual circumstances, including for any period during which an emergency exists (only as determined by Commission rules and regulations) as a result of which it is not reasonably practicable for the fund to liquidate its portfolio securities, or fairly determine the value of its net assets.[379] Rule 22e–3 exempts money market funds from section 22(e), permitting a money market fund to suspend redemptions and postpone payment of redemption proceeds in an orderly liquidation of the fund if, subject to other requirements, the fund's board makes certain findings.[380] The Commission has previously requested comment on whether the relief provided by rule 22e–3 should be available to types of open-end funds besides money market funds.[381] The Commission received only limited comments addressing the topic, with a few commenters generally supportive of extending the rule to all open-end funds,[382] and one commenter arguing that open-end funds should be required

of credit for its floating rate fund and senior loan portfolio ETF, but that it has been used on a very infrequent basis).

[372] *See supra* notes 315–318 and accompanying and following text.

[373] *See supra* notes 320–322 and accompany and following text.

[374] *See, e.g.,* Nuveen FSOC Notice Comment Letter, *supra* note 45, at 9–10 (''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.'').

[375] *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 Investment Company Act.

[376] 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 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* note 11, at Question #49. *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).

[377] *See supra note* 24 and accompanying text; *see also* Tyler Durden, *What Would Happen if ETF Holders Sold All at Once?,* ETF Daily News (Mar. 26, 2015), *available at http://etfdailynews.com/2015/03/26/what-would-happen-if-etf-holders-sold-all-at-once/2/* (''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.'').

[378] *See supra* note 29 and accompanying text.

[379] See *supra* note 82.

[380] *See supra* note 155 and accompanying text.

[381] *See* 2009 Money Market Fund Reform Proposing Release, *supra* note 366.

[382] *See* Comment Letter of the Committee on Federal Regulation of Securities, Section of Business Law of the American Bar Association on Money Market Fund Reform (Sept. 9, 2009); Comment Letter of Bankers Trust Company, N.A. on Money Market Fund Reform (Aug. 28, 2009).

to seek individual exemptive orders from the Commission to obtain the relief provided by rule 22e–3.[383] We request specific comment below on whether proposing a rule similar to rule 22e–3, which would permit open-end funds other than money market funds to suspend redemptions and postpone payment of redemption proceeds in an orderly liquidation of the fund under certain circumstances, would protect the interests of its investors if the fund were to liquidate.

We also request comment below on whether the Commission should consider proposing rules that would permit funds to suspend redemptions under other circumstances not involving the liquidation of the fund.[384] As discussed above, private funds are often able to impose gates and suspend redemptions to manage liquidity stress,[385] and rule 2a–7 likewise permits money market funds to temporarily suspend redemptions under certain circumstances.[386] Registered funds that are not money market funds, however, are significantly more limited in their current ability to suspend redemptions under the Investment Company Act.[387] Specifically, open-end funds may suspend redemptions for any period during which the NYSE is closed (other than customary weekend and holiday closings) and in three additional situations only if the Commission has made certain determinations.[388] These limited suspension rights are aimed at preventing funds and their advisers from interfering with shareholders' redemption rights for improper purposes,[389] and recognize the importance that shareholders place on daily redeemability of fund shares.

d. Request for Comment

We request comment on the above discussion and guidance regarding certain tools that a fund could use to manage liquidity risk beyond the requirements specified in proposed rule 22e–4.

- Are there any specific liquidity risk management policies or procedures, beyond those that would be required by proposed rule 22e–4(b)(2)(iv)(A)–(E), that funds should be required to implement? What procedures, separate from any that resemble those required by proposed rule 22e–4(b)(2)(iv)(A)–(E), do funds currently use to manage liquidity risk?
- Do commenters generally agree with our guidance discussed above on the use of borrowing arrangements and other funding sources, the use of ETFs to manage portfolio liquidity, and the use of redemptions in kind? Is any additional guidance needed on the liquidity risk management tools described in this section? Are there any other issues associated with specific liquidity risk management tools or techniques about which we should provide guidance? To the extent that funds use liquidity risk management tools outside those mentioned in this section, what guidance, if any, is needed regarding those tools?
- Regarding borrowing arrangements and other funding sources, would additional guidance be useful regarding specific types of borrowing arrangements?
- When using ETFs to manage liquidity, do funds consider the liquidity of the ETFs' portfolio securities? Why or why not?

We also request specific comment on several current rules that touch on liquidity risk management issues and the suspension of shareholder redemptions.

- Would proposing a rule similar to rule 22e–3 for funds other than money market funds protect the interests of fund investors if the fund were to liquidate? If so, under what circumstances should funds be permitted to suspend redemptions and postpone payment of redemption proceeds, and should a fund's board be required to make any finding in connection with a fund's suspension of redemptions?
- Should we consider proposing rules that would permit funds to suspend redemptions under other circumstances, such as rules that would specify certain emergency circumstances that would permit funds to suspend redemptions under section 22(e)? How could we define such emergency circumstances? For example, should we define emergency circumstances to include situations where redemptions exceeded a high level over a certain period of time or where asset price volatility in the markets exceeded a certain level making it difficult for the fund to accurately price?

7. Cross-Trades

Funds, subject to the requirements of the Investment Company Act, are permitted to engage in "cross-trading," that is, securities transactions with certain of their affiliated persons, including other funds within the fund family. Some funds may seek to use cross-trading as an additional liquidity risk management tool. Rule 17a–7, however, includes conditions that limit the portfolio assets that may be cross-traded, and as discussed below, cross-trades that involve certain less liquid assets may not be eligible to rely on the rule. We propose below guidance relating to the use of cross-trading in response to investor redemptions.

Section 17 of the Investment Company 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.[390] 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).[391]

Cross-trading can benefit funds and their shareholders, for example by allowing funds that are mutually interested in a securities transaction that is consistent with the investment strategies of each fund to conduct such a transaction without incurring transaction costs and without generating a market impact.[392] However, cross-

[383] *See* Comment Letter of Federated Investors, Inc. on Money Market Fund Reform (Sept. 8, 2009).

[384] *See, e.g.,* BlackRock FSOC Notice Comment Letter, *supra* note 50, at 40 (stating that the Commission should "extend the authority to suspend redemptions under extraordinary redemptions, including an unmanageable spike in redemptions, to fund boards.").

[385] *See supra* note 71 and accompanying text.

[386] *See supra* note 154 and accompanying text.

[387] *See supra* text accompanying note 379.

[388] *See supra* note 82.

[389] *See* 2014 Money Market Fund Reform Adopting Release, *supra* note 85, at section III.A.1.

[390] *See supra* note 320 and accompanying text.

[391] Rule 17a–7 under the Investment Company Act provides an exemption from section 17(a)'s prohibitions so long as certain conditions are met. In summary, rule 17a–7 requires, among other things, that: (i) The transaction at issue is a purchase or sale, for no consideration other than cash, for a security for which market quotations are readily available; (ii) the transaction be effected at the independent current market price for the security at issue; (iii) the transaction must be consistent with the policy of each fund participating in the transaction as set forth in its registration statement and reports filed under the Investment Company Act; (iv) no brokerage commission, fee (except for customary transfer fees) or other remuneration be paid in connection with the transaction; and (v) the fund's board, including a majority of the independent directors, adopts procedures that are reasonably designed to provide that the rule 17a–7 transactions comply with the conditions of the rule, approve changes to the procedures as the board deems necessary, and determines no less frequently than quarterly that all rule 17a–7 transactions made during the preceding quarter were effected in compliance with the approved procedures.

[392] 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

trades also have the potential for abuse. As the Commission has said, ''[f]or example, an unscrupulous investment adviser might ''dump'' undesirable securities on a registered investment company or transfer desirable 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.'' [393] 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.[394] 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 and do not involve overreaching.'' [395]

Certain less liquid assets may be ineligible to trade under rule 17a–7 due to this requirement. Indeed, the less liquid an asset is, the more likely it may not satisfy rule 17a–7.[396] Accordingly, for assets that do not trade in active secondary markets, a fund should consider whether ''market quotations are readily available'' and a ''current market price'' is available and thus whether the asset may be cross-traded in accordance with rule 17a–7.

In addition, when considering whether cross-trading would be an effective and appropriate liquidity risk management tool, a fund's adviser should consider its duty to seek best execution for each fund potentially involved in the cross-trading transaction, as well as its duty of loyalty to each fund.[397] An adviser should not cause funds to enter into a cross-trade unless doing so would be in the best interests of each fund participating in the transaction. In assessing these factors, a fund should consider any negative impact on the fund resulting from the purchase of assets by one fund from an affiliated fund (that is, whether any risk-shifting between funds that results from trading assets is appropriate, considering the funds' strategies, risk profile, and liquidity needs before the transaction takes place) given the policy of each fund as recited in its registration statement and reports under the Act. We request comment on our guidance relating to cross-trading.

- Does our guidance (combined with existing guidance) relating to rule 17a–7 provide sufficient protections for cross-trades involving assets that are only traded over the counter and, depending on the facts and circumstances, may be less liquid? If not, what additional guidance or protections might be warranted to protect funds and investors from unfairness or abuse in cross-trades?

D. Board Approval and Designation of Program Administrative Responsibilities

1. Initial Approval of Liquidity Risk Management Program

Proposed rule 22e–4(b)(3)(i) would require each fund to obtain initial approval of its written liquidity risk management program from the fund's board of directors, including a majority of independent directors.[398] The proposed rule specifies that this approval is required to include the fund's three-day liquid asset minimum. Directors, and particularly independent directors, play a critical role in overseeing fund operations, although they may delegate day-to-day management to a fund's adviser.[399] Given the board's historical oversight role, we believe it is appropriate to require a fund's board to approve the fund's liquidity risk management program. This requirement is designed to facilitate independent scrutiny by the board of directors of the liquidity risk management program—an area where there may be a conflict of interest between the investment adviser and the fund. For example, an adviser might have an incentive to set a low three-day liquid asset minimum in order to permit the fund to invest in additional less liquid assets (because such assets may result in higher total returns for a fund), even though a low minimum may not reflect an appropriate alignment between the fund's portfolio liquidity profile and the fund's liquidity needs.

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 or officers administering the program, legal counsel, or other persons familiar with the liquidity risk management program. 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, including how the fund's investment adviser or officers administering the program determined the fund's three-day liquid asset minimum. In considering whether to approve a fund's liquidity risk management program, the board may wish to consider the nature of the fund's liquidity risk exposure. A board also may wish to consider the adequacy of the fund's liquidity risk management program in light of recent experiences regarding the fund's liquidity, including any redemption pressures experienced by the fund.

2. Approval of Material Changes to Liquidity Risk Management Program and Oversight of the Three-Day Liquid Asset Minimum

Proposed rule 22e–4(b)(3)(i) also would require each fund to obtain approval of any material changes to the fund's liquidity risk management program, including changes to the

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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.

[393] 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)].

[394] *See* rule 17a–7(b).

[395] 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 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.*

[396] *See supra* section III.B.2 (discussing proposed factors for classifying the liquidity of a portfolio position).

[397] *See, e.g.,* In the Matter of Western Asset Management Co., Investment Company Act Release No. 30893 (Jan. 27, 2014) (settled action) (the adviser to funds 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'').

[398] In this release, we refer to directors who are not ''interested persons'' of the fund as ''independent directors.'' Section 2(a)(19) of the Investment Company Act identifies persons who are ''interested persons'' of a fund.

[399] *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 (1979) (citing Tannenbaum v. Zeller, 552 F.2d 402, 406 (2d. Cir. 1979)) (describing independent directors as ''independent watchdogs''). *See also* Comment Letter of the Independent Directors Council on the FSOC Notice (Mar. 25, 2015), at 5 (''A fund board oversees the adviser's management of the portfolio's liquidity as part of its oversight of the fund's compliance program and portfolio management more generally.'').

fund's three-day liquid asset minimum, from the fund's board of directors, including a majority of independent directors. As with the initial approval of a fund's liquidity risk management program, the requirement to obtain approval of any material changes to the fund's liquidity risk management program from the board is designed to facilitate independent scrutiny of material changes to the liquidity risk management program by the board of directors. We note that our proposal to require directors to approve material changes to the fund's liquidity risk management program differs from the requirements under rule 38a–1 under the Act, which does not require a fund board to approve changes to a fund's compliance policies and procedures.[400] Given that the fund's liquidity risk management program will be administered by a fund's investment adviser or officers (rather than a chief compliance officer),[401] we believe that board approval of material changes in this context will provide an important independent check on such administration.

The fund's board would be responsible under the proposed rule for reviewing a written report from the fund's investment adviser or officers administering the fund's liquidity risk management program, provided no less frequently than annually, that reviews the adequacy of the fund's liquidity risk management program, including the fund's three-day liquid asset minimum, and the effectiveness of its implementation.[402] This aspect of the proposed rule is designed to facilitate board oversight over the adequacy and effectiveness of the fund's liquidity risk management program, including the three-day liquid asset minimum and whether the three-day liquid asset minimum is providing an appropriate level of minimum liquidity to the fund in light of changes in the markets, the fund, and its shareholder base over time. To the extent that the board is being asked to approve a change in a fund's three-day liquid asset minimum, the written report should also provide directors with an understanding of how a change to the fund's three-day liquid asset minimum was determined to be appropriate. We believe that this review and its related report will provide the board with sufficient information to provide oversight over the adequacy and effective implementation of the fund's liquidity risk management program. As with the initial approval of each fund's liquidity risk management program, directors may also wish to consider the nature of the fund's liquidity risk exposure in approving any material changes, particularly with respect to the fund's three-day liquid asset minimum.

3. Designation of Administrative Responsibilities to Fund Investment Adviser or Officers

Proposed rule 22e–4(b)(3)(iii) would expressly require a fund to designate the fund's investment adviser or officers (which may not be solely portfolio managers of the fund) responsible for administering the fund's liquidity risk management program, which designation must be approved by the fund's board of directors. Designating the fund's investment adviser or officers responsible for the administration of the fund's liquidity risk management program, subject to board oversight, is consistent with the way we understand most funds currently manage liquidity.[403] The proposed designation also tasks the persons 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. In administering a fund's liquidity risk management program, the fund's investment adviser or officers may wish to consult with the fund's portfolio manager, traders, risk managers, and others as necessary or appropriate (*e.g.,* to obtain information used in classifying the liquidity of a new portfolio position), but we note that the fund's portfolio managers may not be solely responsible for administering the program.

We understand, based on staff outreach, that some funds employ a dedicated risk management officer and task liquidity risk management to this officer, in consultation with the fund's portfolio management function. The board of a fund that employs a dedicated risk management officer (or an officer whose role includes risk management among other duties) may find it appropriate to designate administration of the fund's liquidity risk management program to this officer. We request comment below on whether a fund should be required to specifically task administration of the fund's liquidity risk management program to a dedicated risk officer, or whether we should otherwise specify the officer who must administer the fund's liquidity risk management program.

Because the administration of a fund's liquidity risk management program would be designated to a fund's investment adviser or officers, the investment adviser or officers should provide the board with enough information to oversee such administration. As discussed above, the fund's investment adviser or officers would therefore be required to provide the board with a written report on the adequacy of the fund's liquidity risk management program, including the three-day liquid asset minimum, and the effectiveness of its implementation, at least annually. To the extent that a serious compliance issue arises under the program, it may be appropriate to consider whether the event should be brought to the board's attention promptly.[404]

We understand that, in certain circumstances, a fund's service providers may assist a fund and its investment adviser in monitoring factors relevant to a fund's liquidity risk and managing the fund's liquidity risk. For example, third parties could provide data relevant to assessing fund flows. Also, a sub-adviser's portfolio management responsibilities would involve investing a fund's assets in accordance with the fund's three-day

[400] Rule 38a–1 requires that the fund's chief compliance officer provide a written annual report to the fund's board addressing, among other things, any material changes made to the fund's compliance policies and procedures since the date of the last report and any material changes to the fund's compliance policies and procedures recommended as a result of the fund's annual review of the adequacy of such policies and procedures and the effectiveness of their implementation.

[401] Rule 38a–1 contains several provisions ''designed to promote the independence of the chief compliance officer from the management of the fund.'' *See* Rule 38a–1 Adopting Release, *supra* note 90. These include: Rule 38a–1(a)(4)(i) (designation and compensation of the chief compliance officer must be approved by the fund's board, including a majority of the fund's independent directors); rule 38a–1(a)(4)(ii) (the chief compliance officer can only be discharged from his or her responsibilities with the approval of the fund's board, including a majority of the fund's independent directors); rule 38a–1(a)(4)(iii) (the chief compliance officer must provide an annual report to the board addressing: (i) The operation of the policies and procedures of the fund and certain service providers since the last report; (ii) any material changes to the policies and procedures since the last report; (iii) any recommendations for material changes to the policies and procedures as a result of the annual review; and (iv) any material compliance matters since the date of the last report); and rule 38a–1(a)(4)(iv) (requiring the chief compliance officer to meet separately with the fund's independent directors at least once a year).

[402] Proposed rule 22e–4(b)(3)(ii).

[403] *See* Federal Regulation Of Securities Committee, American Bar Association, Fund Director's Guidebook (4th ed. 2015), at p. 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.'').

[404] See Rule 38a–1 Adopting Release, supra note 90 (noting, in the case of a rule 38a–1 compliance program, that ''[s]erious compliance issues must, of course, always be brought to the board's attention promptly'').

liquid asset minimum and any other liquidity-related portfolio requirements adopted by the fund.[405] While we understand that such actions could provide useful assistance to a fund in assessing, monitoring, and managing liquidity risk, we note that the primary parties responsible for a fund's liquidity risk management are the fund itself and any parties to whom the fund has designated responsibility for administering the fund's liquidity risk management program. A fund (or its investment adviser, to the extent the investment adviser has been given liquidity risk management responsibility) should thus oversee any liquidity risk monitoring or risk management activities undertaken by the fund's service providers, and we encourage a fund (or its investment adviser, as appropriate) 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.

4. Request for Comment

We request comment on the proposed board approval and oversight requirements.

- Do fund boards currently approve procedures for classifying the liquidity of portfolio assets? Do fund boards take any additional steps to oversee the liquidity of portfolio assets? Should the Commission require boards, including a majority of independent directors, to approve the initial liquidity risk management program, including the three-day liquid asset minimum?
- Should the Commission require boards to approve material changes to a fund's liquidity risk management program, including any changes to a fund's three-day liquid asset minimum? Should the Commission define what would constitute a ''material change'' to a fund's liquidity risk management program or provide additional guidance regarding what changes would constitute material changes? Alternatively, should the Commission require boards to approve all changes to a fund's liquidity risk management program? Or, similar to rule 38a–1 regarding a fund's compliance program, should there be no requirement for board approval of changes to the liquidity risk management program?
- Does the release provide adequate guidance to fund boards regarding their approval of the liquidity risk management program? Should we provide any additional guidance in this regard?
- Do commenters agree that it would be appropriate to require a fund to designate the fund's adviser or officers responsible for administering a fund's liquidity risk management program, subject to board approval? Is it appropriate to specify that those administering the program may not be solely the fund's portfolio managers? Would any small fund complexes have difficulty meeting the proposed requirement that the program may not be solely administered by the fund's portfolio manager? Is it appropriate to allow a fund to designate a fund sub-adviser responsible for administering a fund's liquidity risk management program? Should the Commission require a fund to task administration of the fund's liquidity risk management program to a specific officer of the fund? Should the Commission require that a fund have a chief risk officer or risk committee administer the fund's liquidity risk management program?
- Should the Commission specify a shorter or longer frequency for review of a report on the fund's liquidity risk management program? Should the report to the board cover both the adequacy and effectiveness of the fund's liquidity risk management program as well as the adequacy of the fund's three-day liquid asset minimum? Alternatively, would a report reviewing the adequacy of the fund's three-day liquid asset minimum likely provide a review of the fund's liquidity risk management program overall given the factors that must be assessed in setting the three-day liquid asset minimum?
- Are there other aspects of the fund's liquidity risk management program about which the fund's investment adviser or officers responsible for administering the program should report to the board? Should we provide any additional guidance to fund boards in connection with the approval and oversight of a fund's liquidity risk management program?

E. Liquidity Risk Management Program Recordkeeping Requirements

We are proposing to require that each fund 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.[406] Each fund also would 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 approvals of any subsequent material changes to the program, including any changes to the fund's three-day liquid asset minimum, and copies of written reports provided to the board that review the adequacy of the fund's liquidity risk management program, including the fund's three-day liquid asset minimum, and the effectiveness of its implementation.[407] Funds would have to maintain such records 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.

Finally, we are proposing to require that each fund keep a written record of how its three-day liquid asset minimum, and any adjustments thereto, were determined, including the fund's assessment and periodic review of its liquidity risk in light of the factors incorporated in paragraphs (b)(2)(iii)(A) through (D) of proposed rule 22e–4.[408] Funds would have to maintain such records 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 three-day liquid asset minimum.

The records discussed above are designed to provide our examination staff with a basis to determine whether a fund has adopted a liquidity risk management program in compliance with the requirements of proposed rule 22e–4. Specifically, such records would help our staff to determine whether a fund's program incorporates the elements required to be included under paragraph (b)(2) of proposed rule 22e–4. We also anticipate that these records would assist our staff in identifying weaknesses in a fund's liquidity risk management if violations do occur or are uncorrected.

The five-year retention period in proposed rule 22e–4(c) is consistent with that in rule 38a–1(d) under the Act. We believe consistency in these retention periods is appropriate because funds currently have program-related recordkeeping procedures in place incorporating a five-year retention period, which we believe would lessen the compliance burden to funds slightly, compared to choosing a different retention period, such as the six-year recordkeeping retention period under rule 31a–2 of the Act. Taking this into account, we believe a five-year retention period is a sufficient period of time for our examination staff to evaluate whether a fund is in compliance (and

[405] A fund could also formally designate a fund's sub-adviser as responsible for the fund's liquidity risk management program.

[406] Proposed rule 22e–4(c)(1).

[407] Proposed rule 22e–4(c)(2); *see also* proposed rule 22e–4(b)(3)(i)–(ii).

[408] Proposed rule 22e–4(c)(3).

has been in compliance) with the liquidity risk management program requirements of the rule and anticipate that such information would become less relevant if extended beyond a five-year retention period. Furthermore, we believe that the proposed five-year retention period appropriately balances recordkeeping-related burdens on funds.

We request comment on the proposed liquidity risk management program recordkeeping requirements.

▪ Do commenters agree that the proposed recordkeeping requirements are appropriate? Specifically, are there any additional records associated with a fund's liquidity risk management program that a fund should be required to keep? Should a fund be required to keep a written record of how the liquidity classifications of each of the fund's positions in a portfolio asset were determined, including assessment of the factors set forth in proposed rule 22e–4(b)(2)(ii)? Should a fund be required to keep a written record of what liquidity classifications were determined for each of the fund's positions in a portfolio asset? Do commenters anticipate that, to the extent that data regarding certain factors that a fund would be required to consider in classifying its portfolio positions' liquidity could be obtained largely through automated systems, it would be possible to easily re-create a record of how past liquidity classifications assigned to a fund's portfolio positions were determined? Are there feasible alternatives to the proposed rule that would minimize recordkeeping burdens, including the costs of maintaining the required records?

▪ Do commenters agree that the five-year retention period for records that would be required to be kept pursuant to proposed rule 22e–4(c) is appropriate? If not, what retention period would commenters recommend? Would commenters recommend a six-year retention period? Why or why not?

▪ We specifically request comment on any alternatives to the proposed recordkeeping requirements that would minimize recordkeeping burdens on funds, the utility and necessity of the proposed recordkeeping requirements in relation to the associated costs and in view of the public benefits derived, and the effects that additional recordkeeping requirements would have on funds' internal compliance policies and procedures.[409]

[409] *See* sections 30(c)(2)(A), 30(c)(2)(B), and 31(a)(2) of the Investment Company Act.

F. Swing Pricing

Rule 22c–1 under the Investment Company Act, the ''forward pricing'' rule, requires funds, their principal underwriters, dealers in fund shares, and other persons designated in a fund's prospectus, 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.[410] When a fund trades portfolio assets as a result of purchase or redemption requests, costs associated with this trading activity can dilute the value of the existing shareholders' interests in the fund. This dilution occurs because the price at which shareholders transact in fund shares reflects the shares' current NAV that is next computed after the fund's receipt of the shareholders' purchase and redemption requests (generally, the fund's NAV calculated as of the close of the fund's primary underlying market, which is typically 4 p.m. Eastern Time),[411] but the fund's NAV will not generally reflect changes in holdings of the fund's portfolio assets and changes in the number of the fund's outstanding shares until the first business day following the fund's receipt of the shareholders' purchase and redemption requests.[412] Thus, the price that a purchasing shareholder pays for fund shares customarily does not take into account the market impact costs and trading costs that arise when the fund buys portfolio assets in order to invest proceeds of shareholder purchases. Likewise, the price that a redeeming shareholder receives for fund shares customarily does not take into account the market impact costs and trading costs that arise when the fund sells portfolio assets in order to meet shareholder redemptions. Going forward, however, the NAV of the fund shares held by existing shareholders does reflect these costs, and thus these costs are borne not by the purchasing or redeeming shareholders but by all existing fund shareholders.[413]

While forward pricing captures the changes in portfolio assets' value that arise as a result of market-wide trading, it does not necessarily reflect any disparity between the market price of a portfolio asset at the end of the day (as determined for purposes of striking a fund's NAV) and the price that a fund receives for trading that asset. This scenario could arise, for example, in situations in which an asset's value changes throughout the day, and the price that a fund receives when trading that asset differs from the market value of the asset at the end of the day. It also could arise if a fund were forced to sell a relatively less liquid asset at an inopportune time, and thus had to accept a price for that asset that incorporates a significant discount to the asset's stated value.

To provide an illustration of a situation in which forward pricing may not result in a fund's NAV reflecting the price that a fund actually received when it sold portfolio assets, consider the following example. If a fund has valued portfolio asset X at $10 at the beginning of day 1, and market activity on day 1 (including the fund's sale of portfolio asset X) decreases the market value of portfolio asset X to $9 at the end of day 1, the fund's remaining holdings of portfolio asset X at the end of day 1 would be valued at $9 to reflect the asset's market value on that day. However, staff outreach has shown that it is common industry practice, as permitted by rule 2a–4, for the fund's current NAV to not reflect the actual price at which the fund has sold the

[410] *See* rule 22c–1(a). Prior to adoption of rule 22c–1, investor orders to purchase and redeem could be executed at a price computed before receipt of the order, allowing investors to lock-in a low price in a rising market and a higher price in a falling market. The forward pricing provision of rule 22c–1 was designed to eliminate these trading practices and the dilution to fund shareholders which occurred as a result of backward pricing. Pricing of Redeemable Securities for Distribution, Redemption, and Repurchase, Investment Company Act Release No. 14244 (Nov. 21, 1984) [49 FR 46558 (Nov. 27, 1984)], at text following n.2.

[411] *See supra* note 41 and accompanying text.

[412] *See* rule 2a–4(a)(2) (providing that changes in holdings of portfolio securities shall be reflected in the fund's current NAV no later than in the first calculation on the first business day following the trade date); rule 2a–4(a)(3) (providing that changes in the number of outstanding shares of the registered company resulting from distributions, redemptions, and repurchases shall be reflected in the fund's current NAV no later than in the first calculation on the first business day following such change); *see also* BlackRock, *Swing Pricing: The Dilution Effects of Trading Activity* (Dec. 2011), *available at http://www2.blackrock.com/content/groups/internationalsite/documents/literature/1111157589.pdf* (''BlackRock Swing Pricing Paper'').

[413] *See* Association of the Luxembourg Fund Industry, *Swing Pricing: Survey, Reports & Guidelines* (Feb. 2011), *available at http://www.alfi.lu/sites/alfi.lu/files/ALFI_Swing_Pricing.pdf* (''Luxembourg Swing Pricing Survey, Reports & Guidelines''), at 13 (''[T]he single price at which investors buy and sell the fund's shares only reflects the value of its net assets. It does not take into account the dealing costs that arise when the portfolio manager trades as a result of capital activity incurring a spread on the underlying securities. In other words, the charges incurred fall not on the client who has just traded, but on all investors in the fund.'').

To the extent that a fund were to apply a purchase fee or redemption fee, shareholders would, at least to a certain extent, bear the transaction-related costs associated with their purchase and redemption requests. *See infra* notes 421–422 and accompanying text; *see also* Securities and Exchange Commission, *Mutual Fund Fees and Expenses, available at http://www.sec.gov/answers/mffees.htm.*

portfolio assets until the next business day following the sale.[414] In the example above, if the fund selling portfolio asset X sold the asset during the day at $8 on day 1, the price that the fund received for these asset sales would not be reflected in the fund's NAV until day 2. Thus, redeeming shareholders would have received an exit price that would reflect portfolio asset X being valued at the close of the market at $9 on day 1, whereas remaining shareholders would hold shares on day 2 whose value reflects portfolio asset X being sold at $8 (the actual price that the fund received when it sold the asset on day one).

Similarly, as noted above, the price that a purchasing shareholder pays for fund shares normally does not take into account trading and market impact costs that arise when the fund buys portfolio assets to invest the proceeds received from shareholder purchases. For example, when a fund experiences net inflows, it may invest the proceeds of shareholder purchases over several days following the purchase of fund shares. Thus, the purchase price that shareholders receive on day 1 would not reflect any transaction fees associated with investing the proceeds of shareholder purchases on subsequent days, or any market activity (including the fund's purchase of portfolio assets) that increases the value of the fund's portfolio assets. To illustrate, if the fund's NAV on day 1 (and the purchase price an incoming shareholder were to receive on day 1) reflects portfolio asset X being valued at $10, but the fund were to purchase additional shares of portfolio asset X on day 2 at $11, the price that a purchasing shareholder pays on day 1 would not reflect the costs of investing the proceeds of the shareholder's purchases of fund shares. These costs instead would be reflected in the fund's NAV on days following the shareholder's purchase, and thus would be borne by all of the investors in the fund, not only the shareholders who purchased on day 1.

Certain foreign funds currently use ''swing pricing,'' the process of adjusting the fund's NAV to effectively pass on the market impact costs,[415] spread costs,[416] and transaction fees and charges stemming from net capital activity (*i.e.*, flows into or out of the fund) to the shareholders associated with that activity, in order to protect other shareholders from dilution arising from these costs. Investment management industry representative associations operating in certain European jurisdictions have adopted guidelines on swing pricing procedures in recent years,[417] and a survey conducted by the Association of the Luxembourg Fund Industry (''ALFI'') several years ago confirmed a strong directional trend towards the adoption of swing pricing among major market participants in that jurisdiction, which is a significant jurisdiction for the organization of UCITS funds in Europe.[418] Likewise, several comments from asset managers received in response to the FSOC Notice[419] noted favorably that funds regulated under the UCITS Directive use swing pricing to allocate transaction costs to purchasing and redeeming shareholders.[420]

Commission rules and guidance do not currently address the ability of a fund to use swing pricing to mitigate potential dilution of fund shareholders. The Commission has previously recognized that excessive trading of mutual fund shares could dilute the value of long-term investors' shares,[421] however, and in response to this, the Commission adopted rule 22c–2 under the Investment Company Act. Rule 22c–2, among other things, permits a fund to impose a fee of up to two percent on shareholders' redemptions and requires fund boards to consider imposing redemption fees under certain circumstances.[422] While redemption

[414] *See* 2a–4(a)(2) (providing that changes in holdings of portfolio securities shall be reflected in the fund's current NAV no later than in the first calculation on the first business day following the trade date). The next day's NAV would generally reflect the cash receivable from the sale instead of the value of the shares that were sold (although if the shares were sold and settled within a T+0 or T+1 timeframe, the next day's NAV would reflect the value of the shares that were sold).

[415] Market impact costs are incurred when the price of a security changes as a result of the effort to purchase or sell the security. Stated formally, market impacts are the 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. Market impact cost cannot be calculated directly. It can be roughly estimated by comparing the actual price at which a trade was executed to prices that were present in the market at or near the time of the trade. *See* Concept Release: Request for Comments on Measures to Improve Disclosure of Mutual Fund Transaction Costs, Investment Company Act Release No. 26313 (Dec. 18, 2003) [68 FR 74819 (Dec. 24, 2003)] (''Transaction Cost Concept Release'').

[416] Spread costs are incurred indirectly when a fund buys a security from a dealer at the ''asked'' price (slightly above current value) or sells a security to a dealer at the ''bid'' price (slightly below current value). The difference between the bid price and the asked price is known as the ''spread.'' *See* Transaction Cost Concept Release, *supra* note 415. For equity securities listed on an exchange, the costs associated with trading the security typically take the form of brokerage commissions, as opposed to spread costs.

[417] *See, e.g.*, Luxembourg Swing Pricing Survey, Reports & Guidelines, *supra* note 413; Association Francaise de la Gestion Financière, *Charte de bonne conduit pour le Swing Pricing et les droits d'entrée et de sortie ajustables acquis aux fonds* (2014), available at *http://www.afg.asso.fr/index.php?option=com_content&view=article&id=5459%3Acharte-de-bonne-conduite-pour-le-swing-pricing-et-les-droits-dentree-et-de-sortie-ajustables-acquis-aux-fonds&catid=527%3A2014&lang=fr*.

The European Commission's 2009 revised Undertakings for Collective Investment in Transferable Securities (''UCITS'') Directive does not specifically provide for swing pricing, but does provide that ''[t]he rules for the valuation of assets and the rules for calculating the sale or issue price and the repurchase or redemption price of the units of a UCITS shall be laid down in the applicable national law, in the fund rules or in the instruments of incorporation of the investment company.'' *Directive 2009/65/EC of the European Parliament and of the Council of 13 July 2009 on the coordination of laws, regulations, and administrative provisions relating to undertakings for collective investment in transferable securities*, Official J. of the European Union (Nov. 2009), available at *http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:2009:302:0032:0096:en:PDF*, at Article 85.

[418] *See* Luxembourg Swing Pricing Survey, Reports & Guidelines, *supra* note 413; *see also* BlackRock Swing Pricing Paper, *supra* note 412 (discussing the results of the ALFI survey). The results of the ALFI survey indicated that the majority of respondents were already using swing pricing, and the number of fund managers using swing pricing had tripled over the previous five years.

[419] *See supra* note 16.

[420] *See* Comment Letter of AllianceBernstein L.P. on the FSOC Notice (Mar. 25, 2015) (noting that UCITS funds may utilize swing pricing to ''accurately reflect the costs borne by other shareholders stemming from transaction costs''); BlackRock FSOC Notice Comment Letter, *supra* note 50, at 5 and 39 (recommending that policy makers consider a ''mechanism to allocate transaction costs to redeeming shareholders as a way to provide a price signal for the price of market liquidity and to reimburse or buffer a fund's remaining shareholders''); *see also* Nuveen FSOC Notice Comment Letter, *supra* note 45, at n.26 (''The SEC could also study proposals to change the pricing mechanisms for mutual fund subscriptions and redemptions in such a way that, under certain pre-specified circumstances, subscribing and redeeming shareholders would bear the cost of portfolio transactions necessary to invest cash for new subscriptions and to fund redemptions.''); Occupy the SEC FSOC Notice Comment Letter, *supra* note 45, at 13 (stating that investors buying or selling large amounts of fund shares impose costs on the fund that results in inequitable outcomes as long-term investors subsidize those who trade more actively and that for funds that hold illiquid assets these externalities can become quite material).

[421] *See, e.g.*, Mutual Fund Redemption Fees, Investment Company Act Release No. 26782 (Mar. 11, 2005) [70 FR 13328 (Mar. 18, 2005)] (''Rule 22c–2 Adopting Release'') at n.7 and accompanying text.

[422] Rule 22c–2 prohibits a fund from redeeming shares within seven days after the share purchase unless the fund meets three conditions. *See* rule 22c–2(a). First, the board of directors must either: (i) Approve a redemption fee (in an amount not to exceed two percent of the value of shares redeemed), or (ii) determine that imposition of a redemption fee is either not necessary or not appropriate. Second, the fund (or its principal underwriter or transfer agent) must enter into a written agreement with each financial intermediary under which the intermediary agrees to, among other things: (i) Provide, at the fund's request, identity and transaction information about shareholders who hold their shares through an account with the intermediary; and (ii) execute instructions from the fund to restrict or prohibit

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fees (or purchase fees) could mitigate dilution arising from shareholder transaction activity, implementing a fee requires coordination with the fund's service providers, which could entail operational complexity. On the other hand, adjusting a fund's NAV, like imposing a fee, could pass on transaction-related costs to purchasing and redeeming shareholders, but could be simpler to implement because this adjustment would occur pursuant to the fund's own procedures (as opposed to involving the intermediaries' systems) and would be factored into the process by which a fund strikes its NAV. However, the Commission has not addressed whether a fund might adjust its current NAV to lessen dilution of the value of a fund's outstanding securities, and the Commission's current valuation guidance could raise questions about making such a NAV adjustment.[423]

Because we believe that swing pricing could be a useful tool in mitigating potential dilution of fund shareholders, we are proposing rule 22c–1(a)(3), which would permit certain mutual funds (but not ETFs or money market funds) to use swing pricing under certain circumstances. Proposed rule 22c–1(a)(3) specifies the conditions under which we believe swing pricing would be appropriately used. Below we describe in detail the proposed requirements that a fund using swing pricing would be obliged to follow, the objectives of the proposed rule, and certain considerations that a fund should generally assess in determining whether swing pricing would be an effective tool to prevent fund dilution and promote fairness among all its shareholders. The proposed rule is designed to promote *all* shareholders' interests and promote practices that seek to ensure that a fund's shares are purchased and redeemed at a fair price.[424] We also believe that the proposed rule would provide a set of operational standards that would allow U.S. funds to gain comfort using swing pricing as a new means of mitigating potential dilution. We recognize that implementing swing pricing could give rise to a number of operational issues and questions, and we provide guidance and request comment on relevant operational considerations below.

1. Proposed Rule 22c–1(a)(3)

a. Overview and Objectives of Proposed Rule

Under proposed rule 22c–1(a)(3), a registered open-end investment company (but not a registered investment company that is regulated as a money market fund,[425] and not including an exchange-traded fund [426]) would be permitted to establish and implement policies and procedures providing for the fund to adjust its current NAV to mitigate dilution of the value of its outstanding redeemable securities as a result of shareholder purchase and redemption activity.[427] Specifically, a fund [428] would be permitted to establish and implement swing pricing policies and procedures that would require a fund to adjust its NAV under certain circumstances, provided that the fund's board (including a majority of directors who are not interested persons of the fund) [429] must approve these policies and procedures, and the policies and procedures must include certain specified elements.[430] A fund's swing pricing policies and procedures must provide that the fund will adjust its NAV by an amount designated as 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 net asset value known as the ''swing threshold.'' [431] A fund would be required to adopt policies and procedures for determining and periodically reviewing its swing threshold. A fund's swing pricing policies and procedures also would be required to include policies and procedures for determining a swing factor that would be used to adjust the fund's NAV when the fund's swing threshold is breached. While the swing factor could vary depending on the facts and circumstances, a fund's policies and procedures for determining its swing factor must take certain specified factors into account.[432] A fund's board must approve the swing pricing policies and procedures (including the fund's swing threshold), as well as any material change thereto,[433] and the board would be required to designate the fund's adviser or officers responsible for administering the policies and procedures.[434] A fund would be required to abide by certain recordkeeping requirements relating to its swing pricing policies and procedures and any NAV adjustments made pursuant to these policies and procedures.[435]

In determining whether the fund's level of net purchases or net redemptions has exceeded the fund's swing threshold, the person(s) responsible for administering the fund's swing pricing policies and procedures [436] would be permitted to make such determination on the basis of information obtained after reasonable inquiry.[437] As discussed below, swing pricing requires the net cash flows for a fund to be known, or reasonably estimated, before determining whether to adjust the fund's NAV on a particular

future purchases or exchanges. Third, the fund must maintain a copy of each written agreement with a financial intermediary for six years.

[423] For example, adjusting a fund's NAV in order to effectively require shareholders who are purchasing or redeeming shares of the fund to bear the costs associated with their purchases or redemptions could be viewed as a temporary change in a fund's valuation policies that might conflict with long-standing Commission guidance that a fund's valuation policies be ''consistently applied.'' *See* Accounting for Investment Securities by Registered Investment Companies, Investment Company Act Release No. 6295 (Dec. 23, 1970) [35 FR 19986 (Dec. 31, 1970)] (''ASR 118'').

[424] *See* Rule 38a–1 Adopting Release, *supra* note 90, at text following n.40 (noting that the pricing requirements of the Investment Company Act are ''critical to ensuring fund shares are purchased and redeemed at fair prices and that shareholder interests are not diluted.'').

[425] *See* rule 2a–7.

[426] Proposed rule 22c–1(a)(3)(v)(A) would define ''exchange-traded fund'' as ''an open-end management investment company or a class thereof, the shares of which are traded on a national securities exchange, and that operates pursuant to an exemptive order granted by the Commission or in reliance on an exemptive rule adopted by the Commission.''

[427] Proposed rule 22c–1(a)(3). Under the proposed rule, ''swing pricing'' would be defined as ''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 [proposed rule 22c–1(a)(3)].'' *See* proposed rule 22c–1(a)(3)(v)(C).

[428] For purposes of this section III.F and the discussions of proposed rule 22c–1(a)(3) in this document, the term ''fund'' denotes a fund as defined in proposed rule 22c–1(a)(3), that is, ''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 [proposed rule 22c–1(a)(3)(v)(A)]).''

[429] Proposed rule 22c–1(a)(3)(ii)(A).

[430] Proposed rule 22c–1(a)(3)(i).

[431] Proposed rule 22c–1(a)(3)(i)(A). Under the proposed rule, ''swing factor'' would be defined as ''the amount, expressed as a percentage of the fund's net asset value and determined pursuant to the fund's swing pricing procedures, by which a fund adjusts its net asset value per share when the level of net purchases or net redemptions from the fund has exceeded the fund's swing threshold.'' Proposed rule 22c–1(a)(3)(v)(B). We request comment on this definition in section III.F.1.e below.

''Swing threshold'' would be defined as ''the amount of net purchases into or net redemptions from a fund, expressed as a percentage of the fund's net asset value, that triggers the initiation of swing pricing.'' Proposed rule 22c–1(a)(3)(v)(D). We request comment on this definition in section III.F.1.c below.

[432] Proposed rule 22c–1(a)(3)(i)(D).

[433] Proposed rule 22c–1(a)(3)(ii)(A).

[434] Proposed rule 22c–1(a)(3)(ii)(B).

[435] *See infra* section III.F.1.g; proposed rule 22c–1(a)(3)(iii); proposed amendment to rule 31a–2(a)(2).

[436] *See infra* section III.F.1.f.

[437] Proposed rule 22c–1(a)(3)(i)(A).

day.[438] Because the deadline by which a fund must strike its NAV may precede the time that a fund receives final information concerning daily net flows from the fund's transfer agent or principal underwriter, we believe it is appropriate to permit the person responsible for administering swing pricing policies and procedures to determine whether net purchases or net redemptions have exceeded the fund's swing threshold on the basis of information obtained after reasonable inquiry. The operational processes associated with swing pricing are discussed in more detail below at section III.F.2.a.

Under the proposed rule, in-kind purchases and in-kind redemptions would be excluded from the calculation of net purchases and net redemptions for purposes of determining whether a fund's net purchases or net redemptions exceed its swing threshold.[439] When a fund investor purchases or redeems shares of a fund in kind as opposed to in cash, this does not necessarily cause the fund to trade any of its portfolio assets. We therefore believe that the risk of dilution as a result of shareholder purchase and redemption activity is lower with respect to in-kind purchases and in-kind redemptions, and thus swing pricing would not be permitted unless a fund's net purchases or net redemptions that are made in cash (and not in kind) exceed the fund's swing threshold.

We are proposing rule 22c–1(a)(3) to provide funds with a tool to mitigate the potentially dilutive effects of shareholder purchase and redemption activity. Funds would be able to adopt swing pricing policies and procedures in their discretion (although, once these policies and procedures are adopted, a fund would be required to adjust its NAV when net purchases or net redemptions cross the swing threshold, unless the fund's board approves a change to the fund's swing threshold). When a fund that has adopted swing pricing experiences net purchases exceeding the swing threshold, it would adjust its NAV upward, which would effectively require purchasing shareholders to cover near-term costs associated with the fund investing in additional portfolio assets. Conversely, when a fund that has adopted swing pricing experiences net redemptions exceeding the swing threshold, it would adjust its NAV downward, which would effectively require redeeming shareholders to cover near-term costs associated with the fund selling portfolio assets. In both cases, swing pricing would result in the costs of trading portfolio assets (along with transaction fees and charges relating to these trades) being passed on to purchasing and redeeming shareholders.

As discussed above, some foreign funds currently use swing pricing, which suggests that these funds consider swing pricing to be a valuable and effective means of decreasing dilution. Indeed, one investment manager conducted a study of its funds whose prices swung over a one-year period (over fifty funds) and found that the performance of each of these funds would have been impaired, in some cases quite considerably, had the manager not implemented a swing pricing policy.[440] Likewise, ALFI has noted that studies have shown that ''[f]unds that apply swing pricing show superior performance over time compared to funds (with identical investment strategies and trading patterns) that do not employ anti-dilution measures,'' and that ''[s]wing pricing helps preserve investment returns as the value to long-term investors normally exceeds the value of the swing factor applied on entry to or exit from the fund.'' [441] We believe that the swing pricing policies contemplated by the proposed rule, which are similar to those used by some foreign funds, could mitigate dilution arising from shareholders' purchase and redemption activity.[442] As opposed to purchase and redemption fees or liquidity fees, which could also prevent fund dilution arising from purchase or redemption activity,[443] swing pricing would occur pursuant to the fund's own procedures and would not require coordination with the fund's service providers because the swing pricing adjustment would be factored into the process by which a fund strikes its NAV.[444] In addition to mitigating potential dilution arising from purchase and redemption activity, swing pricing also could help deter redemptions motivated by any first-mover advantage. That is, if remaining shareholders understood that redeeming shareholders would bear the estimated costs of their redemption activity, it would reduce their incentive to redeem quickly because there would be less risk that they would bear the costs of other shareholders' redemption activity.

In considering the swing pricing proposal, we considered proposing a rule that would permit ''dual pricing'' as opposed to swing pricing. We understand that certain foreign funds use dual pricing as an alternative means of mitigating potential dilution arising from shareholder transaction activity. A fund using dual pricing would not adjust the fund's NAV by a swing factor when it faces high levels of net purchases or net redemptions, but instead would quote two prices—one for incoming shareholders (reflecting the cost of buying portfolio securities at the ask price in the market), and one for outgoing shareholders (reflecting the proceeds the fund would receive from selling portfolio securities at the bid price in the market).[445] While we believe that dual pricing also could mitigate potential dilution, we believe that swing pricing is a preferable alternative because we believe it would be simpler to implement and for investors to understand. 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), and also would permit a fund to price its shares without adjustment unless the level of net purchases or net redemptions were to cross the fund's swing threshold.

We recognize that swing pricing may involve potential disadvantages to funds as well as potential advantages, and the provisions of proposed rule 22c–1(a)(3) are designed to maximize the relative

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[438] *See infra* section III.F.2.a.

[439] Proposed rule 22c–1(a)(3)(i)(A).

[440] *See* BlackRock Swing Pricing Paper, *supra* note 412.

[441] *See* Luxembourg Swing Pricing Survey, Reports & Guidelines, *supra* note 413, at 12. *But see infra* paragraph following note 447 (noting that swing pricing could increase the volatility of a fund's NAV in the short term, which could increase tracking error and could make a fund's performance deviate from the fund's benchmark during the period of volatility to a greater degree than if swing pricing had not been used).

[442] *See* Luxembourg Swing Pricing Survey, Reports & Guidelines, *supra* note 413, at 12. The Commission has previously recognized that costs arising from certain types of redemption activity (namely, short-term trading strategies, such as market timing) could dilute the value of long-term investors' shares. *See* Rule 22c–2 Adopting Release, *supra* note 421.

[443] As discussed above, the Commission has previously recognized that excessive trading of fund shares could dilute the value of long-term investors' shares, and in response to this, adopted rule 22c–2, which permits a fund to impose redemption fees, and requires fund boards to consider imposing redemption fees, under certain circumstances. *See supra* notes 421–422.

In addition, money market funds are permitted to use liquidity fees under rule 2a–7. *See* 2014 Money Market Fund Reform Adopting Release, *supra* note 85, at section III.A.5; *see also* discussion of money market fund liquidity fees in section III.F.1.b *infra.* Liquidity fees (including ''dilution levies'' used by certain UCITS) are also used in some foreign jurisdictions, as a distinct liquidity risk management tool separate from swing pricing. *See infra* notes 467–468 and accompanying text.

[444] *See supra* note 422 and accompanying and following text.

[445] *See, e.g., supra* note 423 for a discussion of different methods of valuing portfolio assets, as considered in ASR 118.

advantages and respond to potential concerns associated with swing pricing. While swing pricing protects against dilution at the fund level and could act as a deterrent against redemptions motivated by any first-mover advantage, the potential disadvantages of swing pricing (described in more detail below) include increased performance volatility and the fact that the precise impact of swing pricing on particular purchase and redemption requests would not be known in advance and thus may not be fully transparent to investors. Under proposed rule 22c–1(a)(3), swing pricing would be a voluntary tool for funds, and thus a fund would be able to weigh the potential advantages and disadvantages of swing pricing in relation to the fund's particular circumstances and risks, as well as the other tools the fund uses to manage risks relating to dilution and liquidity.

The swing pricing requirements in proposed rule 22c–1(a)(3) aim to minimize NAV volatility (and related tracking error) associated with swing pricing to the extent possible. Swing pricing could increase the volatility of a fund's NAV in the short term, because NAV adjustments would occur when the fund's net purchases or net redemptions pass the fund's swing threshold. Thus, the fund's NAV would show greater fluctuation than would be the case in the absence of swing pricing. This volatility might increase tracking error (*i.e.*, the difference in return based on the swung NAV compared to the fund's benchmark) during the period of NAV adjustment, and could make a fund's short-term performance deviate from the fund's benchmark to a greater degree than if swing pricing had not been used.[446] Volatility and tracking error related to swing pricing could, therefore, result in investors incorrectly perceiving the short-term relative performance of a fund. This could potentially cause market distortions if investors were to incorrectly rate the performance of funds that use swing pricing compared to funds that do not, and shifted their invested assets from funds that use swing pricing to funds that do not as a result of this perception. Volatility and tracking error related to swing pricing also may activate alerts in monitoring systems that follow fund performance, which could in turn trigger purchases or redemptions in automated fund advisory services whose algorithms are driven by fund performance. However, we believe that the use of partial swing pricing, described below, would significantly reduce the performance volatility potentially associated with swing pricing. In addition, swing pricing should have a minimal effect on longer-term performance volatility and longer-term tracking error. Taking these considerations into account, we do not believe that volatility would generally be a significant deterrent to funds using swing pricing. We do request comment below on the potential effects of swing pricing on funds' performance volatility and any potential market distortions that could result if some funds adopt swing pricing but other, similarly situated funds do not.

Proposed rule 22c–1(a)(3) envisions partial swing pricing (that is, a NAV adjustment would not be permitted unless net purchases or net redemptions exceed a threshold set by the fund and approved by the fund's board) and not full swing pricing (that is, a NAV adjustment *any time* the fund experiences net purchases or net redemptions). Some foreign funds employ full swing pricing,[447] and there are certain advantages to full swing pricing (*e.g.*, a fund using full swing pricing would not be required to determine an appropriate swing threshold).[448] However, we believe partial swing pricing would generally cause lower NAV volatility than full swing pricing. The use of partial swing pricing also recognizes that net purchases and net redemptions below a certain threshold might not require a fund to trade portfolio assets,[449] and therefore a NAV adjustment, and any associated NAV volatility, might not be appropriate if purchases and redemptions would not result in costs associated with asset purchases and sales.

We recognize that there are other trade-offs that a fund would have to consider in determining to implement swing pricing. For example, application of a swing factor would affect all purchasing and redeeming shareholders equally, regardless of whether the size of an individual shareholder's purchases or redemptions alone would create material trading costs for the fund. This could cause certain shareholders to experience benefits or costs, relative to the other shareholders in the fund, that otherwise would not exist. For example, an investor who purchases fund shares on a day when a fund adjusts its NAV downward would pay less to enter the fund than if the fund had not adjusted is NAV on that day. And, while a small investor's redemption requests would not likely create significant liquidity costs for the fund on its own, if this investor were to redeem on the same day that the fund's net redemptions cross the swing threshold, his or her redemption proceeds would be reduced by the NAV adjustment. These concerns, however, are partially mitigated by the fact that shareholders could be assured that the same threshold level of net purchase and net redemption activity (as approved by the fund's board) would consistently trigger the use of swing pricing, unless the fund's board and a majority of the fund's independent directors were to approve a change in the fund's swing threshold.[450] Furthermore, we believe that investors who purchase shares on a day that a fund adjusts its NAV downward would not create dilution for non-redeeming shareholders (even though the purchasing shareholders may be receiving a lower price than would be the case if the NAV was not adjusted downward). Under these circumstances, shareholders' purchase activity would provide liquidity to the fund, which could reduce the fund's liquidity costs and thereby could decrease the swing factor. This could potentially help redeeming shareholders to receive a more favorable redemption price than they otherwise would have if there had been less purchase activity on that day, but would not affect the interests of non-redeeming investors.

We believe that an adequate level of transparency about swing pricing is critical for investors to understand the risks associated with investing in a particular fund. As discussed in section III.G below, proposed disclosure and reporting requirements regarding swing pricing would assist shareholders in understanding whether a particular fund has implemented swing pricing policies and procedures and has used swing pricing. We are not, however, proposing to require a fund to publicly disclose its swing threshold, because of concerns that certain shareholders may attempt to time their transactions based on this information,[451] as well as

[446] *But see supra* notes 440–441 and accompanying text (noting that swing pricing has been found to benefit fund performance over the long term).

[447] *But see* Luxembourg Swing Pricing Survey, Reports & Guidelines, *supra* note 413, at 6 (of the respondents surveyed by ALFI, the majority employed a partial swing approach, with only a select few choosing the full swing method).

[448] *See* Luxembourg Swing Pricing Survey, Reports & Guidelines, *supra* note 413, at 17.

[449] For example, a fund may not need to sell portfolio assets to pay redemptions below a certain threshold if it maintains a certain percentage of its net assets in cash or cash equivalents.

[450] *See infra* section III.F.1.f.

[451] *See* Luxembourg Swing Pricing Survey, Reports & Guidelines, *supra* note 413, at 8 (of the respondents surveyed by ALFI, the majority of those that used swing pricing ''were reluctant to

concerns that disclosure could be confusing or potentially misleading insofar as it could give an inaccurate view of funds' relative risks and benefits. For example, a shareholder might assume that Fund X with a swing threshold of 5% is inherently more risky and thus a ''worse'' investment than Fund Y with a swing threshold of 7% because a lower level of net flows would cause Fund X to adjust its NAV than Fund Y. But the relative performance and risks of both funds could depend on additional considerations, even excluding differences in the various market, credit, liquidity, and other risks associated with the funds' portfolio assets. These considerations could include the swing factors the funds would use to adjust their NAV and the frequency with which each fund would encounter net purchases or net redemptions that cross the fund's swing threshold. Although funds would not be required to disclose their swing threshold, the use of partial swing pricing as opposed to full swing pricing could give shareholders comfort that, under circumstances in which the fund is experiencing relatively low purchases or redemptions, the fund's NAV will likely not be adjusted.

Request for Comment

We seek comment on the general swing pricing process as contemplated by proposed rule 22c–1(a)(3). We seek specific comment on the process a fund would use to determine and review its swing threshold and to calculate the swing factor it would use to adjust its NAV, and on the proposed approval and oversight requirements associated with swing pricing policies and procedures, below.

- Do commenters agree that swing pricing could be a useful tool for U.S. registered funds in mitigating potential dilution of fund shareholders? Do commenters believe that dilution arising from costs associated with certain purchases or redemptions of fund shares is a significant problem that funds currently face, have historically faced under certain market conditions, or might be expected to face in the future?
- Do commenters agree that the proposed rule should require a fund that adopts swing pricing policies and procedures to adjust the fund's NAV when the fund's level of net purchases *or* redemptions exceeds the fund's swing threshold? Or should the proposed rule instead only require a fund that adopts swing pricing policies and procedures to adjust the fund's NAV when the fund's level of net redemptions exceeds the swing threshold? Alternatively, should the proposed rule permit a fund to choose whether to adopt swing pricing policies and procedures that would: (i) Require the fund to adjust its NAV when the fund's level of net purchases or redemptions exceeds the fund's swing threshold; or (ii) require the fund to adjust its NAV only when the fund's level of net redemptions exceeds the fund's swing threshold? Are there greater concerns about the potential for dilution associated with net redemptions than those associated with net purchases?
- Should a fund be permitted to use full swing pricing, as opposed to the partial swing pricing contemplated by the proposed rule? Why or why not?
- Under the proposed rule, when net purchases or net redemptions of a fund that has adopted swing pricing policies and procedures exceed the fund's swing threshold, the price that *all* purchasing or redeeming shareholders would receive for fund shares would be adjusted pursuant to the fund's swing pricing policies and procedures. Should a fund instead be permitted to exempt certain shareholders (for example, purchasing shareholders on days when the fund's share price is adjusted downward, or small shareholders whose purchase or redemption activity would not likely create significant liquidity costs for the fund) from receiving an adjusted share price on a day when the fund's net purchases or redemptions exceed the swing threshold? Why or why not?
- Would the use of purchase fees, redemption fees and/or liquidity fees (either separately or in combination) be a more or less effective means of mitigating potential dilution than swing pricing? Why or why not? Would the use of purchase fees, redemption fees and/or liquidity fees (either separately or in combination) entail burdens and costs that are higher or lower than the burdens and costs associated with swing pricing? What types of operational challenges would arise with swing pricing as opposed to purchase fees, redemption fees, and liquidity fees? Are purchase fees, redemption fees, and liquidity fees feasible for those funds whose shares are primarily held through third-party intermediaries?
- Would the use of dual pricing be a more or less effective means of mitigating potential dilution than swing pricing? What types of operational challenges would arise with swing pricing vs. dual pricing?
- Would allowing funds to require certain investors to accept in-kind redemptions in certain circumstances be a more or less effective means of mitigation potential dilution than swing pricing in those circumstances?
- Do commenters agree that the swing pricing framework contemplated by proposed rule 22c–1(a)(3) responds as effectively as possible to the potential concerns associated with swing pricing? Specifically, we request comment on the extent to which the swing pricing requirements incorporated into the proposed rule would reduce volatility and respond to transparency-related concerns. Would any performance volatility that could result from swing pricing result in market distortions if some funds adopt swing pricing but other, similarly situated funds do not? Do commenters believe that the use of partial swing pricing, as opposed to full swing pricing, would mitigate concerns that the swing pricing would increase a fund's volatility? Do these proposed requirements also effectively respond to transparency-related concerns associated with swing pricing, and would the proposed disclosure requirements regarding swing pricing also respond to transparency concerns? Would any alternative or additional swing pricing requirements more effectively respond to potential concerns about volatility or transparency (or any other concerns) associated with swing pricing?
- As proposed, rule 22c–1(a)(3) would permit, but not require, a fund to adopt swing pricing policies and procedures. What process do commenters anticipate that a fund may use to weigh the potential advantages and disadvantages of swing pricing in relation to the fund's particular circumstances and risks? Should each fund's board be required to determine whether swing pricing is appropriate for each fund? Should all funds, or a particular subset of funds (*e.g.*, funds whose three-day liquid asset minimums are below a certain level, or whose less liquid assets are above a certain level) be required to use swing pricing? Do commenters expect funds would decide that swing pricing would be an effective anti-dilution tool, in spite of potential concerns about volatility or transparency (or any other potential concerns)?
- Proposed rule 22c–1(a)(3) would permit the person(s) responsible for administering a fund's swing pricing policies and procedures to make the

disclose the level of [swing] threshold they apply . . . [and some] commented that the act of disclosing these details was contradictory to the principle of investor protection and therefore avoided disclosing the threshold.'' ALFI noted that ''[o]n balance it appears that the majority of promoters prefer not to disclose thresholds to ensure clients do not actively manage trades below the trigger level of the partial swing.'').

determination of whether the fund's level of net purchases or redemptions has exceeded the fund's swing threshold ''on the basis of information obtained after reasonable inquiry.'' Do commenters agree that this would be appropriate? Why or why not? Is the phrase ''information obtained after reasonable inquiry'' clear? If not, how could this term be clarified within the context of the proposed rule?

• As proposed, rule 22c–1(a)(3) would require a fund to exclude any purchases or redemptions that are made in kind and not in cash when determining whether the fund's level of net purchases or net redemptions has exceeded the fund's swing threshold. Is this exclusion appropriate? Why or why not?

b. Scope of Proposed Rule

Proposed rule 22c–1(a)(3) would apply to all registered open-end management investment companies, with the exception of money market funds and ETFs.[452] While rule 22c–1(a) generally applies to all registered investment companies issuing redeemable securities,[453] we believe that only open-end mutual funds (and, as discussed below, not UITs or ETFs) are generally susceptible to the risk that shareholder redemption activity could dilute the value of outstanding shares held by existing shareholders. And as discussed below, we believe money market funds, while potentially susceptible to this risk, already have extensive tools at their disposal to mitigate potential shareholder dilution.

All investment companies that fall within the scope of proposed rule 22e–4, with the exception of ETFs, would be permitted to use swing pricing under proposed rule 22c–1(a)(3), and a fund may decide to adopt swing pricing policies and procedures as part of the liquidity risk management program it would be required to implement under proposed rule 22e–4. Under proposed rule 22c–1(a)(3), swing pricing would be voluntary for funds, and some fund complexes may decide to use swing pricing for certain funds within the complex but not others, or establish different swing thresholds for different funds within the complex.[454] As discussed above, funds would be required to exclude any purchases and redemptions that are made in kind, and not in cash, in determining whether the fund's level of net purchases or net redemptions has exceeded the fund's swing threshold.[455] This could functionally limit the ability of a fund that often permits in-kind purchases and in-kind redemptions to use swing pricing, or discourage such a fund from adopting swing pricing policies and procedures, because the fund's level of net purchases or net redemptions as calculated pursuant to proposed rule 22c–1(a)(3) may never (or rarely) reach the fund's swing threshold as determined pursuant to the proposed rule.

We are not proposing to include closed-end investment companies, UITs, ETFs or money market funds within the scope of proposed rule 22c–1(a)(3). Closed-end investment companies do not issue redeemable securities and therefore would not incur costs associated with shareholder purchase and redemption activity that would necessitate swing pricing. Similarly, where a UIT sponsor maintains a secondary market in units of a UIT series, we believe that the series is unlikely to ever need to use swing pricing. In addition, since UITs do not frequently trade their underlying securities, but instead maintain a relatively fixed portfolio, investor flows do not generally affect the portfolio, and thus purchases and sales of UIT shares would not likely produce dilutive effects to existing shareholders.[456]

Although we believe that ETFs could experience liquidity risk and thus have included them within the scope of proposed rule 22e–4,[457] we are proposing not to include ETFs within the scope of proposed rule 22c–1(a)(3) because we believe—as described more fully below—that ETFs' purchase and redemption practices do not generally entail the risk of dilution as a result of authorized participants' purchase and redemption activity, and that swing pricing could impede the effective functioning of an ETF's arbitrage mechanism. Unlike mutual funds, which typically internalize the costs associated with purchases and redemptions of shares, ETFs typically externalize these costs by charging a fixed and/or variable fee to authorized participants who purchase creation units from, and sell creation units to, an ETF. The fixed and/or variable fees are imposed to offset both transfer and other transaction costs that may be incurred by the ETF (or its service providers), 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 versus in cash and is related to the costs and expenses associated with transaction effected in kind versus in cash. When an authorized participant redeems ETF shares by selling a creation unit to the ETF, for example, the fees imposed by the ETF defray the costs of the liquidity that the redeeming authorized participant receives, which in turn mitigates the risk that dilution of non-redeeming authorized participants would result when an ETF redeems its shares.

In addition to our belief that ETFs' purchase and redemption practices would generally not entail the risk of dilution for existing shareholders, we are also not including ETFs within the scope of the proposed rule because we believe that swing pricing could impede the effective functioning of an ETF's arbitrage mechanism.[458] As discussed above, the effective functioning of the arbitrage mechanism is necessary in order for an ETF's shares to trade at a price that is at or close to the NAV of the ETF.[459] If an ETF were to adopt swing pricing policies and procedures, as conceptualized under the proposed rule, an authorized participant would not know whether the ETF's NAV would be adjusted by a swing factor on any given day and therefore may not be able to assess whether an arbitrage opportunity exists.[460] The Commission

[452] As discussed above, for purposes of the proposed amendments to rule 22c–1, ''exchange-traded fund'' includes an ETMF.

[453] Rule 2a–7 provides exemptions from rule 22c–1 for money market funds, to permit certain money market funds to use the amortized cost method and/or the penny-rounding method to calculate its NAV, and to permit a money market fund to impose liquidity fees and temporarily suspend redemptions. *See* rule 2a–7(c)(1)(i); rule 2a–7(c)(2).

[454] Outside the U.S., it is a common industry practice for funds within a fund complex each to have an individual swing threshold, or for some funds within a complex to use swing pricing while others do not. *See, e.g.,* BlackRock Swing Pricing Paper, *supra* note 412; J.P. Morgan Asset Management, *Swing pricing: The J.P. Morgan Asset Management Approach in the Luxembourg Domiciled SICAVs,* JPMorgan Funds and JPMorgan Investment Funds Insight (June 2014), *available at http://www.jpmorganassetmanagement.de/DE/dms/Swing%20Pricing%20%5bMKR%5d%20%5bIP_EN%5d.pdf* (''J.P. Morgan Asset Management Swing Pricing Paper'').

[455] *See supra* note 439 and accompanying paragraph.

[456] *See, e.g., supra* notes 136 and 141 and accompanying text.

[457] *See supra* section III.A.2.

[458] As discussed previously, ETMF market makers would not engage in the same arbitrage as ETF market makers because all trading prices of ETMF shares are linked to NAV. *See* supra note 32 and accompanying text. ETMFs would charge transaction fees that mitigate the risk of dilution, and therefore we do not propose to include ETMFs within the scope of proposed rule 22c–1(a)(3).

[459] *See, e.g., supra* note 14 and accompanying text.

[460] *See supra* note 451 and accompanying paragraph (noting that a fund would not be required to disclose its swing threshold under the proposed rule).

has historically considered the effective functioning of the arbitrage mechanism to be central to the principle that all shareholders be treated equitably when buying and selling their fund shares.[461] Therefore, we believe that the implementation of swing pricing by an ETF could raise concerns about the equitable treatment of shareholders, to the extent that swing pricing could impede the effective functioning of the arbitrage mechanism.

We are also not proposing to include money market funds within the scope of proposed rule 22c–1(a)(3). Money market funds are subject to extensive requirements concerning the liquidity of their portfolio assets. Also, a money market fund (other than a government fund) is permitted to impose a liquidity fee on redemptions if its weekly liquid assets fall below a certain threshold, and these fees serve a similar purpose as the NAV adjustments contemplated by swing pricing.[462] That is, money market fund liquidity fees allocate at least some of the costs of providing liquidity to redeeming rather than existing shareholders,[463] and also generate additional liquidity to meet redemption requests.[464] We therefore believe that money market funds already have liquidity risk management tools at their disposal that could accomplish comparable goals to the swing pricing that would be permitted under proposed rule 22c–1(a)(3).

We also believe that the liquidity fee regime permitted under rule 2a–7 is a more appropriate tool for money market funds to manage the allocation of liquidity costs than swing pricing. First, while funds would be able to adopt swing pricing policies and procedures at their discretion, rule 2a–7 requires a money market fund under certain circumstances to impose a 1% liquidity fee on each shareholder's redemption, unless the fund's board of directors (including a majority of its independent directors) determines that such fee is not in the best interests of the fund, or determines that a lower or higher fee (not to exceed 2%) is in the best interests of the fund.[465] Money market funds also have unique minimum liquid asset requirements, and we believe the use of liquidity fees is appropriately tied to those requirements. Finally, we anticipate that open-end funds that adopt swing pricing policies and procedures would be required under such procedures to adjust their NAV on a relatively regular basis (whenever the fund's net purchases or net redemptions exceed the fund's swing threshold). In contrast, money market fund investors (particularly, investors in stable-NAV money market funds) are particularly sensitive to price volatility,[466] and we anticipate liquidity fees will be used only in times of stress when money market funds' internal liquidity has been partially depleted. We note that some foreign jurisdictions have a similar conception of liquidity fees as a distinct tool separate from swing pricing. For example, in Europe, UCITS may use swing pricing and apply ''dilution levies.'' [467] While many UCITS use swing pricing as a matter of normal course, dilution levies may be considered a liquidity risk management tool that is used in connection with stressed conditions.[468]

Request for Comment

We seek comment on the scope of proposed rule 22c–1(a)(3).

• Do commenters agree that the proposed rule should apply to all registered open-end management investment companies except money market funds and open-end ETFs?

• Do commenters agree that the risk of investor dilution is low for closed-end investment companies and UITs, and thus closed-end investment companies and UITs should not be included within the scope of proposed rule 22c–1(a)(3)?

• Do commenters agree that the risk of investor dilution is low for ETFs, whether ETFs purchase and redeem in cash or in kind? Why or why not? Do commenters agree that swing pricing could adversely affect the effective functioning of an ETF's arbitrage mechanism? Why or why not? Regardless of these considerations, should ETFs be permitted to use swing pricing, and do commenters anticipate that ETFs would use swing pricing if the scope of proposed rule 22c–1(a)(3) were expanded to include ETFs?

• If the scope of the proposed rule were expanded to include ETFs, are there any swing pricing operational considerations specific to ETFs that we should address? For example, if an ETF were to adopt swing pricing, how should we address any shareholder fairness implications that could result if certain authorized participants were to transact in cash and others were to transact in kind on a day when the fund swings its NAV? Should ETFs be permitted to use swing pricing in addition to imposing transaction fees on authorized participants, or as an alternative to such fees? Should we address implications of the proposed rule on exemptive relief that has been granted to existing ETFs? Should we also consider the implications of the proposed rule on an ETF that operates as a share class of a fund that also offers mutual fund share classes, or on an ETF that operates as a feeder fund investing in a master fund alongside mutual fund feeder funds?

• We seek comment on how the utilization of swing pricing by an ETF could affect the capital markets, in particular, market-making in the ETF. If the scope of the rule were expanded to include ETFs, would market makers and other market participants that contribute to ETF market-making be less willing to do so if it were unclear when an ETF that has adopted swing pricing policies and procedures would adjust its NAV, and to what extent swing pricing would affect the ETF's end-of-day NAV?

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[461] *See, e.g.,* Spruce ETF Trust, et al., Investment Company Act Release No. 31301 (Oct. 21, 2014) [79 FR 63964 (Oct. 27, 2014)] (notice of application for exemptive relief) (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 for exemptive relief) (''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.'').

[462] *See* rule 2a–7(c)(2); *see also* 2014 Money Market Fund Reform Adopting Release, *supra* note 85, at section III.A.

[463] *See, e.g.,* 2014 Money Market Fund Reform Adopting Release, *supra* note 85, at n.139 and accompanying text.

[464] *See id.* at n.120.

[465] *See supra* note 462.

[466] For example, retail and government money market funds are permitted to maintain a stable NAV, reflecting in part our understanding that investors in these products have a low tolerance for NAV volatility. *See* 2014 Money Market Fund Reform Adopting Release, *supra* note 85, at section III.B.3.c. Investors in floating NAV money market funds also could be sensitive to principal volatility, as we recognized in adopting requirements that all money market funds disclose their daily net asset value (rounded to the fourth decimal place) on their Web sites, and as we discussed in the economic analysis of the 2014 Money Market Fund Reform Adopting Release. *See id.* at section III.E.9 and section III.K.

[467] *See, e.g.,* BlackRock Fund Structures Paper, *supra* note 30, at 6; *see also supra* note 422 and accompanying and following text (discussing redemption fees that are currently permitted under rule 22c–2 and noting that, while redemption fees could mitigate dilution arising from redemption activity, implementing a fee requires coordination with the fund's service providers, which could entail operational complexity).

[468] *See* BlackRock Fund Structures Paper, *supra* note 30, at 6.

• The proposed definition of ''exchange-traded fund'' in rule 22c–1 would include ETMFs. While no ETMF has been launched yet, if an ETMF were to begin operations pursuant to applicable exemptive relief, it would arrange for an independent third party to disseminate the intraday indicative value of the ETMF's shares, which an investor would use to estimate the number of shares to buy or sell based on the dollar amount in which the investor wants to transact.[469] To what extent would a NAV adjustment effected by swing pricing make an investor's estimate less accurate, given that such adjustment would not be reflected in the intraday indicative value of the ETMF's shares disseminated during the trading day?

• Do commenters agree that money market funds already have liquidity risk management tools at their disposal that could accomplish comparable goals to swing pricing, and that the liquidity fee regime permitted under rule 2a–7 is a more appropriate tool for money market funds to manage the allocation of liquidity costs than swing pricing? Would there be any reason to extend the scope of proposed rule 22c–1(a)(3) to floating NAV money market funds?

c. Determining the Fund's Swing Threshold

Under proposed rule 22c–1(a)(3), a fund's swing pricing policies and procedures must provide that the fund is required to adjust its NAV once the level of net purchases or net redemptions from the fund has exceeded a set, specified percentage of the fund's net asset value known as the ''swing threshold.'' [470] A fund would be required to adopt policies and procedures for determining its swing threshold,[471] and as discussed below, the swing threshold and any changes thereto must be approved by the fund's board of directors.[472] In specifying its swing threshold, a fund would be required to consider:

◦ The size, frequency, and volatility of historical net purchases or net redemptions of fund shares during normal and stressed periods;

◦ The fund's investment strategy and the liquidity of the fund's portfolio assets;

◦ The fund's holdings of cash and cash equivalents, as well as borrowing arrangements and other funding sources; and

◦ The costs associated with transactions in the markets in which the fund invests.[473]

In order to effectively mitigate possible dilution arising in connection with shareholder purchase and redemption activity, a fund's swing threshold should generally reflect the estimated point at which net purchases or net redemptions 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. As discussed below, we believe that a consideration of the factors set forth above would permit a fund to estimate this point. The liquidity or transaction costs associated with purchase or redemption activity can dilute the value of existing shareholders' interests in the fund, and the purpose of swing pricing is to lessen this potential dilution. Trading assets to meet purchase or redemption requests is not in and of itself an indication that a fund will incur material liquidity or transaction costs. For example, trading smaller levels of very liquid assets would likely not produce significant costs to the fund. However, trading portfolio assets to a significant degree, or trading relatively less liquid assets within a short time frame in order to invest proceeds from purchases or satisfy redemption requests, could generate material costs to the fund that could dilute the value of fund shares held by existing investors.

We believe that evaluating the factors that proposed rule 22c–1(a)(3) would require a fund to consider in specifying its swing threshold would assist a fund in determining what level of net purchases or net redemptions would generally lead to a trade of portfolio assets that would result in material costs to the fund. Assessing the size, frequency, and volatility of historical net purchases and net redemptions of fund shares would permit a fund to determine its typical levels of net purchases and net redemptions and the levels the fund could expect to encounter during periods of unusual market stress, as well as the frequency with which the fund could expect to see periods of unusually high purchases or redemptions. We believe that comparing the fund's historical flow patterns with the fund's investment strategy, the liquidity of the fund's portfolio holdings, the fund's holdings of cash and cash equivalents and borrowing arrangements and other funding sources, and the costs associated with transactions in the markets in which the fund invests would allow a fund to predict what levels of purchases and redemptions would result in material costs under a variety of scenarios.

The first three factors that proposed rule 22c–1(a)(3)(i)(B) would require a fund to consider in specifying the fund's swing threshold correspond with certain of the factors a fund would be required to consider in assessing its liquidity risk.[474] This is because evaluating a fund's liquidity risk, or the risk that the fund could not meet expected and reasonably foreseeable requests to redeem its shares without materially affecting the fund's NAV,[475] is a similar exercise to determining the fund's swing threshold (which, as discussed above, should generally reflect the estimated point at which net purchases or net redemptions would trigger the fund's investment manager 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). For this reason, we believe that the issues a fund would consider in assessing the extent to which the (i) size, frequency, and volatility of historical purchases and redemptions of fund shares during normal and stressed periods, (ii) the fund's investment strategy and portfolio liquidity, and (iii) the fund's holdings of cash and cash equivalents, borrowing arrangements and other funding sources would affect the fund's liquidity risk also are relevant when a fund determines its swing

[469] *See* ETMF Notice, *supra* note 15.

[470] Proposed rule 22c–1(a)(3)(i)(A). Under the proposed rule, ''swing threshold'' would be defined as ''the amount of net purchases into or net redemptions from a fund, expressed as a percentage of the fund's net asset value, that triggers the initiation of swing pricing.'' Proposed rule 22c–1(a)(3)(v)(D). We request comment on this definition at the end of this section III.F.1.c.

[471] Proposed rule 22c–1(a)(3)(i)(B).

[472] *See infra* section III.F.1.f.

[473] Proposed rule 22c–1(a)(3)(i)(B).

These factors overlap significantly with factors that we understand are commonly considered by funds that use swing pricing in other jurisdictions, in order to determine a fund's swing threshold. For example, the Luxembourg Swing Pricing Survey, Reports & Guidelines provides that factors influencing the determination of the swing threshold ordinarily include: (i) Fund size; (ii) type and liquidity of securities in which the fund invests; (iii) costs (and hence, the dilution impact) associated with the markets in which the fund invests; and (iv) investment manager's investment policy and the extent to which the fund can retain cash (or near cash) as opposed to always being fully invested). *See* Luxembourg Swing Pricing Survey, Reports & Guidelines, *supra* note 413, at 14.

[474] *See* proposed rule 22e–4(b)(2)(iii)(A)*(1)*, proposed rule 22e–4(b)(2)(iii)(B), proposed rule 22e–4(b)(2)(iii)(D) (requiring a fund to consider, in assessing its liquidity risk, the ''size, frequency, and volatility of historical purchases and redemptions of fund shares during normal and stressed periods,'' the fund's ''investment strategy and liquidity of portfolio assets,'' and the fund's ''holdings of cash and cash equivalents, as well as borrowing arrangements and other funding sources,'' respectively).

[475] *See* proposed rule 22e–4(a)(7).

threshold. These issues are discussed in detail above.[476]

In assessing the fourth factor, the costs associated with transactions in the markets in which the fund invests, a fund may wish to consider, as applicable, market impact costs[477] and spread costs[478] that the fund typically incurs when it trades its portfolio assets (or assets with comparable characteristics if data concerning a particular portfolio asset is not available to the fund). A fund also may wish to consider, as applicable, the transaction fees and charges that the fund typically is required to pay when it trades portfolio assets.[479] These could include brokerage commissions and custody fees, as well as other charges, fees, and taxes associated with portfolio asset purchases or sales (for example, transfer taxes and repatriation costs for certain foreign securities, or transaction fees associated with portfolio investments in other investment companies).

We understand that because proposed rule 22c–1(a)(3) does not specify a minimum ''floor'' for a fund's swing threshold, a fund could set a swing threshold representing a very low level of net purchases or net redemptions. This could result in the fund effectively practicing full swing pricing (that is, adjusting the fund's NAV whenever there is *any* level of net purchases or net redemptions) instead of partial swing pricing. However, we do not anticipate that a fund would generally wish to set a very low swing threshold, because we believe that a fund would not want to incur the increased NAV volatility associated with full (or nearly full) swing pricing. We also are not currently proposing a swing threshold floor because we believe that different levels of net purchases and net redemptions would create a risk of dilution for funds with different strategies, shareholder bases, and other liquidity-related characteristics, and thus it would be difficult to determine a swing threshold floor that would be appropriate across the scope of funds that would be permitted to use swing pricing.[480]

We recognize that requiring a fund to adopt a swing threshold could create the potential for shareholder gaming behavior because a fund's shareholders could attempt to time their purchases and redemptions based on the likelihood that a fund would or would not adjust its NAV. However, we do not think that potential gaming is a significant concern, because it would be difficult for shareholders to determine when the fund's net purchases or net redemptions cross the swing threshold. As discussed above, a fund would not be required to publicly disclose its swing threshold.[481] Also, funds are not required to disclose their daily net flows and do not usually do so.[482] For a shareholder to effectively ''game'' the swing pricing, it would have to know the daily flows on the day that shareholder was purchasing or redeeming and those flows would have to not materially change after the shareholder placed its order, all of which may be unlikely. Accordingly, even if a fund were to reveal its swing threshold, it may be difficult for shareholders to determine when the fund's net purchases or net redemptions exceed the swing threshold. We note that, to the extent a fund does decide to disclose its swing threshold, we believe it would not be appropriate for a fund to disclose it selectively to certain investors (*e.g.,* to only disclose the fund's swing threshold to institutional investors), as we believe this could assist certain groups of shareholders in strategically timing purchases and redemptions of fund shares, potentially disadvantaging shareholders who do not know the fund's swing threshold.[483]

Request for Comment

We request comment on the definition of ''swing threshold'' set forth in proposed rule 22c–1(a)(3) and the process a fund would use to determine its swing threshold.

• Is the definition of ''swing threshold,'' as set forth in proposed rule 22c–1(a)(3) appropriate and clear? If not, how could this definition be clarified or made more effective within the context of the proposed rule?

• Should a fund be permitted to adopt two swing thresholds—one for net redemptions and one for net purchases? Would this be more operationally difficult than adopting one swing threshold that would be used for net redemptions as well as net purchases, and if so, why?

• Should any of the proposed factors not be required to be considered by a fund in determining and reviewing its swing threshold? Should any be modified? Are there any additional factors, besides the proposed factors, that a fund should be required to consider? Should we set a minimum floor for a fund's swing threshold (*e.g.,* one percent, or some other percentage, of the fund's net asset value) to prevent a fund from setting a very low swing threshold? If so, what should it be and why?

• Do commenters agree that the swing threshold requirements under proposed rule 22c–1(a)(3) would not raise significant concerns regarding the potential for shareholder gaming behavior, because it would be difficult for shareholders to determine when the fund's net purchases or net redemptions cross the swing threshold? If commenters believe that the swing pricing framework contemplated by proposed rule 22c–1(a)(3) *would* raise significant concerns regarding the potential for shareholder gaming behavior, how could these concerns best be alleviated?

d. Periodic Review of a Fund's Swing Threshold

Proposed rule 22c–1(a)(3) would require a fund's swing pricing policies and procedures to include policies and procedures providing for the periodic review, no less frequently than annually, of the fund's swing threshold.[484] In conducting such review, a fund would be required to consider the factors included in proposed rule 22c–1(a)(3)(i)(B).[485] Any change to the fund's swing threshold, including those deemed appropriate as a result of this review would be deemed to be a material change to the fund's swing pricing policies and procedures that must be approved by the fund's

[476] *See supra* sections III.C.1.a, III.C.1.b, and III.C.1.d.

[477] *See supra* note 415.

[478] *See supra* note 416.

[479] A fund would be required to take transaction fees and charges into account when determining the swing factor that would be used to adjust the fund's NAV when the level of net purchases or net redemptions from the fund has exceeded the fund's swing threshold. Proposed rule 22c–1(a)(3)(i)(D)*(1). See infra* note 493 for a discussion of the proposed definition of ''transaction fees and charges.''

[480] We note that, in Europe, there are no across-the-board swing threshold floors applicable to UCITS that use swing pricing.

[481] *See supra* paragraph accompanying note 451.

[482] However, as proposed earlier this year, a fund would be required to disclose flow information on proposed Form N–PORT monthly, and information contained on reports for the last month of each fiscal quarter would be made public. *See infra* note 561.

[483] Like selective disclosure of fund portfolio holdings, we believe that selective disclosure of a fund's swing threshold could facilitate fraud and have adverse ramifications for a fund's investors if certain investors are given the opportunity to use this information to their advantage to the detriment of other investors. *See, e.g.,* Disclosure Regarding Market Timing and Selective Disclosure of Portfolio Holdings, Investment Company Act Release No. 26418 (Apr. 16, 2004) [69 FR 22300 (Apr. 23, 2004)] (discussing harm that could result from selective disclosure of fund portfolio holdings and adopting amendments to Form N–1A that would—among other things—require funds to disclose their policies and procedures with respect to the disclosure of their portfolio securities and any ongoing arrangements to make available information about their portfolio securities).

[484] Proposed rule 22c–1(a)(3)(i)(C).

[485] *Id.*

board.[486] Beyond specifying certain factors that a fund would be required to consider in reviewing its swing threshold, proposed rule 22c–1(a)(3) does not include prescribed review procedures, nor does it specify the required risk review period or incorporate specific developments that a fund should consider as part of its review. A fund may wish to adopt procedures specifying that the swing threshold will be reviewed more frequently than annually (*i.e.,* semi-annually or monthly), and/or specifying any circumstances that would prompt ad-hoc review of the fund's swing threshold in addition to the periodic review required by the proposed rule (as well as the process for conducting any ad-hoc reviews). Like a fund's liquidity risk review procedures, we believe that funds should generally consider procedures for evaluating market-wide, and fund-specific developments affecting each of the proposed rule 22c–1(a)(3)(i)(B) factors in developing comprehensive procedures for reviewing a fund's swing threshold.[487]

Request for Comment

We request comment on the process a fund would use to review its swing threshold.

- Are there certain procedures that we should require, and/or on which we should provide guidance, regarding a fund's periodic review of its swing threshold? Should we expand our guidance on the market-wide, and fund-specific developments that a fund's swing threshold review procedures should cover?
- Do commenters agree that a fund that adopts swing pricing policies and procedures should be required to review its swing threshold at least annually? Do commenters anticipate that a fund that adopts swing pricing procedures would voluntarily choose to review its swing threshold any more frequently than annually? Alternatively, should a fund be required to review its swing threshold any more or less frequently than annually?

e. Calculating the Swing Factor the Fund Will Use To Adjust Its NAV

Under proposed rule 22c–1(a)(3), a fund's swing pricing policies and procedures would be required to provide that the fund must adjust its NAV by an amount designated as the "swing factor" each time the fund's net purchases or net redemptions have exceeded the fund's swing threshold.[488] A fund's swing pricing policies and procedures would be required to specify how the swing factor to be used to adjust the fund's NAV will be determined.[489] As discussed in more detail below, the swing factor would be the amount, expressed as a percentage of the fund's net asset value, that takes into account any 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 to adjust the fund's NAV.[490] It also must take into account information about the value of assets purchased or sold by the fund to satisfy net purchases or net redemptions that occur on the day the swing factor is used to adjust the fund's NAV (if that information would not be reflected in the current NAV of the fund computed on that day).[491]

We anticipate that, because these considerations could vary depending on the facts and circumstances, the swing factor that a fund would determine appropriate to use in adjusting its NAV also could vary. We therefore believe that procedures for determining the swing factor generally should detail how each of the factors a fund would be required to consider under the proposed rule would assist the fund in calculating the swing factor. Below we provide examples of methods that a fund may wish to consider employing in calculating the swing factor.

We are proposing rule 22c–1(a)(3) to provide funds with a tool to mitigate the potentially dilutive effects of shareholder purchase and redemption activity, and the factors a fund would be required to consider in determining its swing factor are meant to enhance a fund's ability to estimate the costs associated with purchase and redemption activity that could dilute the value of the existing shareholders' interests in the fund. These costs include both market-related costs (that is, market impact costs and spread costs[492]) and transaction fees and charges associated with the fund trading portfolio assets.[493] The proposed swing factor determination requirement incorporates an assessment of multiple sources of potential dilution, in order to cause a fund to take all relevant considerations into account when making this determination.

Specifically, proposed rule 22c–1(a)(3)(i)(D)*(1)* would require a fund's policies and procedures for determining the swing factor to take into account any near-term costs that are expected to be incurred as a result of net purchases or net redemptions that occur on the day the swing factor is used to adjust the fund's NAV, including any market impact costs, spread costs, and transaction fees and charges arising from asset purchases or asset sales in connection with those purchases or redemptions, as well as any borrowing-related costs associated with satisfying those redemptions.[494] While a fund may be able to determine some of these costs with precision (*e.g.,* transaction fees and charges, and borrowing-related costs), we understand that other costs may only be able to be estimated by the fund, and the swing factor therefore would represent an estimate of the combined near-term costs associated with purchase or redemption activity. A fund may wish to consider certain of the factors it would evaluate for purposes of classifying the liquidity of its portfolio positions[495] in order to assess the costs associated with purchasing or selling portfolio assets. For example, a fund could use a portfolio asset's average daily trading volume[496] in determining the portion of a particular portfolio holding that it could sell each day without market impact. Likewise, a fund

[486] Proposed rule 22c–1(a)(3)(ii)(A) ("The fund's board of directors, including a majority of directors who are not interested persons of the fund, shall approve . . . any material change to the [fund's swing pricing] policies and procedures (including any change to the fund's swing threshold).").

[487] *See supra* section III.C.2.a.

[488] Proposed rule 22c–1(a)(3)(i)(A). Under the proposed rule, "swing factor" would be defined as "the amount, expressed as a percentage of the fund's net asset value and determined pursuant to the fund's swing pricing procedures, by which a fund adjusts its net asset value when the level of net purchases into or net redemptions from the fund has exceeded the fund's swing threshold." Proposed rule 22c–1(a)(3)(v)(B). We request comment on this definition at the end of this section III.F.1.e.

[489] Proposed rule 22c–1(a)(3)(i)(D).

[490] *Id.*

[491] *Id.*

[492] *See supra* notes 415–416.

[493] "Transaction fees and charges" would be defined in proposed rule 22c–1(a)(3) to mean "brokerage commissions, custody fees, and any other charges, fees, and taxes associated with portfolio asset purchases and sales." Proposed rule 22c–1(a)(3)(v)(E). We request comment on the proposed definition of this term at the end of this section III.F.1.e.

[494] The proposed costs that a fund would be required consider in determining its swing factor overlap significantly with costs that we understand funds that use swing pricing in other jurisdictions commonly consider when determining their swing factor. For example, the Luxembourg Swing Pricing Survey, Reports & Guidelines provides that the following should be considered when determining the swing factor: (i) The bid-offer spread of a fund's underlying portfolio assets, (ii) net broker commissions paid by the fund, (iii) custody transaction charges, (iv) fiscal charges (*e.g.,* stamp duty and sales tax), (v) any initial charges or exit fees applied to trades in underlying investment funds, and (vi) any swing factors or dilution amounts or spreads applied to underlying investment funds or derivative instruments. *See* Luxembourg Swing Pricing Survey, Reports & Guidelines, *supra* note 413, at 7, 15–16.

[495] *See supra* section III.B.2.

[496] *See* proposed rule 22e–4(b)(2)(ii)(B).

could refer to bid-ask spreads for a particular asset[497] to estimate the purchase price that the fund would pay for that asset. Indications of decreasing liquidity (for example, widening bid-ask spreads) would likely indicate increased market-related costs associated with certain portfolio assets. We anticipate that the particular transaction fees and charges that a fund would likely consider would include brokerage commissions and custody fees, as well as other charges, fees, and taxes associated with portfolio asset purchases or sales (for example, transfer taxes and repatriation costs for certain foreign securities, or transaction fees associated with portfolio investments in other investment companies). If a fund were to draw on a line of credit, or otherwise borrow money, in order to pay redemptions, this borrowing activity could result in costs to the fund that, like the costs associated with purchasing and selling portfolio assets, could dilute the value of the shares held by existing shareholders.[498] We are therefore proposing to require that a fund consider these costs, along with the costs associated with investing the proceeds from net purchases or assets sales to satisfy net redemptions, in determining the swing factor.

The proposed rule specifies that the determination of a fund's swing factor must take into account 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 to adjust the fund's NAV (emphasis added). The phrase ''near-term'' is meant to reflect that investing proceeds from net purchases or satisfying net redemptions could involve costs that may not be incurred by the fund for several days. For example, a fund could use cash to satisfy redemptions, which may result in minimal costs to the fund, but rebalancing the fund's portfolio to rebuild cash balances in the next several days could cause the fund to incur costs that would be borne by the existing shareholders. The rule text specifies that the costs to be considered are those that are expected to be incurred by the fund as a result of the net purchase or net redemption activity that occurred on the day the swing factor is used to adjust the fund's NAV; this specification is designed to help ensure that the costs to be taken into account are those that are directly related to the purchases or redemptions at issue. Thus, while the term ''near-term costs'' does not envision a precise number of days, we believe that, in context, this term would not likely encompass costs that are significantly removed in time from the purchases or redemptions at issue.

Under proposed rule 22c–1(a)(3)(i)(D)*(2)*, a fund's policies and procedures for determining the swing factor would be required to consider information about the value of assets purchased or sold by the fund as a result of the net purchases or net redemptions that occur on the day the swing factor is used to adjust the fund's NAV, if that information would not be reflected in the current NAV of the fund computed that day. This factor is meant to reflect the fact that a fund's NAV will generally not reflect changes in holdings of the fund's portfolio assets and changes in the number of the fund's outstanding shares until the first business day following the fund's receipt of the shareholder's purchase or redemption requests.[499] Thus, the price that a shareholder receives for his or her purchase or sale of fund shares customarily does not take into account market-related costs that arise when the fund trades portfolio assets in order to meet shareholder purchases or redemptions. But these costs could dilute the value of fund shares held by existing shareholders and thus should be considered in determining the fund's swing factor.

A fund could take a variety of approaches to determining its swing factor, in light of the fact that the relevant factors to be used in determining the swing factor could vary, as well as the likelihood that the persons administering the fund's swing pricing policies and procedures may (to the extent that net purchases or net redemptions cannot be ascertained or reasonably estimated until close to the time that the fund must strike its NAV) have limited time to determine the swing factor each day the fund's net purchases or net redemptions exceed the swing threshold. For example, a fund may wish to set a ''base'' swing factor, and adjust it as appropriate if certain aspects required to be considered in determining the swing factor deviate from a range of pre-determined norms (for example, if spread costs generally exceed a certain pre-determined level). Alternatively or additionally, we request comment below on the extent to which a fund that uses swing pricing may wish to incorporate into its policies and procedures a formula or algorithm that includes the factors required to be considered for determining the swing factor. We also understand that it may be difficult to determine certain costs (particularly, certain market impact costs and spread costs) with precision, while other factors that a fund would be required to consider in determining its swing factor may be able to be ascertained more exactly (for example, transaction fees and charges, borrowing-related costs, and the value of assets purchased or sold by the fund as a result of net purchases or net redemptions that occur on the day the swing factor is used to adjust the fund's NAV). For this reason, in establishing policies and procedures for determining the swing factor, a fund may wish to incorporate the use of reasonable estimates in these policies and procedures, to the extent the fund determines necessary or appropriate.[500]

We are not proposing to require an upper limit on the swing factor that a fund would be permitted to use, on account of the difficulty of establishing an appropriate across-the-board limit that would permit funds with different investment strategies, under all market conditions, to determine a swing factor that reflects the costs associated with the potential shareholder purchase or redemption activity. These 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 the dilution of existing shareholders. We believe that the lack of an upper limit on a fund's swing factor would not result in inappropriately high NAV adjustments, because the swing factor would be required to be determined with reference to the factors discussed above, and 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 interests of the fund.[501]

We do recognize that if we were to require an upper limit on the amount that a fund would be permitted to adjust its NAV, this could mitigate volatility, tracking error, and transparency concerns that could arise from the use of swing pricing.[502] A required swing factor limit would act as an upper bound on the extent to which a fund would be able to adjust its NAV and the NAV volatility resulting from this adjustment. Also, capping the swing factor that a fund would be permitted to use would provide transparency

[497] *See* proposed rule 22e–4(b)(2)(ii)(D).

[498] *See supra* section III.C.5.a.

[499] *See supra* note 412 and accompanying text.

[500] We understand that funds that use swing pricing in other jurisdictions may use reasonable estimates, such as those discussed in this paragraph, when determining their swing factor. *See, e.g.,* Luxembourg Swing Pricing Survey, Reports & Guidelines, *supra* note 413, at 15.

[501] *See infra* section III.F.1.f and note 517.

[502] *See supra* section III.F.1.a.

regarding the maximum amount that a shareholder could expect the share price that he or she receives upon purchase or redemption to be adjusted on account of swing pricing. However, as discussed above, we believe that the use of partial swing pricing could significantly reduce the performance volatility potentially associated with swing pricing,[503] and that proposed disclosure and reporting requirements regarding swing pricing will enhance transparency surrounding the use of swing pricing.[504]

Although we are not proposing to require an upper limit on the swing factor that a fund would be permitted to use, a fund would be permitted to adopt an upper limit on the swing factor it would apply, as part of the fund's swing pricing policies and procedures.[505] We understand that certain foreign domiciled funds that use swing pricing voluntarily limit the level of the swing factor to be applied, with such limits generally ranging from 1%–3%.[506] These funds usually disclose the swing factor upper limit in the fund's offering documents.[507] To the extent that a fund chooses to adopt a swing factor upper limit as part of its swing pricing policies and procedures, this limit would be required to be approved by the fund's board (as part of the fund's swing pricing policies and procedures, which are subject to board approval).[508] Likewise, a change to a fund's swing factor upper limit would be deemed to be a material change to the fund's swing pricing policies and procedures that would require board approval.[509] As fund directors have an obligation to act in the interests of the fund,[510] we expect that a fund board approving a swing factor upper limit would generally determine that capping the swing factor would not unduly limit the extent to which swing pricing could mitigate the potentially dilutive effects of shareholder purchase and redemption activity. Also, because the upper limit would affect the swing factor a fund would use to adjust its NAV when net purchases or net redemptions exceed the fund's swing threshold, the determination of the upper limit must take into account the same factors the fund would be required to consider in determining the swing factor.[511]

We request comment below on whether to require an upper limit on the swing factor that a fund would be permitted to use, and if so, the appropriate level of such limit. We also request comment on whether a fund should be permitted to adopt an upper limit on the swing factor it would apply, as part of the fund's swing pricing policies and procedures.

Request for Comment

We request comment on the definition of ''swing factor'' set forth in proposed rule 22c–1(a)(3) and the process a fund would use to calculate the swing factor that the fund would use to adjust its NAV.

- Is the definition of ''swing factor,'' as set forth in proposed rule 22c–1(a)(3) appropriate and clear? If not, how could this definition be clarified or made more effective within the context of the proposed rule?
- We request comment on each of the considerations that a fund would be required to take into account in determining the swing factor, pursuant to proposed rule 22c–1(a)(3)(i)(D). Would these considerations reflect the estimated or actual costs associated with purchasing or selling portfolio assets in order to meet purchases or redemptions of fund shares? Should any aspect of proposed rule 22c–1(a)(3)(i)(D) not be required to be considered by a fund in calculating the swing factor? Should any of the considerations be modified, and is the definition of ''transaction fees and charges,'' as set forth in the proposed rule, appropriate and clear? Instead of codifying certain considerations that a fund must take into account in determining the swing factor, should we instead provide guidance on factors a fund may wish to consider in calculating the swing factor? Instead of using a swing factor to adjust a fund's NAV, is there an alternate means by which a fund should be permitted to adjust its NAV to mitigate potential dilution stemming from purchase or redemption activity (*e.g.,* pricing its assets on the basis of bid prices, as opposed to pricing using the mean of bid and asked prices)?
- We request comment on the approaches commenters believe a fund may take to determine its swing factor. For example, do commenters anticipate that a fund would set a ''base'' swing factor, and adjust it as appropriate if certain elements required to be considered in the swing factor deviate from a range of pre-determined norms? Do commenters believe that it would be feasible and likely that a fund may wish to use a formula or algorithm approach for determining the swing factor? What other approaches to determining the swing factor do commenters anticipate that a fund would be likely to take?
- Do commenters agree that the Commission should not require an upper limit on the swing factor that a fund would be permitted to use? Why or why not? If not, what upper limit would be appropriate (*e.g.,* 2%, or some other limit), and why? Should we specify different limits for different types of funds or investment strategies?
- Do commenters agree that a fund should be permitted to adopt an upper limit on the swing factor it would apply, as part of the fund's swing pricing policies and procedures? Why or why not? To the extent that a fund does adopt an upper limit on the swing factor it would apply, should the fund be required to disclose this upper limit to shareholders? Should each fund that adopts swing pricing policies and procedures be required, not only permitted, to adopt an upper limit on the swing factor it would apply?

f. Approval and Oversight of Swing Pricing Policies and Procedures

Proposed rule 22c–1(a)(3)(ii)(A) would require a fund that has determined to engage in the use of swing pricing to obtain initial approval of its swing pricing policies and procedures (including the fund's swing threshold and any swing factor upper limit specified under the fund's swing pricing policies and procedures) from the fund's board, including a majority of independent directors. The proposed rule also would require a fund's board, including a majority of independent directors, to approve any material change to the fund's swing pricing policies and procedures (including any change to the fund's swing threshold, a change to any swing factor upper limit, or any decision to suspend or terminate the fund's swing pricing policies and procedures).[512] However, a fund's board would not be required to manage the administration of the fund's swing pricing policies and procedures. The proposed rule instead provides that a fund's board is required to designate the fund's investment adviser or officers responsible for administering the fund's swing pricing policies and procedures and determining the swing factor that would be used to adjust the fund's NAV when the fund's swing threshold is breached.[513] This proposed designation requirement tasks administration for the fund's swing pricing policies and procedures to persons who we believe would be in a better position to evaluate

[503] *See supra* notes 447–449 and accompanying text.

[504] *See supra* paragraph accompanying note 451.

[505] *See* proposed rule 22c–1(a)(3)(i)(D).

[506] Luxembourg Swing Pricing Survey, Reports & Guidelines, *supra* note 413, at 7.

[507] *Id.*

[508] *See infra* section III.F.1.f.

[509] *See id.;* proposed rule 22c–1(a)(3)(ii)(A).

[510] *See infra* note 517 and accompanying text.

[511] Proposed rule 22c–1(a)(3)(i)(D).

[512] Proposed rule 22c–1(a)(3)(ii)(A).

[513] Proposed rule 22c–1(a)(3)(ii)(B).

fund flows on a real-time basis than the fund's board.

The proposed oversight requirements for a fund's board and its independent directors reflect the historical role that a fund's board and independent directors have held with respect to issues involving valuation. A fund's board historically has held significant responsibility regarding valuation- and pricing-related matters,[514] as well as in approving valuation and compliance-related policies and procedures.[515] Additionally, in the past we have stated that a fund's compliance policies and procedures, which must be approved by the fund's board (including a majority of independent directors), should include procedures for the pricing of portfolio securities and fund shares.[516]

We believe that the proposed board and independent director approval requirements would help ensure that a fund establishes and implements swing pricing policies and procedures that are in the best interests of all the fund's shareholders. Because fund directors have an obligation to act in the interests of the fund,[517] a board approving swing pricing policies and procedures might do so under the premise that such policies and procedures would not unduly disadvantage any particular group of shareholders, and that any disadvantages that could affect certain shareholders would generally be outweighed by the benefits to the fund as a whole. Furthermore, the proposed approval requirements would serve to assure shareholders that the same level of net purchase or net redemption activity would consistently trigger the use of swing pricing, unless the fund's board and a majority of the fund's independent directors were to approve a change in the fund's swing threshold.

We believe that shareholders' interests would be best served by requiring the majority of a fund's independent directors, along with the fund's board, to approve the fund's swing pricing policies and procedures. As we have stated before, a fund's independent directors serve to guard investors' interests.[518] The decision to implement swing pricing, and determining the terms of swing pricing policies and procedures to be adopted by a fund, could occasionally produce conflicts for the fund and its adviser, and we believe that the proposed independent director approval requirement would help ensure that a fund's use of swing pricing would operate to the benefit of the fund's shareholders (even if this may not be in the best interest of the fund's adviser). For example, a fund's adviser could be reluctant to implement swing pricing to the extent it may make the fund's performance stray too far from, or appear more volatile than, the fund's benchmark, which could impact the ability of the fund to attract new investments. Approval of swing pricing policies and procedures by a majority of a fund's independent directors could make certain that the fund would use swing pricing in circumstances in which the board has determined swing pricing would serve shareholders' best interests, even if these interests may conflict with the adviser's.

While a fund's board would be required to approve the fund's swing pricing policies and procedures, the board would be required to designate the fund's adviser or officers responsible for the administration of these policies and procedures, including responsibility for determining a swing factor that would be used to adjust the fund's NAV when the fund's swing threshold is breached.[519] It is currently common industry practice for foreign domiciled funds that use swing pricing to appoint a committee to administer the fund's swing pricing operations.[520] A fund's board may wish to consider requiring the fund's swing pricing policies and procedures to be administered by a committee, and to specify the officers or functional areas that comprise the committee (taking into account any possible conflicts for the fund and the adviser related to swing pricing). The persons or committee tasked with swing pricing oversight may wish to meet periodically to determine the swing factor(s) the fund would use in a variety of circumstances, taking into account the factors and considerations discussed above in section III.F.1.e. A fund may wish to consider delineating the frequency with which these persons would meet in its policies and procedures; for example, a fund's policies and procedures might specify that these persons shall meet periodically, such as monthly or quarterly, or more frequently if market conditions require.[521] Because a fund may decide to adopt swing pricing policies and procedures as part of its liquidity risk management program, the fund's board may wish to provide that the persons (or functional areas) in charge of implementing these policies and procedures overlap with the persons (or functional areas) in charge of administering the liquidity risk management program.

Proposed rule 22c–1(a)(3) would require the determination of the swing factor to be reasonably segregated from the portfolio management function of the fund. For example, if a committee were tasked with determining the swing factor(s) the fund would use in a variety of circumstances, we believe it would be appropriate for the fund's portfolio manager to provide inputs to be used by that committee in determining the swing factor, but not to decide how those inputs would be employed in the swing factor determination. We believe that, in determining the swing factor, independence from portfolio management is important because the incentives of portfolio managers may not always be consistent with determining a swing factor that most effectively prevents dilution of existing

[514] *See, e.g.,* section 2(a)(41)(B) of the Investment Company Act and rule 2a–4 thereunder (when market quotations are not readily available for a fund's portfolio securities, the Investment Company Act requires the fund's board of directors to determine, in good faith, the fair value of the securities); rule 2a–7(c)(1)(i) and rule 2a–7(g)(1)(i)(A)–(C) (a stable NAV money market fund that qualifies as a retail or government money market fund may use the amortized cost method of valuation to compute the current share price provided, among other things, the board of directors believes that the amortized cost method of valuation fairly reflects the market-based NAV and does not believe that such valuation may result in material dilution or other unfair results to investors or existing shareholders).

[515] *See, e.g.,* ASR 118, *supra* note 423 (a board, consistent with its responsibility to determine the fair value of each issue of restricted securities in good faith, determines the method of valuing each issue of restricted securities in the company's portfolio and the actual valuation calculations may be made by persons acting pursuant to the board's direction; the board must continuously review the appropriateness of the method used in valuing each issue of security in the company's portfolio); Rule 38a–1 Adopting Release, *supra* note 90, at text accompanying n.46 (stating that rule 38a–1 requires fund directors to approve written compliance policies and procedures that require each fund to ''provide a methodology or methodologies by which the fund determines the fair value of the portfolio security'').

[516] *See* Rule 38a–1 Adopting Release, *supra* note 90, at nn.39–47 and accompanying text.

[517] *See, e.g.,* Role of Independent Directors of Investment Companies, Investment Company Act Release No. 24082 (Oct. 14, 1999) [64 FR 59826 (Nov. 3, 1999)] (discussing directors' duties of care and loyalty).

[518] *See id.*

[519] Proposed rule 22c–1(a)(3)(ii)(B).

[520] *See, e.g.,* BlackRock Swing Pricing Paper, *supra* note 412; J.P. Morgan Asset Management Swing Pricing Paper, *supra* note 454; Franklin Templeton Investments, Swing pricing: Investor protection against fund dilution, last visited Apr. 15, 2015, *available at http://www.franklintempleton.co.uk/downloadsServlet?docid=hjs17mth* (''Franklin Templeton Investments Swing Pricing Paper'').

[521] *See, e.g.,* BlackRock Swing Pricing Paper, *supra* note 412 (swing pricing committee meets at least monthly); J.P. Morgan Asset Management Swing Pricing Paper, *supra* note 454 (swing pricing committee meets at least quarterly); Franklin Templeton Investments Swing Pricing Paper, *supra* note 520 (swing pricing committee meets at least quarterly).

shareholders' interests in the fund. For example, a fund's portfolio manager could have an incentive to determine a swing factor that is as low as possible, because the portfolio manager could be reluctant for the fund's short-term performance to appear relatively poor compared to other funds and the fund's benchmark.[522]

A fund's board would not be required to approve each swing factor that would be used to adjust the fund's NAV when the fund's swing threshold is breached, although the board would be required to approve the policies and procedures for determining the swing threshold. This approval framework—along with the proposed segregation of the swing factor determination from the portfolio management function—is meant to strike a balance between ensuring appropriate board oversight over the policies and procedures for determining the swing factor, and independence with respect to the swing factor determination process, while recognizing that it may not be practicable for a fund's directors to be directly involved in the process of determining each swing factor. Because the persons administering the fund's swing pricing policies and procedures may have limited time to determine each swing factor to the extent that net purchases or net redemptions cannot be ascertained or reasonably estimated until close to the time that the fund must strike its NAV, we do not believe that it would generally be operationally feasible for a fund's board to approve each swing factor. Also, we do not believe that requiring a fund's board to approve each swing factor would be consistent with boards' historical oversight role.

Request for Comment

We seek comment on the proposed approval and oversight requirements associated with a fund's swing pricing policies and procedures.

- Do commenters agree that a fund's board, including a majority of the fund's independent directors, should be required to approve the fund's swing pricing policies and procedures (including the fund's swing threshold, and any swing factor upper limit specified under the fund's swing pricing policies and procedures), and any material changes thereto? Would these approval requirements ensure that a fund establishes and implements swing pricing policies and procedures that are in the interests of all of the fund's shareholders? Do commenters agree that the proposed independent director approval requirement would ensure that a fund's use of swing pricing benefits the fund's shareholders? Should the board be provided the option to not use swing pricing in a particular situation when swing pricing would have been warranted pursuant to a fund's swing pricing policies and procedures?
- Do commenters agree that it would be appropriate to require a fund's board to designate the fund's adviser or officers responsible for the administration of swing pricing policies and procedures, including responsibility for determining a swing factor that would be used to adjust the fund's NAV when the fund's swing threshold is breached? Do commenters agree that the determination of the swing factor should be reasonably segregated from the portfolio management of the fund? Would this pose any difficulty for particular types of entities, for example funds managed by small advisers? Is there a better way to prevent conflicts between the portfolio manager's incentives and the process of determining a swing factor that most effectively prevents dilution of existing shareholders' interests in the fund? What officers (or functional areas) of a fund do commenters anticipate a fund's board would select to administer the fund's swing pricing policies and procedures, and do commenters anticipate that these persons (or functional areas) would overlap with the administrators of a fund's liquidity risk management program?
- Do commenters agree that a fund's board should not be required to approve each swing factor that would be used to adjust the fund's NAV when the fund's swing threshold is breached, although the board would be required to approve the policies and procedures for determining the swing threshold? Why or why not?
- Should the Commission provide guidance as to the circumstances in which a possible misapplication of a firm's swing pricing policy could result in a material NAV error? For example, should the Commission explain whether an error would occur when the fund makes estimates under its swing pricing policy that is applied correctly, but the information, such as final shareholder flows, subsequently changes to a material degree? Should funds be required to have specific policies and procedures to address possible NAV errors?

g. Recordkeeping Requirements

Proposed rule 22c–1(a)(3) would require a fund to maintain a written copy of swing pricing policies and procedures adopted by the fund that are in effect, or at any time within the past six years were in effect, in an easily accessible place.[523] Additionally, we are proposing to expand current rule 31a–2(a)(2), which requires a fund to keep records evidencing and supporting each computation of the fund's NAV,[524] to reflect the NAV adjustments based on a fund's swing pricing policies and procedures. Specifically, a fund that adopts swing pricing policies and procedures would be required to preserve records evidencing and supporting each computation of an adjustment to the fund's NAV based on the fund's swing pricing policies and procedures.[525] For each NAV adjustment, such records should generally include, at a minimum, the fund's unswung NAV, the level of net purchases or net redemptions that the fund encountered (or 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. The records required under the proposed amendments to rule 31a–2(a)(2) would be required to be preserved for at least six years from the date that the NAV adjustment occurred, the first two years in an easily accessible place.[526] The proposed six-year period for a fund to maintain a copy of its swing pricing policies and procedures in proposed rule 22c–1(a)(3) corresponds with the six-year recordkeeping period currently incorporated in rule 31a–2(a)(2). We believe that consistency in these retention periods is appropriate in order to permit a fund or Commission staff to review historical instances of NAV adjustments effected pursuant to the fund's swing pricing policies and procedures in light of the policies and procedures that were actually in place at the time the NAV adjustments occurred.

These proposed recordkeeping requirements would help our examination staff to ascertain whether a fund that has adopted swing pricing policies and procedures has done so in compliance with the requirements of proposed rule 22c–1(a)(3). They also would help our staff to determine whether a fund is taking into account

[522] *See supra* note 446 and accompanying text; *infra* section III.F.2.b.

[523] Proposed rule 22c–1(a)(3)(iii).

[524] *See* rule 31a–2(a)(2) (every registered investment company shall . . . ''[p]reserve 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 schedules evidencing and supporting each computation of net asset value of the investment company shares'').

[525] *See* proposed amendment to rule 31a–2(a)(2).

[526] *See id.*

the factors required to be considered under proposed rule 22c–1(a)(3)(i)(D) in calculating the swing factor.

Request for Comment

We seek comment on the proposed recordkeeping requirements associated with a fund's swing pricing policies and procedures.

• Do commenters agree that the proposed recordkeeping requirements are appropriate? Are there any additional records associated with a fund's swing pricing policies and procedures that a fund should be required to keep? Should rule 31a–2(a)(2) be amended to specifically require a fund to keep records evidencing the fund's consideration of each of the factors required to be considered in determining each swing factor used to adjust the fund's NAV? Do commenters agree that the six-year record retention period in proposed rule 22c–1(a)(3) and the proposed amendments to rule 31a–2(a)(2) is appropriate?

2. Guidance on Operational Considerations Relating To Swing Pricing

a. Operational Processes Associated With Swing Pricing

Swing pricing requires the net cash flows for a fund to be known, or estimated using information obtained after reasonable inquiry,[527] before determining whether to adjust the fund's NAV on any particular day (and, if the fund's swing factor varies depending on its net flows, to determine the swing factor that the fund will use to adjust its NAV). A fund using swing pricing would need to monitor shareholder trades or flows of money in and out of the fund for purposes of determining whether the fund's net purchases or net redemptions would give rise to an NAV adjustment under its swing pricing policies and procedures.[528] Because the deadline by which a fund must strike its NAV may precede the time that a fund receives final information concerning daily net flows from the fund's transfer agent, a fund may wish to arrange for interim feeds of flows from its transfer agent or distributor in order to reasonably estimate its daily net flows for swing pricing purposes. A fund also may wish to implement formal or informal policies to encourage effective communication channels between the persons charged with implementing the fund's swing pricing policies and procedures, the fund's investment professionals, and personnel charged with day-to-day pricing responsibility (to the extent different persons comprise each of these groups).

In addition, there are unique operational considerations applicable to funds with multiple share classes. A fund with multiple share classes that uses swing pricing should consider the net purchase or net redemption activity of all share classes in determining whether its swing threshold has been breached.[529] Like a fund with only one share class, the purchase or redemption activity of certain shareholders (or a class of shareholders) within a multi-share-class fund could dilute the value of the existing shareholders' (or class of shareholders') interests in the fund.

b. Performance Reporting and Calculation of NAV-Based Performance Fees

For purposes of calculating the financial highlights and performance data to be included in a fund's prospectus and shareholder reports,[530] a fund using swing pricing should consider its NAV at the beginning and end of a reporting period, as well as its ''ending redeemable value'' on a particular day, to be its NAV as adjusted pursuant to its swing pricing policies and procedures (as applicable). Because a fund using swing pricing to adjust its NAV would, under certain circumstances, use the adjusted NAV as the price that shareholders receive for the purchase or redemption of shares, the adjusted NAV is the ''net asset value calculated on the last business day before the first day of each [performance] period'' and the ''price calculated on the last business day of each [performance] period,'' as referenced in the instructions to Item 13 (''Financial Highlights Information'') of Form N–1A. For the same reason, the adjusted NAV is the ''ending redeemable value'' of the fund's shares, as referenced in Item 26 (''Calculation of Performance Data'') of Form N–1A. Likewise, because rule 482 under the Securities Act references Form N–1A with respect to performance data,[531] a fund using swing pricing also should use its adjusted NAV when calculating the standardized performance data to be included in the fund's advertising materials.

If a fund using swing pricing pays NAV-based performance fees to its adviser,[532] the fund's NAV for purposes of calculating performance fees should be the NAV as adjusted pursuant to its swing pricing policies and procedures (as applicable). As discussed above, a fund's NAV used for performance reporting purposes would be the NAV as adjusted pursuant to swing pricing policies and procedures. We believe that the reported NAV and the NAV used for calculating performance fees (to the extent used) should be consistent in order to promote transparency regarding any performance fees paid to the fund's adviser, and to reflect the fact that the fund's performance likely has been affected by the transaction costs associated with shareholders' purchases and redemptions.

c. Fund Merger Considerations

When funds merge, and at least one of the merging funds uses swing pricing, there are a number of considerations relating to swing pricing that the funds generally should consider when determining the terms of the merger.[533]

[527] *See* proposed rule 22c–1(a)(3)(i)(A) (permitting the person(s) responsible for administering the fund's swing pricing policies and procedures to use ''information obtained after reasonable inquiry'' in determining whether the fund's level of net purchases or net redemptions has exceeded the fund's swing threshold).

[528] We have previously stated that a fund should adopt compliance policies and procedures that provide for monitoring shareholder trades or flows of money in and out of the fund for purposes of detecting market timing activity. *See* Rule 38a–1 Adopting Release, *supra* note 90, at nn.66–69 and accompanying text.

[529] *See* Luxembourg Swing Pricing Survey, Reports & Guidelines, *supra* note 413, at 21 (discussing swing pricing considerations relevant to funds with multiple share classes).

[530] *See* Items 13, 26 of Form N–1A.

[531] Rule 482(d), 17 CFR 230.482.

[532] Section 205(a)(1) of the Investment Advisers Act generally restricts an investment adviser from entering into, extending, renewing, or performing an investment advisory contract that provides for compensation to the adviser based on a share of capital gains on, or capital appreciation of, the funds of a client.

However, there are certain exemptions to this general restriction. *See* section 205(b)(2) of the Investment Advisers Act (providing that the section 205(a)(1) restriction does not apply to an investment adviser charging performance fees to a registered investment company if the fee is structured to comply with four requirements: (i) The fee is based on the investment company's NAV; (ii) the NAV is averaged over a ''specified period''; (iii) the fee increases or decreases proportionately with the investment company's ''investment performance'' over the specified period; and (iv) the investment company's investment performance relates to the ''investment record'' of an ''appropriate index'' of securities prices or another measure of investment performance as specified by the Commission by rule, regulation, or order); *see also* rule 205–3 under the Investment Advisers Act 17 CFR 275.205–3 (providing an exemption to the section 205(a)(1) restriction and permitting an investment adviser to charge performance fees if the adviser's client is a ''qualified client'' as defined in rule 205–3(d)(1) (generally, a client having at least $1 million under management with the adviser immediately after entering into an advisory contract with the adviser, or a client the adviser reasonably believed had a net worth of more than $2 million at the time the contract was entered into)).

[533] *See* Luxembourg Swing Pricing Survey, Reports & Guidelines, *supra* note 413, at 18–19 (discussing swing pricing considerations relevant to fund mergers).

The boards of merging funds should consider whether a swing factor should be used to adjust the value of the absorbed fund's assets, if the absorbing fund uses swing pricing and it is applied on the day of the merger.[534] Although the manager of the absorbing fund may need to sell certain of the assets of the absorbed fund following the merger (*e.g.,* for consistency with the absorbing fund's investment strategy, or to comply with certain regulatory requirements [535]), we do not believe that the NAV of either the absorbing fund or the absorbed fund should be adjusted to counter any dilution resulting from these sales, because costs associated with these sales would result from the merger and would not be caused by shareholders' purchase or redemption activity. In light of potential complications arising when funds using swing pricing merge, the boards of merging funds should consider whether to temporarily suspend a fund's swing pricing policies and procedures ahead of the merger.[536] Under proposed rule 22c–1(a)(3), such suspension would be considered a material change to the fund's swing pricing policies and procedures and thus could be accomplished only by vote of the fund's board, including a majority of the fund's independent directors.[537] In any event, the swing threshold of the absorbing fund should be reviewed following a merger. Likewise, the persons in charge of administering the absorbing fund's swing pricing policies and procedures should consider the effects of the merger when considering what swing factor would be appropriate to use if the fund's swing threshold is breached following the merger.

d. Request for Comment

We seek comment on the Commission's guidance discussed above regarding certain operational and accounting considerations relating to swing pricing. Do commenters generally agree with the Commission's guidance in this section III.F.2?

Along with this general request for comment on the Commission's guidance, we request specific comment on a number of individual guidance items.

- To what extent is it currently typical for a fund to receive interim feeds of flows from its transfer agent or distributor, and do these interim feeds generally permit a fund to reasonably estimate its net flows at the end of a business day? To what extent do financial intermediaries or other third parties provide interim feeds of flows?
- Should the Commission amend the proposed rule or provide guidance regarding pricing errors in the context of swing pricing? How do commenters anticipate that a fund using swing pricing may wish to update its pricing policies to provide clarity as to the application of swing pricing to the fund's policies concerning pricing errors? What policies do commenters anticipate that a fund's pricing policies could incorporate with respect to circumstances in which the fund's NAV was swung (or not swung) based on an estimate of net purchases or net redemptions that was later determined to be incorrect, but was based on information obtained after reasonable inquiry pursuant to proposed rule 22c–1(a)(3)(i)(A)?
- Do commenters agree that it is appropriate to require that a fund calculate performance fees based on the fund's NAV as adjusted pursuant to the fund's swing pricing policies and procedures (as applicable)? Why or why not? We specifically request comment on whether calculating a performance fee based on a fund's adjusted NAV could be viewed as inappropriately increasing or decreasing the fee (*e.g.,* depending on whether the NAV was adjusted at the beginning or end of a measurement period).
- Besides the issues discussed in this section, what specific operational challenges do funds anticipate associated with swing pricing? Do commenters anticipate there would be circumstances in which a fund's structure (*e.g.,* a fund with multiple share classes, as discussed in section III.F.2.a) would cause swing pricing to be particularly complex to implement?
- With respect to a fund with multiple share classes that uses swing pricing, do commenters agree that the fund should consider the net purchase or net redemption activity of all share classes in determining whether its swing threshold has been breached? Or should a fund instead be permitted to consider the net purchase or redemption activity of each share class separately (which potentially could lead to NAV adjustments for certain share classes and not others, or different NAV adjustments for each share class, on the same day)? If so, should we amend rule 18f–3 to expressly allow this? What operational or other difficulties could result from permitting a fund with multiple share classes that uses swing pricing to consider the net purchase or redemption activity of each share class separately, and to potentially make different NAV adjustments for each share class on the same day?
- Besides the issues discussed in this section, are there any other operational issues associated with swing pricing about which we should provide guidance?

3. Master-Feeder Funds

With respect to master-feeder funds, we believe the use of swing pricing would generally be appropriate only with respect to the level (or levels) of the fund structure that actually transact in underlying portfolio assets as a result of net purchase or redemption activity.[538] For example, if shareholders of a feeder fund were to redeem feeder fund shares, the feeder fund would redeem from the master fund (and not sell portfolio assets) in order to pay redeeming shareholders. Likewise, if investors were to purchase shares of a feeder fund, the feeder fund would invest in the master fund with cash received from the feeder fund purchasing shareholders, and the master fund would invest this cash in portfolio assets. Thus, a feeder fund would not be permitted to use swing pricing under the proposed rule.[539] The master fund, on the other hand, would potentially need to purchase portfolio assets in order to invest purchasing shareholders' cash (as transferred through the feeder fund), or sell portfolio assets in order to pay redemption proceeds in exchange for feeder fund shares. 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 the master fund) exceed the fund's swing threshold, the swing factor should thus be applied to the master fund's NAV.[540] In this example, because

[534] Directors overseeing fund mergers must take into account rule 17a–8 under the Investment Company Act (which sets forth requirements for mergers of affiliated investment companies), if applicable, as well as any relevant state law requirements. Rule 17a–8 requires a board, including a majority of the independent directors, to consider the relevant facts and circumstances with respect to a merger of affiliated funds and determine that the merger is in the best interests of each of the merging funds and that the interests of the shareholders of both the fund being acquired and the acquiring fund are not being diluted. We expect swing pricing considerations could be relevant to this determination.

See Luxembourg Swing Pricing Survey, Reports & Guidelines, *supra* note 413, at 18–19 (discussing issues associated with the use of swing pricing to adjust the value of the absorbed fund's assets).

[535] *See, e.g., supra* paragraph accompanying notes 296–298.

[536] *See supra* note 534.

[537] *See* proposed rule 22c–1(a)(3)(ii)(A).

[538] *See* Luxembourg Swing Pricing Survey, Reports & Guidelines, *supra* note 413, at 21–22 (discussing swing pricing considerations relevant to master-feeder fund structures).

[539] *See* proposed rule 22c–1(a)(3)(iv).

[540] Proposed rule 22c–1(a)(3) clarifies that, although feeder funds would not be permitted to use swing pricing, master funds would be permitted to do so. *See* proposed rule 22c–1(a)(3)(iv).

the feeder fund invests in the master fund, the master fund's adjusted NAV would indirectly affect the NAV of the feeder fund.

Request for Comment

We seek comment on the application of swing pricing to master-feeder funds. Do commenters generally agree that feeder funds should not be permitted to use swing pricing? Why or why not?

4. Financial Statement Disclosure Regarding Swing Pricing

The application of swing pricing would impact a fund's financial statements and disclosures in a number of areas, including a fund's statement of assets and liabilities, statement of changes in net assets, financial highlights and the notes to the financial statements. Currently, funds are required by Regulation S–X rule 6–04.19 [541] to state the NAV on the statement of assets and liabilities. Similar to ''ending redeemable value'' discussed in performance reporting in section III.F.2.b above, for purposes of reporting the NAV in a fund's statement of assets and liabilities, a fund using swing pricing should consider its ''purchase price'' or ''redemption price'' on a particular day to be its NAV as adjusted pursuant to its swing pricing policies and procedures. We believe that disclosure of this price is important, as it allows investors to understand the value they would receive had they purchased or redeemed shares on the financial reporting period end date. Different from redemption fees, which may be charged to specific shareholders based on the length of time that the shareholder has owned shares of the fund, all shareholders in a fund would receive the NAV as adjusted pursuant to its swing pricing policies and procedures. As all shareholders would receive the NAV as adjusted pursuant to the fund's swing pricing policies and procedures, we are proposing to amend Regulation S–X rule 6–04.19 to require funds to disclose the NAV as adjusted pursuant to its swing pricing policies and procedures (if applicable).[542]

Swing pricing also would impact disclosures of capital share transactions included in a fund's statement of changes in net assets. A fund using swing pricing to adjust its NAV would make payments for shares redeemed and receive payments for shares purchased net of the swing pricing adjustment. For example, if a fund had an unadjusted NAV of $10.00 on a given day and the adjusted NAV pursuant to the fund's swing pricing policies and procedures was $9.90, shareholders would transact at $9.90 multiplied by the number of shares purchased or redeemed. The $0.10 difference between the adjusted and unadjusted NAV would be retained by the fund to offset transaction and liquidity costs. This $0.10 difference per share should be accounted for as a capital transaction and not included as income to the fund, because it is designed to reflect the near-term transactional and liquidity costs incurred as a result of satisfying shareholder transactions. Funds are required by Regulation S–X rule 6–09.4(b) to disclose the number of shares and dollar amounts received for shares sold and paid for shares redeemed.[543] In this example, Regulation S–X would require the dollar amount disclosed to be based on the $9.90 per share that was actually used for shareholder transactions.

Consistent with presentation of the impact of swing pricing on the statement of changes in net assets and performance reporting described in section III.F.2.b, a fund should include the impact of swing pricing in its financial highlights.[544] The per share impact of amounts retained by the fund due to swing pricing should be included in the fund's disclosures of per share operating performance.[545] Accordingly, we are proposing to amend Item 13 of Form N–1A to specifically require the per share impact of amounts related to swing pricing to be disclosed below the total distributions line in a fund's financial highlights. In order to properly reconcile with the adjusted NAV reported on the statement of assets and liabilities, we also are proposing to clarify that ''Net Asset Value, Beginning of Period'' and ''Net Asset Value, End of Period'' are each the NAV as adjusted pursuant to the fund's swing pricing policies and procedures, if applicable.

Similarly, a fund's calculation of total return should use the NAV as adjusted pursuant to a fund's swing pricing policies and procedures as the redemption price calculated on the last business day of the period. We are proposing to amend Instructions 3(a) and 3(d) to Item 13 of Form N–1A to explicitly require funds to assume the NAV calculated on the last business day before the first day of each period and the price calculated on the last business day of each period shown should each be adjusted for the impact of swing pricing, if applicable. We believe that it is important for investors to understand the impact of swing pricing on the return that they would have received for the period presented in the fund's financial statements. We also are proposing to amend instructions to Item 26 regarding calculation of performance data to clarify that ''ending redeemable value'' should assume a value adjusted pursuant to swing pricing policies and procedures.

Finally, we are proposing to require funds that adopted swing pricing policies and procedures to state in a note to their financial statements the general methods used in determining whether the fund's net asset value per share will swing, whether the fund's net asset value per share has swung during the year, and a general description of the effects of swing pricing on the fund's financial statements.[546] We believe this information would be useful in further understanding the impact of swing pricing on a fund.

Request for Comment

We seek comment on the financial statement disclosure considerations relating to swing pricing. Do commenters generally agree with the Commission's guidance discussed above regarding financial statement disclosure, as well as the proposed amendments to Regulation S–X?

Along with this general request for comment, we request specific comment on a number of individual issues discussed above.

- Should the Commission allow a fund to disclose the total return calculation on an unadjusted NAV basis as a supplement to the total return calculation in the financial highlights table, and/or in a fund's advertising materials?
- Should the dollar amount of purchases and redemptions disclosed in a fund's financial statements be presented based on unadjusted NAV, with the dollar amount retained by the fund because of swing pricing separately disclosed? Alternatively, should the dollar amount of purchases and redemptions be presented as the actual value received by the fund or paid to shareholders, which would include the impact of swing pricing? Why or why not?

[541] *See* 17 CFR 210.6–04.19.

[542] *See* proposed amendments to 210.6–04.19. We also propose amending Regulation S–X rule 6–02 to add a definition of swing pricing. Swing pricing would be defined as having the meaning given in proposed rule 22c–1(a)(3)(v)(C). *See* proposed 210.6–02(g).

[543] *See* 17 CFR 210.6–09.4(b).

[544] *See* Item 13 of Form N–1A.

[545] ASC 946–205–50–7 requires specific per share information to be presented in the financial highlights for registered investment companies, including disclosure of the per share amount of purchase premiums, redemption fees, or other capital items.

[546] *See* proposed amendments to rule 6–03(n) of Regulation S–X.

• Should funds be required to disclose only the NAV as adjusted pursuant to a fund's swing pricing policies and procedures on the statement of assets and liabilities? Alternatively, should funds be required to disclose both unadjusted NAV and the NAV as adjusted pursuant to a fund's swing pricing policies and procedures on the statement of assets and liabilities?

• Should we require additional disclosures in notes to fund financial statements regarding swing pricing? If so, what additional information should be disclosed? Do commenters believe that any of the proposed disclosures should be modified? Are any of the proposed disclosures unnecessary? Why or why not?

• Do commenters have any accounting or auditing concerns in connection with swing pricing? If so, please describe specific concerns.

G. Disclosure and Reporting Requirements Regarding Liquidity Risk and Liquidity Risk Management

Investors receiving relevant information about the operations of a fund and the principal risks associated with an investment in a particular fund are important in facilitating investor choice regarding the appropriate investments 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. Accordingly, information about how redemptions will be made and when investors will receive payment is significant to investors. Currently, funds are not expressly required to disclose how they manage the liquidity of their assets, and therefore limited information is available regarding whether the liquidity of a fund's portfolio securities corresponds with its liquidity needs related to redemption obligations. In addition to the proposed amendments to Form N–1A and Regulation S–X discussed above regarding financial reporting related to swing pricing, we are proposing amendments to Form N–1A, Regulation S–X, proposed Form N–PORT and proposed Form N–CEN to improve the ability of investors, the Commission staff, and other potential users to analyze and better understand a fund's redemption practices, its management of liquidity risks, and how liquidity risk management can affect shareholder redemptions. We are also proposing amendments to Form N–1A regarding disclosure of swing pricing.

1. Proposed Amendments to Form N–1A

a. Redemption of Fund Shares

Form N–1A is used by funds to register under the Investment Company Act and to register offerings of their securities under the Securities Act. In particular, Form N–1A requires funds to describe their procedures for redeeming fund shares, including restrictions on redemptions and any redemption charges.[547] 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 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. Some funds disclose differences in the timing of payment of redemption proceeds based on the distribution channel through which the fund shares are redeemed, while others do not.

We believe that requiring consistency in disclosures and increasing the level of information provided among funds regarding the timing of payment after shareholder redemption of fund shares would give investors fuller information about their investments. Improvements are needed to enhance the ability of investors to evaluate and compare redemption policies across funds and to understand when a fund will actually pay redemption proceeds. Accordingly, we are proposing amendments to Item 11 of Form N–1A that would require a fund to disclose the number of days in which the fund will pay redemption proceeds to redeeming shareholders.[548] If the number of days in which the fund will pay redemption proceeds differs by distribution channel, the fund also would be required to disclose the number of days for each distribution channel.[549]

We also are proposing amendments to Item 11 of Form N–1A that would require a fund to disclose the methods that the fund uses to meet redemption requests.[550] Under this requirement funds would have to disclose whether they use the methods regularly to meet redemptions or only in stressed market conditions. Methods to meet redemption requests may include, for example, sales of portfolio assets, holdings of cash or cash equivalents, lines of credit, interfund lending, and ability to make in-kind redemptions. To address transaction costs associated with shareholder activity, funds also may use redemption fees.[551]

Currently, Item 11(c)(3) of Form N–1A requires funds to disclose whether they reserve the right to redeem their shares in kind instead of in cash.[552] We propose to incorporate this disclosure requirement into proposed 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.[553] 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.[554] A fund should consider whether adding relevant detail to its disclosure regarding in-kind redemptions, 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.

We are also proposing 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.[555] As previously mentioned, we understand based on staff outreach that it is relatively common for funds to establish lines of credit to manage liquidity risk and meet shareholder redemptions, typically during periods of significantly limited market liquidity.[556] We believe that requiring funds to include such agreements as exhibits to registration statements will 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. We also propose to include an instruction related to credit agreements noting that the specific fees paid in connection with the credit

[547] *See* Item 11(c) of Form N–1A.

[548] *See* proposed Item 11(c)(7) of Form N–1A.

[549] *Id.*

[550] *See* proposed Item 11(c)(8) of Form N–1A.

[551] Funds also may use swing pricing to address transaction costs associated with shareholder purchases or redemptions. We have proposed amendments to Form N–1A regarding disclosure of swing pricing. *See* proposed Item 6(d) of Form N–1A.

[552] *See* Item 11(c)(3) of Form N–1A.

[553] *See supra* section III.C.5.c.

[554] *Id.*

[555] *See* proposed Item 28(h) of Form N–1A.

[556] *See supra* section III.C.5.a.

agreements need not be disclosed in the exhibit filed with the Commission to preserve the confidentiality of this information.

Overall, we believe that requiring funds to provide additional disclosure concerning the methods they use and the funding sources they have to fulfill their redemption obligations and whether those methods are used on a regular basis or only in stressed market conditions would improve shareholder and market participant knowledge regarding fund redemption procedures and liquidity risk management. In particular, increased knowledge of how and when a fund's redemption procedures may affect whether, for example, a shareholder would receive cash or securities in kind or pay a redemption fee would be helpful for investors to better understand the impact of a fund's redemption procedures on shareholders.

b. Swing Pricing

Form N–1A currently requires a fund to describe its procedures for pricing fund shares, including an explanation that the price of fund shares is based on the fund's NAV and the method used to value fund shares.[557] If the fund is an ETF, an explanation that the price of fund shares is based on market price is required.[558] As discussed above, under proposed rule 22c–1(a)(3), a fund (with the exception of a money market fund or ETF) would be permitted, under certain circumstances, to use swing pricing to adjust its current NAV as an additional tool to lessen dilution of the value of outstanding redeemable securities through shareholder purchase and redemption activity.[559]

We are proposing to amend Item 6 of Form N–1A to account for this pricing procedure. Specifically, the proposed amendment would require a fund that uses swing pricing to explain the circumstances under which swing pricing would be required to be used as well as the effects of using swing pricing.[560] For a fund that invests in other funds (*e.g.,* fund-of-funds, master-feeder funds), the fund would be required to include a statement that its NAV is calculated based on the NAVs of the funds in which the fund invests, and that the prospectuses for those funds explain the circumstances under which those funds will use swing pricing and the effects of using swing pricing. We believe that these proposed disclosures would improve public understanding regarding a fund's use of swing pricing as well as the potential advantages and disadvantages of using swing pricing to manage dilution arising from shareholder purchase and redemption activity.

c. Request for Comment

We request comment on all aspects of the proposed amendments to Form N–1A.

• Would the proposed amendments regarding payment of redemption proceeds be helpful to fund shareholders? Should we modify the proposed disclosures, and if so, how?

• In addition to the proposed disclosure requirements, should Form N–1A be amended to require certain funds to incorporate enhanced disclosure regarding liquidity risk into their summary prospectuses? If so, what funds should be subject to such enhanced disclosure requirements (*e.g.,* funds with certain investment strategies, whose three-day liquid asset minimums are below a certain threshold, or that hold above a certain percentage of their portfolio (for instance, 5%, 10%, 20%, 30%) in assets with extremely limited liquidity, such as assets that can only be converted to cash in over 7 days, over 15 days, over 30 days, or over 90 days at a price that does not materially affect the value of that asset immediately prior to sale)? What specific liquidity risk disclosure requirements should apply to these funds?

• Are there any challenges associated with funds disclosing when they expect to pay redemption proceeds? Should funds be required to disclose the expected period in normal and stressed market conditions?

• Are there any challenges associated with funds disclosing the methods that they use to meet redemption requests and whether those methods are used regularly or only in stressed market conditions? Would disclosure of this information overly complicate prospectus disclosures?

• In cases where the number of days in which a fund will pay redemption proceeds differs by distribution channel, are there any challenges associated with funds disclosing the number of days for each distribution channel? Do funds pay all redemption proceeds at the same time irrespective of distribution channel (although when the shareholder actually receives redemption proceeds may differ by distribution channel)?

• Would the proposed amendments provide useful information to shareholders about how funds plan to satisfy redemption requests? Is there any additional information about fund redemption policies that shareholders should be aware of that is not discussed above? If so, would such additional information already be covered under existing Form N–1A requirements, or would we need to make any amendments to the form or its instructions?

• Would the proposed amendment to Item 28 of Form N–1A that would require a fund to file as exhibits to its registration statement any agreements related to lines of credit for the benefit of the fund be useful to fund shareholders and market participants? Why or why not? Are there any issues associated with funds filing such credit agreements? For example, even if specific fees paid in connection with the credit agreements are redacted, do funds have confidentiality concerns regarding filing such credit agreements? Should funds be required to file credit agreements if we adopt the proposed amendments to proposed Form N–CEN that require a fund to disclose information regarding lines of credit available to the fund?

• Would the proposed amendments to Form N–1A regarding swing pricing be useful to fund shareholders? Should funds be required to disclose additional information regarding swing pricing, and if so, what information should be disclosed?

2. Proposed Amendments to Proposed Form N–PORT

The Commission, investors, and other market participants currently have limited information about the liquidity of portfolio investments of funds, and we believe that all would benefit from more detailed reporting and disclosure of the liquidity of a fund's portfolio investments. On May 20, 2015, we proposed requiring registered management investment companies and ETFs organized as unit investment trusts, other than registered money market funds or small business investment companies, to electronically file with the Commission monthly portfolio investment information on proposed Form N–PORT.[561] As we discussed in the Investment Company Reporting Modernization Release, the information that would be filed on proposed Form N–PORT would enhance the Commission's ability to effectively oversee and monitor the activities of

[557] *See* Item 11(a)(1) of Form N–1A.

[558] *Id.*

[559] *See supra* section III.F.

[560] *See* proposed Item 6(d) of Form N–1A.

[561] Submissions on Form N–PORT would be required to be filed no later than 30 days after the close of each month. As proposed, only information reported for the third month of each fund's fiscal quarter on Form N–PORT would be publicly available, and such information would not be made public until 60 days after the end of the third month of the fund's fiscal quarter. *See* Investment Company Reporting Modernization Release, *supra* note 104.

investment companies in order to better carry out its regulatory functions. We also stated that we believe that many investors, particularly institutional investors, as well as academic researchers, financial analysts, and economic research firms, could use the information reported on proposed Form N–PORT to evaluate fund portfolios and assess the potential for returns and risks of a particular fund.[562]

We believe that requiring funds to report information about the liquidity of portfolio investments would assist the Commission in better assessing liquidity risk in the open-end fund industry, which can inform its policy and guidance, as well as in its monitoring for compliance with proposed rule 22e–4 and identifying potential outliers in fund liquidity classifications for further inquiry, as appropriate. Furthermore, we believe that this information would help investors and potential users better understand the liquidity risks in funds. Accordingly, the Commission seeks to enhance the reporting regarding the liquidity of fund holdings by proposing that each fund report on Form N–PORT the fund's three-day liquid asset minimum as well as the liquidity classification for each portfolio asset, as further described below.

a. Liquidity Classification of Portfolio Investments

Part C of proposed Form N–PORT would require a fund and its consolidated subsidiaries to disclose its schedule of investments and certain information about the fund's portfolio of investments. We propose to add Item C.13 to Part C of proposed Form N–PORT, which would require a fund to indicate the liquidity classification of each of the fund's positions in a portfolio asset. Funds would be required to indicate such liquidity classification using the following categories as specified in proposed rule 22e–4:

- Convertible to cash within 1 business day;
- Convertible to cash within 2–3 business days;
- Convertible to cash within 4–7 calendar days;
- Convertible to cash within 8–15 calendar days;
- Convertible to cash within 16–30 calendar days; and
- Convertible to cash in more than 30 calendar days.

For portfolio assets with multiple liquidity classifications, proposed Item C.13 would require funds to indicate the dollar amount attributable to each classification. For example, a fund could determine that it could convert half of a portfolio position to cash in 2–3 business days and the other half of the position in 4–7 calendar days in order to dispose of the position without creating a market impact and receive cash for the trade. In this case, half of the position would be reported in the 2–3 day category and the other half in the 4–7 day category.

We anticipate that the enhanced reporting proposed in these amendments would help our staff better monitor liquidity trends and various funds' liquidity risk profiles. We also believe that making this information available to the public quarterly, as with other information on proposed N–PORT, is appropriate. We received several comments to the Investment Company Reporting Modernization Release that addressed our proposal to require funds to identify on proposed Form N–PORT whether an investment is an illiquid asset. Specifically, several commenters noted concern that public dissemination of a fund's liquidity determinations could lead to misinterpretation and confusion among investors, particularly because of the subjective nature of such determinations.[563]

While we appreciate commenters' concerns and request further comment, we believe that the liquidity-related data reported on Form N–PORT that is made publicly available would inform investors and assist users in assessing funds' relative liquidity and the overall liquidity of the fund industry and of particular investment strategies and would not be confusing to investors.[564] For example, third-party data analyzers could use the reported information to produce useful metrics for investors about the relative liquidity of different funds with similar strategies. We also anticipate that this publicly available data would provide a resource for fund managers to compare the liquidity classifications assigned to various portfolio assets, which in turn could result in making the liquidity classifications assigned to certain positions more consistent across the fund industry, to the extent appropriate, and could provide greater market transparency as to the liquidity characteristics of certain assets.

We note that the liquidity classification of an asset may vary across funds depending on the facts and circumstances relating to the funds and their trading practices.[565] For example, one fund may hold a particular asset as a hedge against a risk in another portfolio asset. In this case, that asset's liquidity profile may be tied to the liquidity of the corresponding hedged asset. Another fund not using that asset as a hedge could report a quite different liquidity classification. Liquidity classifications also may vary based on the size of fund positions in a particular portfolio asset. We also recognize that liquidity classifications inherently involve some level of judgment by the fund and estimation as market conditions can change, and thus a fund may predict liquidity based on current information that it will take a certain time period to convert a particular asset to cash only to find that it takes longer to do so when the fund actually sells the asset. Nevertheless, for the reasons discussed above, we believe that the proposed reporting of liquidity classification information will provide very valuable information to us and market participants about current fund expectations regarding portfolio liquidity.

b. 15% Standard Assets

As currently proposed, Form N–PORT would require that each fund disclose whether each particular portfolio security is an ''illiquid asset.''[566] The proposed form defines illiquid assets in terms of current Commission guidelines (*i.e.,* assets that cannot be sold or disposed of by the fund within seven calendar days, at approximately the value ascribed to them by the fund).[567] In connection with proposed rule 22e–4's requirement regarding 15% standard assets,[568] we propose to amend the General Instructions to proposed Form N–PORT to remove the term ''Illiquid

[562] *See* Investment Company Reporting Modernization Release, *supra* note 104.

[563] *See, e.g.,* Comment Letter of Charles Schwab Investment Management on Investment Company Reporting Modernization Release (Aug. 11, 2015); Comment Letter of Invesco Advisers, Inc. on Investment Company Reporting Modernization Release (Aug. 11, 2015); Comment Letter of the Investment Company Institute on Investment Company Reporting Modernization Release (Aug. 11, 2015); Comment Letter of Pioneer Investments on Investment Company Reporting Modernization Release (Aug. 11, 2015).

[564] *See supra* note 561 regarding public disclosure of information submitted on Form N–PORT.

[565] *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.'').

[566] *See* Item C.7 of proposed Form N–PORT.

[567] *See* General Instruction E of proposed Form N–PORT.

[568] *See* proposed rule 22e–4(a)(4)*; see also supra* section III.C.4.a.

Asset'' from the definitions section and replace it with the term ''15% Standard Asset,'' as such term is defined in proposed rule 22e–4.[569]

This change would have the effect of requiring funds to report, for each portfolio asset, whether the asset is a 15% standard asset. This information would 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. This information also would help these groups in tracking the fund's exposure to liquidity risk.

c. Three-Day Liquid Asset Minimum

We propose to add an Item B.7 to Part B of proposed Form N–PORT to require each fund to disclose its ''three-day liquid asset minimum,'' as such term is defined in proposed rule 22e–4.[570] Requiring reporting of this information on Form N–PORT would allow our staff and other interested parties to easily assess the three-day liquid asset minimum across funds because of the interactive nature of how the information would be reported on proposed Form N–PORT.

This should facilitate comparisons between funds as well as the observation of trends over time in this indicator of fund liquidity.

d. Request for Comment

We seek comment on each of the Commission's proposed amendments to proposed Form N–PORT.

- Is there different or other information associated with liquidity that we should require funds to report on proposed Form N–PORT? If so, please describe the information.
- Would the proposed liquidity classification disclosure assist investors, fund boards, and other users in analyzing liquidity among portfolio assets within the fund and across the fund industry? What challenges, if any, may arise in reporting the liquidity classification information, and how could we address those challenges? What concerns are raised with public disclosure of liquidity classification information and how could we address those concerns?
- Should we require that the liquidity classification information on proposed Form N–PORT only be reported to the Commission and not be publicly disclosed? If so, how would we achieve our goal of allowing investors to become better informed, through information provided by third-party information providers or otherwise, about the liquidity of the funds in which they invest? Would public disclosure of liquidity classification information facilitate predatory trading practices or exacerbate first mover incentives? If so, how?
- Proposed Form N–PORT has a section in which a fund can provide explanatory notes with any information that it believes would be helpful in understanding the information reported on Form N–PORT.[571] Would this allow funds to explain any methodologies, assumptions, or estimations used in determining liquidity classifications?

3. Proposed Amendments to Proposed Form N–CEN

As proposed, all registered investment companies, including money market funds but excluding face amount certificate companies, would be required to file Form N–CEN annually.[572] Form N–CEN would require these registered investment companies to provide census-type information that would assist our efforts to modernize the reporting and disclosure of information by registered investment companies and enhance the staff's ability to carry out its regulatory functions, including risk monitoring and analysis of the industry.[573]

a. Lines of Credit, Interfund Lending, Interfund Borrowing and Swing Pricing

We are proposing to amend proposed 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 captured by proposed Form N–PORT. More specifically, we propose amending Part C of proposed Form N–CEN to add an item that would include certain questions regarding the use of lines of credit, interfund lending, interfund borrowing, and swing pricing.

The proposed amendments would add a new Item 44 to Part C of proposed Form N–CEN requiring a fund to disclose if it has available a committed line of credit, and, if so, 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.[574] If the line of credit is shared among multiple funds, the fund would be required to disclose the names and SEC File numbers of the other funds (including any series) that may use the line of credit.[575] If the fund responds affirmatively to having available a committed line of credit, the fund would be required to disclose whether it drew on the line of credit during the reporting period.[576] If the fund drew on that line of credit during the reporting period, Item 44 would require the fund 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.[577] This information would allow our staff and other potential users to assess how often and to what extent funds rely on certain external sources of liquidity, rather than relying on the liquidity of fund portfolio assets alone, for liquidity risk management. It also would allow monitoring of whether such lines of credit are concentrated in particular financial institutions.

Proposed Item 44 also would require a fund to 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.[578] This information would 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

[569] *See* Item C.7 of proposed Form N–PORT; revised General Instructions to proposed Form N–PORT.

The Investment Company Reporting Modernization Release also proposed amendments to Article 12 of Regulation S–X in which funds would be required to identify illiquid securities. *See, e.g.,* proposed rule 12–12, n. 10 of Regulation S–X (requiring funds to indicate ''by an appropriate symbol each issue of illiquid securities''). We propose to define ''illiquid securities'' in Regulation S–X (as well as ''illiquid investment,'' which term also appears in Regulation S–X) by reference to the term ''15% standard assets,'' as defined in proposed rule 22e–4(a)(4). *See* proposed 210.6–02(e), (f).

[570] *See* proposed rule 22e–4(a)(9); *see also supra* section III.C.3. We also propose adding the term ''Three-Day Liquid Asset Minimum'' to General Instruction E of proposed Form N–PORT, referencing the definition of such term in proposed rule 22e–4.

[571] *See* Part E of proposed Form N–PORT.

[572] *See* Investment Company Reporting Modernization Release, *supra* note 104.

[573] *Id.*

[574] *See* proposed Item 44(a)(i)–(iii) of Part C of proposed Form N–CEN.

[575] *See* proposed Item 44(a)(iii)(1) of Part C of proposed Form N–CEN. Under proposed 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 F to proposed Form N–CEN.

[576] *See* proposed Item 44(a)(iv) of Part C of proposed Form N–CEN.

[577] *See* proposed Item 44(a)(v) and (vi) of Part C of proposed Form N–CEN.

[578] *See* proposed Item 44(b) and (c) of Part C of proposed Form N–CEN.

lending and borrowing is to meet redemption obligations if necessary.

Finally, Item 44 would require a fund other than a money market fund to disclose whether it engaged in swing pricing during the reporting period. This disclosure would inform our staff and potential users about whether funds use swing pricing as a tool to mitigate dilution of the value of outstanding redeemable securities through shareholder purchase and redemption activity.[579]

b. Additional Information Concerning ETFs

Proposed Form N–CEN includes a section related specifically to ETFs.[580] Some of the proposed reporting requirements on Form N–CEN relate to an authorized participant's interaction with the ETF (or its service provider), as these entities play a significant role in the marketplace.[581] We believe collection of such information would allow us to better assess the size, capacity, and concentration of the authorized participant framework and may allow the Commission staff to monitor how ETF purchase and redemption activity is distributed across authorized participants and, for example, the extent to which a particular ETF—or ETFs as a group—may be reliant on one or more particular authorized participants.[582]

Specifically, we are proposing to add Item 60(g) [583] to Form N–CEN, which would require an ETF to report whether it required that an authorized participant post collateral to the ETF or any of its designated service providers in connection with the purchase or redemption of ETF shares during the reporting period.[584] We understand that some ETFs (or their custodians), particularly ETFs that invest in non-U.S. securities, require authorized participants transacting primarily on an in-kind basis to post collateral when purchasing or redeeming shares, most often for the duration of the settlement process. This can protect the ETF in the event, for example, that the authorized participant fails to deliver the basket securities.[585] The requirement to post collateral for creating or redeeming ETF shares impacts the authorized participant's operating capital, which could, in turn, affect the ability and willingness of authorized participants to serve such ETFs or serve other market makers on an agency basis. Accordingly, we believe that information about required posting of collateral by authorized participants when purchasing or redeeming shares—alongside the information we previously proposed to require in Form N–CEN—would be helpful in understanding whether, and to what extent, there may be concentration in the authorized participant framework for such ETFs.

c. Request for Comment

We seek comment on each of the Commission's proposed amendments to proposed Form N–CEN.

• Would the proposed reporting on the availability and use of lines of credit, interfund lending, interfund borrowing and the use of swing pricing assist investors, Commission staff, and market participants in assessing liquidity and liquidity risks within a fund and across the fund industry? Would this information be readily available to funds? If not, please explain why.

• Do the proposed questions collect all sources of liquidity outside the liquidity of fund portfolio assets? If not, what are these other sources?

• Is the annual reporting time period under Form N–CEN appropriate for this requested information? Should it be collected more frequently? If so, should we require funds to disclose any or all of the requested information on Form N–PORT instead of Form N–CEN?

• Is there different or other information associated with liquidity that we should require funds to report on proposed Form N–CEN? If so, please describe the information.

• Should funds be required to report information on uncommitted lines of credit? Please explain why or why not.

• What types of ETFs tend to require posting of collateral for purchases or redemptions and why? Please provide data on the size of such collateral deposits, and how this deposit requirement can affect an authorized participant's operating capital? How common is it for an authorized participant or market maker to contract with another authorized participant to post such collateral on its behalf? Are there situations where one authorized participant contracts with another authorized participant to purchase or redeem ETF shares on an agency basis rather than purchase or redeem the shares directly with the ETF because of the ETF's requirement that the purchase or redemption be collateralized for the duration of the settlement period?

H. Compliance Dates

1. Liquidity Risk Management Program

Proposed rule 22e–4 would require that each registered open-end management investment company, including open-end ETFs but not including money market funds, adopt and implement a written liquidity risk management program, approved by a fund's board of directors, that meets certain minimum requirements outlined in the rule. Given the nature of the liquidity risk management program, including the classification and ongoing review of the liquidity of each of a fund's positions in an asset (or portion thereof) required under proposed rule 22e–4(b)(2)(i) and the three-day liquid asset minimum determination required under proposed rule 22e–4(b)(2)(iv)(A), we expect to provide for a tiered set of compliance dates based on asset size for proposed rule 22e–4.

Specifically, for larger entities—namely, funds that together with other investment companies in the same ''group of related investment companies'' [586] have net assets of $1

[579] As part of the proposed revisions to proposed Form N–CEN, we propose renumbering previously proposed Items 44 through 79 to 45 through 80.

[580] *See* Part E of proposed Form N–CEN. We note that the reporting requirements of proposed Form N–CEN that are tailored for ETFs also apply to UITs organized as ETFs, as well as exchange-traded managed funds. *See* General Instruction A to proposed Form N–CEN. The additional proposed reporting requirement discussed below would apply to the same group of entities.

[581] Specifically, proposed Form N–CEN would require an ETF to provide identifying information about each of its authorized participants, as well as the dollar value of the ETF's shares that each authorized participant purchased or redeemed from the ETF during the reporting period. *See* proposed Item 60(g) of proposed Form N–CEN.

[582] *See* Investment Company Reporting Modernization Release, *supra* note 104, at section II.E.4.

[583] In the Reporting Modernization Release, information requirements related to authorized participants for ETFs were in Item 59 of Proposed Form N–CEN; however, because this release proposes to add additional items to proposed Form N–CEN, Item 59 of proposed Form N–CEN would be renumbered to Item 60. *See infra* Text of Rules and Forms.

[584] Proposed Item 60(g) of proposed Form N–CEN.

[585] *See, e.g.,* Investment Company Institute, *The Role and Activities of Authorized Participants of Exchange-Traded Funds,* (Mar. 2015), *available at https://www.ici.org/pdf/ppr_15_aps_etfs.pdf.* In addition to ETFs that invest in non-U.S. securities, Commission staff understands that there are other ETFs that have collateral requirements for purchases and redemptions, such as ETFs that invest in debt securities.

[586] For these purposes, we expect that the threshold would be based on the definition of ''group of related investment companies,'' as such term is defined in rule 0–10 under the Investment Company Act. Rule 0–10 defines the term in part as ''two or more management companies (including series thereof) that: (i) Hold themselves out to investors as related companies for purposes of investment and investor services; and (ii) Either: (A) Have a common investment adviser or have investment advisers that are affiliated persons of each other; or (B) Have a common administrator. . . .'' We believe that this broad definition would encompass most types of fund complexes and therefore is an appropriate definition for compliance date purposes.

billion or more as of the end of the most recent fiscal year—we are proposing a compliance date of 18 months after the effective date to comply with proposed rule 22e–4. For these larger entities, we expect that 18 months would provide an adequate period of time for funds to prepare internal processes, policies and procedures and implement liquidity risk management programs that meet the requirements of the 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),[587] we are proposing to provide for an extra 12 months (or 30 months after the effective date) to comply with proposed rule 22e–4.[588] We believe that smaller entities would benefit from this extra time to establish and implement the requirements outlined in the rule.

On or before the applicable compliance date(s), a fund must have adopted and implemented compliance policies and procedures that satisfy the requirements of the new rule. These policies and procedures must have been approved by the board on or before the applicable compliance date(s).

2. Swing Pricing

Proposed rule 22c–1(a)(3), if adopted, would permit (but not require) a fund (with the exception of a money market fund or ETF) to adopt swing pricing policies and procedures. Related proposed amendments to rule 31a–2 (regarding the preservation of books and records evidencing and supporting adjustments to NAV based on swing pricing policies and procedures), Item 13 of Form N–1A and Regulation S–X (regarding financial reporting), and Item 11(c) of Form N–1A (regarding a fund's use of swing pricing) would apply only to funds that elect to use swing pricing. As reliance on rule 22c–1(a)(3) would be optional, we believe a compliance period would not be necessary. Therefore, we expect that a fund would be able to rely on the rule after the effective date as soon as the fund could comply with proposed rule 22c–1(a)(3) and related records, financial reporting and prospectus disclosure requirements.

3. Amendments to Form N–1A

Except with respect to the proposed amendments to Form N–1A related to swing pricing (discussed above), if the other proposed amendments to Form N–1A are adopted, we expect 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. We do not expect that funds would require significant amounts of time to prepare additional disclosures in accordance with our proposed amendments regarding redemptions.

4. Amendments to Form N–PORT

Similar to the tiered compliance dates for the liquidity classification requirements for fund liquidity risk management programs under proposed rule 22e–4 (discussed above), we expect to provide for a tiered set of compliance dates based on asset size for the proposed amendments to proposed Form N–PORT. Specifically, for larger entities we are proposing a compliance date of 18 months after the effective date to comply with the new reporting requirements. For these larger entities, we expect 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. For smaller entities, we are proposing to provide for an extra 12 months (or 30 months after the effective date) to comply with the new reporting requirements. We believe that smaller groups would benefit from this extra time to comply with the filing requirements for Form N–PORT and would potentially benefit from the lessons learned by larger investment companies and groups of investment companies during the adoption period for Form N–PORT.

5. Amendments to Form N–CEN

If Form N–CEN and the amendments we propose to the form are adopted, we are proposing a compliance date of 18 months after the effective date to comply with the new reporting requirements.[589] We expect 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.

6. Request for Comment

We request comment on the compliance dates discussed above.

- How, if at all, should the proposed compliance dates be modified? What factors should we consider when setting the compliance dates for the proposed rule and amendments to the rules and forms? To the extent that a fund would decide to reallocate certain portions of its portfolio in order to correlate its portfolio holdings with its three-day liquid asset minimum, would the proposed compliance dates provide adequate time to do so in a way that would cause the fund to incur relatively few portfolio reallocation-related costs (*i.e.,* by permitting sufficient time to purchase and sell portfolio assets when it is relatively advantageous to do so)?
- We request comment on our proposed 18-month compliance date for proposed rule 22e–4. Is our 18-month compliance period appropriate? If not, what length of time (*e.g.,* 12 months or 24 months) would be appropriate for compliance with the new rule?
- We also request comment on our proposed tiered compliance dates for proposed rule 22e–4 and related reporting requirements under our proposed amendments to proposed Form N–PORT. Is a threshold of $1 billion based on the net assets of funds together with other investment companies in the same ''group of related investment companies'' as of the end of the most recent fiscal year appropriate? Should the threshold be higher or lower?[590] Should the threshold include aggregation of net assets with other investment companies in the same ''group of related investment companies?'' Why or why not? Is our

[587] Based on staff analysis of data obtained from Morningstar Direct, as of June 30, 2015, we estimate that a $1 billion threshold would provide an extended compliance period to approximately 66% of the fund groups, but only 0.6% of all fund assets. We therefore believe that the $1 billion threshold would appropriately balance the need to provide smaller groups of investment companies with more time to prepare internal processes, policies and procedures and implement liquidity risk management programs that meet the requirements of proposed rule 22e–4, while still including the vast majority of fund assets in the initial compliance period.

[588] *See* proposed rule 22e–4(b)(2)(i), (ii) and (iv)(A)–(C).

[589] Unlike Form N–PORT, we do not expect to provide a tiered compliance date based on asset size because we believe that it is less likely that smaller fund complexes would need additional time to comply with the amendments we propose on Form N–CEN. This 18-month compliance period is consistent with the compliance period for proposed Form N–CEN. *See* Investment Company Reporting Modernization Release, *supra* note 104.

[590] Based on staff analysis of data obtained from Morningstar Direct, as of June 30, 2015, we estimate that a threshold of $100 million would include approximately 38% of fund firms and 0.1% of all fund assets. A threshold of $3 billion would include approximately 77% of fund firms and 1.6% of fund assets.

12-month extension of the compliance period for smaller entities appropriate? If not, what length of time (*e.g.,* 6 months or 18 months) would be adequate and why?

• With respect to our proposed amendments to Form N–PORT, is our compliance date of 18 months for larger filers appropriate? If not, what length of time would be appropriate for compliance with the proposed amendments? Would a shorter or longer compliance date be appropriate? Is our 12-month extension of the compliance period for smaller entities appropriate? If not, what length of time would be appropriate for compliance with the additional reporting requirements under the proposed amendments?

• Is our 18-month compliance period for our proposed amendments to Form N–CEN appropriate? If not, what length of time would be appropriate? Would a shorter or longer compliance date be appropriate?

• We are proposing to not have a compliance period for proposed amendments to rule 22c–1 regarding swing pricing policies procedures and related amendments to rule 31a–2, Form N–1A and Regulation S–X. Is this appropriate?

• Is our six-month compliance period for our proposed amendments to Form N–1A disclosure requirements regarding the redemption of fund shares adequate? If not, what length of time would be adequate and why?

IV. Economic Analysis

A. Introduction and Primary Goals of Proposed Regulation

The Commission is sensitive to the economic effects that could result from the proposed liquidity risk management program requirement, the ability for funds to use swing pricing under proposed rule 22c–1(a)(3), and the proposed new disclosure and reporting requirements regarding liquidity risk and liquidity risk management (such proposed rule and proposed amendments to certain rules and forms, the ''proposed liquidity regulations''). These economic effects include the benefits and costs of the proposed liquidity regulations, as well as the effects on efficiency, competition, and capital formation. The economic effects of the proposed liquidity regulations are discussed below in the context of the primary goals of the proposed regulation.

In summary, and as discussed in greater detail in section III above, the proposed liquidity regulations include the following:

◦ Proposed new rule 22e–4 would require that each fund establish a written liquidity risk management program. A fund's liquidity risk management program would be required to include the following elements: (i) Classification and ongoing review of the classification of the liquidity of each of the fund's positions in a portfolio asset (or portions of a position in a particular asset), taking into account certain specified factors; (ii) assessment and periodic review of its liquidity risk; and (iii) management of the fund's liquidity risk, including limitations on the fund's acquisition of less liquid assets or 15% standard assets in certain circumstances.

◦ Under proposed rule 22c–1(a)(3), a fund (except a money market fund or ETF) would be permitted (but not required) to establish and implement swing pricing policies and procedures that would, under certain circumstances, require the fund to use swing pricing to adjust its current NAV to lessen potential dilution of the value of outstanding redeemable securities caused by shareholder purchase and redemption activity. A fund that engages in swing pricing would be subject to certain disclosure and reporting requirements.

◦ Proposed amendments to Form N–1A, Regulation S–X, proposed Form N–PORT, and proposed Form N–CEN would require enhanced fund disclosure and reporting regarding position liquidity, shareholder redemption practices, and swing pricing.

The proposed liquidity regulations are designed 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 in accordance with, among other provisions, section 22(e) and rule 22c–1 under the Investment Company Act. The proposed liquidity regulations also seek to enhance disclosure regarding fund liquidity and redemption practices. In addition, these proposed reforms are intended to address the liquidity-related developments in the open-end fund industry discussed above and are a part of a broader set of initiatives to address the impact of open-end fund investment activities on financial markets and the risks associated with the increasingly complex portfolio composition and operations of the asset management industry. We provide an overview of these rulemaking goals in the following paragraphs, and the goals are discussed in more detail below as we describe the prospective benefits and costs of each aspect of the proposal.[591]

A primary goal of the proposed liquidity regulations is to promote investor protection by reducing the risk that funds will be unable to meet their redemption obligations, elevating the overall quality of liquidity risk management across the fund industry, increasing transparency of funds' liquidity risks and risk management practices, and mitigating potential dilution of existing 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.[592] Additionally, funds today are only subject to limited disclosure requirements concerning a fund's liquidity risk and risk management.[593] Staff outreach has shown that funds today engage in a variety of different practices—ranging from comprehensive and rigorous to minimal and basic—for classifying the liquidity of their portfolio assets, assessing and managing liquidity risk, and disclosing information about their liquidity risk, redemption practices, and liquidity risk management practices to investors.[594] We believe that the proposed enhanced requirements for funds' assessment, management, and disclosure of liquidity risk could decrease the chance that funds would be unable to meet their redemption obligations and mitigate potential dilution of non-redeeming shareholders' interests.

The proposed 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 the 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.[595] However, sales of a fund's portfolio assets conducted in order to meet shareholder redemptions could result in significant adverse consequences to non-redeeming

[591] *See infra* sections IV.C.1, IV.C.2, and IV.C.3.

[592] *See supra* section II.D; *infra* section IV.B.1.a.

[593] *See supra* section II.D; *infra* section IV.B.1.c.

[594] *See supra* section II.D; *infra* sections IV.B.1.a, IV.B.1.c.

[595] *See supra* section II.B.2; *infra* sections IV.C.1, IV.C.2.

shareholders when a fund fails to adequately manage liquidity. For example, if a fund sells portfolio assets under unfavorable circumstances, this could create negative price pressure on those assets and decrease the value of any of those assets still held by the fund.[596] Funds also may borrow from a bank or use interfund lending facilities to meet redemption requests, but there are costs associated with such borrowings. Both selling of portfolio assets and borrowing to meet redemption requests could cause funds to incur costs that would be borne at least partially by non-redeeming shareholders.[597] These factors could result in dilution in the value of non-redeeming shareholders' interests in a fund,[598] and also could create incentives for early redemptions in times of liquidity stress, which could result in further dilution of non-redeeming shareholders' interests.[599] 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 assets at discounted or even fire sale prices can produce significant negative price pressure on those assets and correlated assets, which can impact other investors holding these assets and may transmit stress to other funds or portions of the markets.[600] For reasons discussed in detail below, we believe that the liquidity risk management program requirement and the ability for a fund to adopt swing pricing policies and procedures would mitigate the risk of potential shareholder dilution and decrease the incentive for early redemption in times of liquidity stress.

Finally, the proposed 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 assets, such as fixed income funds (including emerging market debt funds), open-end funds with alternative strategies, and emerging market equity funds.[601] 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.[602] 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).[603] But while fund redemption periods have become shorter, certain 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.[604] 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 proposed liquidity regulations would 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 effects of the proposed liquidity regulations on all of these parties are analyzed in detail below in the discussion of the costs and benefits of the proposed regulations. The economic baseline of the proposed liquidity regulations includes funds' current practices regarding liquidity risk management, swing pricing, 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, Swing Pricing, and Liquidity Risk Disclosure

a. Funds' Current Liquidity Risk Management Requirements and Practices

Under section 22(e) of the Investment Company Act, an open-end fund is required to make payment to shareholders for securities tendered for redemption within seven days of their tender.[605] In addition to the seven-day redemption requirement in section 22(e), open-end funds 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 security trades effected by a broker or a dealer. 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 assets 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 invest in a minimum level of liquid assets.[606] 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).[607] 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 fund's redemption obligations.[608] Open-end funds also are 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, and such policies and procedures should be appropriately tailored to reflect each fund's particular compliance risks.[609] An open-end fund

[596] *See supra* notes 46–48 and accompanying text.

[597] *See supra* notes 49–53 and accompanying text.

[598] *See supra* notes 46–48 and accompanying text; *infra* sections IV.C.1, IV.C.2.

[599] *See supra* notes 49–53 and accompanying text; *infra* sections IV.C.1, IV.C.2.

[600] *See supra* note 54 and accompanying text.

[601] *See supra* section II.C.1; *infra* section IV.B.3; *see also* DERA Study, *supra* note 39, at pp. 6–9.

[602] *See infra* section IV.B.3.

[603] *See supra* notes 73–77 and accompanying text.

[604] *See supra* notes 78–79 and accompanying text.

[605] *See* section 22(e) of the Investment Company Act. Section 22(e) of the Act provides, in part, that no open-end fund 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.

[606] *See supra* note 85 and accompanying text.

[607] *See* Restricted Securities Release, *supra* note 86.

[608] *See supra* note 87 and accompanying text.

[609] *See* Rule 38a–1 Adopting Release, *supra* note 90.

holding a significant portion of its assets in securities with long settlement periods or with infrequent trading, for instance, may be subject to relatively greater liquidity risks than other open-end funds, and should have relatively more robust policies and procedures to comply with its redemption obligations.

Additionally, long-standing Commission guidelines generally limit an open-end fund's aggregate holdings of ''illiquid assets'' to 15% of the fund's net assets (the ''15% guideline'').[610] 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.[611] 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.

Staff outreach has shown that funds currently employ a diversity of practices with respect to classifying portfolio assets' 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 assets within various time periods, taking into account relevant market, trading, and other factors; monitoring initial liquidity determinations for portfolio assets (and modifying these determinations, as appropriate); holding certain amounts of the fund's portfolio in highly liquid assets 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 assets to cover possible levels of redemptions.[612] We have 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 their liquidity needs, and that their liquidity risk management permits them to efficiently meet redemption requests. Other funds, however, employ liquidity classification and liquidity risk management practices that are substantially less rigorous. As discussed above in section II.D.3, some funds do not take different market conditions into account when evaluating portfolio asset 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 classifying the liquidity of their portfolio securities, as well as the comprehensiveness and independence of their liquidity risk management, vary significantly.

b. Funds' Current Swing Pricing Practices

Commission rules and guidance do not currently address the ability of an open-end fund to use swing pricing to mitigate potential dilution of fund shareholders, and U.S. registered funds do not currently use swing pricing. However, as discussed above, certain foreign funds currently do use swing pricing.[613] We understand that some fund complexes that include U.S. registered funds also include foreign-domiciled funds that currently use swing pricing.

c. 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.[614] 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.[615] Some funds currently disclose that liquidity risk is a principal risk of investing in the fund.

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.[616] 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 distribution channel through which the fund shares are redeemed, while others do not.

Funds are not currently required to disclose information about the liquidity of their portfolio assets. However, Form N–PORT, as proposed earlier this year, would require that each fund disclose whether each particular portfolio security is an ''illiquid asset'' and defines illiquid assets in terms of current Commission guidelines (*i.e.,* assets that cannot be sold or disposed of by the fund within seven calendar days, at approximately the value ascribed to them by the fund).[617] Also, some funds voluntarily disclose in their registration statements any specific limitations applicable to the fund's investment in 15% guideline assets, as well as 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.[618]

2. Economic Trends Regarding Funds' Liquidity and Liquidity Risk Management

a. Overview

While the liquidity of a fund's portfolio assets, and the fund's overall liquidity risk, depend on a variety of factors and are unique to the particular circumstances facing the fund,[619] analysis by staff economists has revealed trends that are useful for

[610] *See supra* note 92 and accompanying text.

[611] *See supra* note 93 and accompanying text.

[612] *See also e.g.,* Nuveen FSOC Notice Comment Letter, *supra* note 45 (discussing stress tests of a fund's ability to meet redemptions over certain periods); BlackRock FSOC Notice Comment Letter, *supra* note 50 (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* note 35, at 11 (discussing liquidity analysis).

[613] *See supra* notes 417–420 and accompanying text.

[614] Item 4(b)(1)(i) and Item 9(c) of Form N–1A.

[615] *Id.*

[616] Item 11(c) of Form N–1A.

[617] *See* General Instruction E of proposed Form N–PORT.

[618] *See* Regulation S–X 210.5–02.19(b); 210.4–08(k).

[619] *See supra* section III.B.2 (discussing factors relevant to an assessment of the liquidity of a fund's portfolio assets); *supra* section III.C.1 (discussing factors relevant to an assessment of a fund's liquidity risk).

providing an overview of the liquidity of funds exhibiting certain characteristics.[620] These trends are useful in estimating the relative level of liquidity of certain types of funds, and have thus helped to shape the scope and substance of the proposed liquidity regulations and to estimate the benefits and costs of the proposed liquidity regulations, as discussed below. Staff economists have also analyzed how fund portfolios change in response to decreases in market liquidity and large net outflows. These trends may be useful in examining how redemption requests could give rise to investor protection and potential market impact concerns.

b. Trends in the Relationship Between Liquidity of Portfolio Assets, Market Capitalization of Portfolio Assets, and Fund Assets

Staff economists have examined how the liquidity of U.S. equity funds' portfolios is influenced by both the market capitalization of a fund's portfolio assets, as well as the size of the fund in terms of assets. As described in more detail below, among U.S. equity funds, the average liquidity of a fund's equity positions is correlated with the market capitalization of a fund's portfolio assets, as well as the level of the fund's assets.[621] The staff's analysis with respect to these trends is, at this point, limited to an analysis of U.S. equity funds, on account of limitations in the availability of current data with respect to the holdings of funds that are not U.S. equity funds.[622] To the extent that Form N–PORT is adopted, we anticipate that the fund portfolio data filed on this form would significantly assist the staff in conducting similar liquidity-related analyses in the future.[623]

Fund liquidity tends to be highest for large cap U.S. equity funds and lowest for small cap U.S. equity funds.[624] As a U.S. equity fund's assets increase, fund liquidity also tends to increase. Among U.S. equity funds with less than $100 million in assets, the median price impact of ten million dollars in trading volume on the average portfolio asset is about 69 basis points; among U.S. equity funds with greater than $1 billion in assets, the same amount of trading volume has a median price impact of about 46 basis points.[625]

To the extent that a fund invests in portfolio assets that are relatively less liquid, the fund may experience greater liquidity risk than a fund that invests in portfolio assets that are highly liquid. Based in part on our empirical analysis, we have decided not to propose any modification of or exclusion from the proposed liquidity requirements for smaller funds, since smaller funds tend to demonstrate relatively high flow volatility (and thus possibly greater liquidity risk).[626] Also, based in part on staff analysis finding that different types of funds within the same broad investment strategy demonstrate different levels of liquidity (and thus, presumably, different levels of liquidity risk), we have decided not to propose to exclude certain investment strategies from the scope of the proposed rule.[627] Our cost estimates associated with the proposed liquidity risk management program requirement reflect staff analysis showing that certain types of funds tend to have relatively more liquid portfolios than others.[628]

We do note, however, that the staff's analysis discussed in the previous two paragraphs may overstate the difference in liquidity risk between funds with differing levels of asset liquidity for two reasons. First, the analysis performed by the staff does not reflect the fact that smaller funds will have smaller positions in the underlying equities, and sales of relatively small positions should result in less price impact than sales of larger positions (although the sale of smaller positions should have greater transaction costs as a percentage of sale proceeds). However, with respect to U.S. equity funds, staff analysis indicates that, on average, smaller funds hold assets that are relatively less liquid, which may at least partially offset that fact.[629] Second, the analysis does not reflect the fact that less liquid funds, regardless of style or size, may have larger cash and cash equivalent holdings or liquid asset buffers that may offset their less liquid holdings. Staff analysis does show that cash and cash equivalent holdings vary, on average, according to the funds' strategy, but cash and cash equivalent holdings also vary significantly among funds within a particular strategy.[630] That result implies that, even within a relatively less liquid strategy, certain funds within the strategy hold relatively little cash and cash equivalents.

c. Trends in the Manner in Which Funds' Portfolio Management Responds to Changes in Flow Volatility and Decreases in Market Liquidity

While portfolio managers consider a variety of factors when constructing a fund's portfolio (including the fund's investment strategies, economic and market trends, portfolio asset credit quality, and tax considerations), meeting daily redemption obligations is fundamental for open-end funds, and funds need to manage liquidity in order to meet obligations. We understand, based on statements from members of the fund industry and staff outreach, that funds generally consider the portfolio management process to be of central importance in managing funds' liquidity risk.[631] Commission staff has analyzed whether the liquidity of funds' portfolio holdings, as well as funds' holdings of cash and cash equivalents, is correlated with certain events that could affect a fund's liquidity risk—that is, increased flow volatility, and decreased market liquidity. As described in more detail below, staff analysis shows empirical results indicating that funds' portfolio holdings tend to be less liquid, and their holdings of cash and cash equivalents tend to be lower, when funds encounter periods of decreased flow volatility. These results indicate that certain funds' portfolio construction takes liquidity risk management into account and, as discussed below, the details comprising these results have both reinforced our understanding of the benefits of the proposed regulations and have shaped certain of the provisions of the proposed regulations.

The results of the staff's analysis demonstrate that, with respect to U.S. equity funds, the liquidity of funds' holdings of equity securities is higher

[620] The analysis discussed in this section reflects an evaluation of data on U.S. funds (primarily, U.S. equity funds and U.S. municipal bond funds) from the years 1999–2014, conducted by economists in the Commission's Division of Economic and Risk Analysis. DERA Study, *supra* note 39.

[621] For these purposes, ''average liquidity of a fund's equity positions'' is defined as the asset-weighted average liquidity of the individual equity positions held by the fund. Liquidity for individual equity positions is calculated using the Amihud liquidity measure because it is a widely accepted liquidity measure. *See id.,* section 4.1. *See also* Yakov Amihud, *Illiquidity and Stock Returns: Cross-Section and Time-Series Events,* 5 J. of Fin. Markets (2002) 31 (''Amihud'').

[622] DERA Study, *supra* note 39, at pp. 31–32.

[623] *See infra* section IV.C.3.b.

[624] DERA Study, *supra* note 39, at pp. 29–30.

[625] *Id.*

[626] *See infra* section VI; *infra* note 727 and accompanying text.

[627] *See infra* notes 726–727 and accompanying text.

[628] *See infra* section IV. C.1. and accompanying text.

[629] DERA Study, *supra* note 39, at pp. 29–30.

[630] DERA Study, *supra* note 39, at pp. 10–12. The DERA Study describes how cash and cash equivalents are defined for these purposes.

[631] *See, e.g.,* ICI FSOC Notice Comment Letter, *supra* note 16, at 14 (''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.'').

when flow volatility is higher.[632] As discussed above, staff's analysis with respect to trends that reflect the liquidity of funds' non-cash (or cash equivalent) holdings is limited to an analysis of U.S. equity funds, on account of limitations in the availability of current data with respect to the holdings of funds that are not U.S. equity funds.[633] However, the staff was able to conduct similar analyses regarding the relationship between flow volatility and portfolio liquidity with respect to U.S. municipal bond funds, which are unique in that their holdings typically consist only of U.S. municipal bonds and cash and cash equivalents. Because U.S. municipal bonds are less liquid than cash, any change in the relative holdings of municipal bonds and cash and cash equivalents indicates a change in the fund's portfolio liquidity. Unlike U.S. municipal bond funds, other types of funds tend to hold portfolio assets that are not as homogenous, and thus staff would not be able to assume that changes in relative holdings across asset classes could indicate a change in the fund's portfolio liquidity. With respect to U.S. municipal bond funds, the holdings of municipal bonds (as opposed to these funds' holdings of cash and cash equivalents) are relatively lower when flow volatility is higher; holdings of municipal bonds are higher and holdings of cash and cash equivalents are lower when flow volatility is lower.[634] Thus, like U.S. equity funds, U.S. municipal bond funds' portfolio liquidity tends to be higher when flow volatility is higher. Likewise, staff analysis of the cash and cash equivalent holdings of all funds (regardless of strategy) shows that funds with more volatile flows tend to hold more cash and cash equivalents.[635]

The results of staff's analysis on the relationship between portfolio liquidity and fund flow volatility are significant for several reasons. First, these results suggest that, as indicated by funds in the course of staff outreach and in funds' statements regarding their liquidity risk management, some funds actively manage their portfolio liquidity to respond to events that could challenge funds' ability to plan to meet redemption requests. These results also emphasize that flow volatility is a relevant factor that a fund should consider when assessing liquidity risk and managing the liquidity profile of its portfolio. Rule 22e–4 as proposed reflects this by requiring a fund to consider its cash flow projections in assessing its liquidity risk (and determining its three-day liquid asset minimum), including the volatility of historical purchases and redemptions of fund shares during normal and stressed periods.[636]

While increased flow volatility could make a fund less certain as to the extent of redemption requests it will be required to meet, changes in market liquidity (that is, the extent to which market factors affect the liquidity of a fund's portfolio holdings) could make a fund less certain that the assets its holds are sufficient to meet redemption requests, or meet such requests in a way that minimizes dilution of non-redeeming shareholders. Thus, both increased flow volatility and decreased market liquidity could increase a fund's liquidity risk. While staff analysis shows that U.S. equity fund liquidity decreased sharply during the 2007–2009 financial crisis, the cause of this decrease in liquidity is initially unclear.[637] Fund liquidity could have decreased because of a general decrease in the liquidity of all assets in the market, or fund liquidity could have decreased as a result trading activity—for instance, if the fund were to sell its most liquid assets to pay redeeming shareholders or if the fund were to buy less liquid assets because of perceived profit opportunities. Staff analysis, however, suggests that decreases in the liquidity of U.S. equity funds are generally driven by changes in market liquidity and that funds do limited trading to offset such decreases.[638] For the average U.S. equity fund, when market liquidity decreases by 1% from the previous quarter, fund liquidity decreases by 0.93% from the previous quarter. Conversely, when market liquidity increases by 1% from the previous quarter, fund liquidity increases by 0.82% from the previous quarter.[639] So, while the results are consistent with the view that U.S. equity funds actively manage their portfolio liquidity, funds appear to make only minor adjustment to their portfolio in response to changes in market liquidity.[640]

This analysis demonstrates that fund portfolio liquidity tends to be lower during periods of decreased market liquidity. Based on this analysis, if a shareholder were to redeem shares during a period of decreased market liquidity, funds would likely have a less liquid portfolio of assets available to sell to meet redemptions. To the extent that selling those relatively less liquid assets requires the fund to accept a discount from the assets' market value, the value of the fund's shares would be negatively affected. Our staff's analysis thus highlights a source of potential concern regarding investor protection, reinforcing our motivation to propose regulations to better protect investors by enhancing funds' liquidity risk management. A primary benefit of the proposed liquidity risk management program requirement, discussed below, is the potential for the requirement to improve investor protection by decreasing the likelihood that a fund would be unable to meet its redemption obligations, or meet such obligations by materially affecting the fund's NAV.[641]

d. Trends in Fund Strategies To Meet Redemption Requests

A fund may meet redemption requests in a variety of ways, including by using available cash to pay all redemptions. If a fund were to sell portfolio assets in order to meet redemption requests, the fund's portfolio liquidity will be affected by the choice of which assets will be sold. Subsequent rebalancing of the fund's portfolio after redemptions are met will also affect portfolio liquidity. For example, a fund facing a large redemption request can lessen the price impact of selling assets by selling the most liquid portion of the portfolio.[642] That choice benefits non-redeeming investors by minimizing the loss in fund value due to the price impact of selling, but it also could increase the liquidity risk of the fund portfolio.[643] If the fund instead were to

[632] DERA Study, *supra* note 39, at p. 37.

[633] *See supra* notes 622–623 and accompanying text.

[634] DERA Study, *supra* note 39, at pp. 39–40.

[635] DERA Study, *supra* note 39, at pp. 41–42.

[636] *See* proposed rule 22e–4(b)(2)(iii)(A)*(1)*.

[637] DERA Study, *supra* note 39, at pp. 30–31.

[638] DERA Study, *supra* note 39, at Section 6. As discussed above, staff's analysis with respect to trends that reflect the liquidity of funds' non-cash (or cash equivalent) holdings is limited to an analysis of U.S. equity funds, on account of limitations in the availability of current data with respect to the holdings of funds that are not U.S. equity funds. *See also supra* notes 622–623 and accompanying text.

[639] DERA Study, *supra* note 39, at pp. 34–35.

[640] Funds may be unable to fully offset decreases in market liquidity because of their investment mandate. A small cap mutual fund cannot simply begin buying only large cap stocks just because the liquidity of small cap stocks has decreased.

[641] *See infra* section IV.C.1.b.

[642] We note that in some instances, selling only the most liquid assets 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.

[643] *See, e.g., supra* note 37 (discussing recent circumstances in which, during a year of heavy redemptions that caused a high yield bond fund's

sell a ''strip'' of the portfolio (*i.e.,* a cross-section or representative selection of the fund's portfolio assets), the 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 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. Additionally, funds could choose to opportunistically pare back or eliminate holdings in a particular asset or sector to meet redemptions.

Staff analysis of the impact of large redemptions on portfolio liquidity suggests that the typical U.S. equity fund does not sell a strip of its portfolio assets to meet 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.[644] Similarly, staff analysis shows that when 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 and cash equivalents), thus decreasing the fund's overall portfolio liquidity.[645] This suggests that U.S. municipal bond funds tend to satisfy redemption requests with cash, and not by selling a strip of the fund's portfolio assets.

Holding all else equal, as the liquidity of a U.S. equity fund portfolio decreases, the price impact of selling a strip of that portfolio increases.[646] As a result, we would expect less liquid U.S. equity funds to have greater incentive to meet redemption requests by selling their most liquid assets rather than a strip of their portfolio. Staff analysis suggests that, as initial liquidity decreases, U.S. equity funds do become more likely to disproportionately sell their relatively more liquid assets, rather than strips of their portfolio, to meet redemptions.[647] That choice has the effect of decreasing the liquidity of the portfolio, which could potentially disadvantage non-redeeming shareholders by increasing the fund's liquidity risk.[648] As discussed below, we believe that a significant benefit of the liquidity risk management program requirement is the decreased possibility that a fund's actions taken in order to pay redemptions would result in negative effects on the fund's liquidity profile that could ultimately harm non-redeeming shareholders.[649]

3. Fund Industry Developments Highlighting the Importance of Funds' Liquidity Risk Management

a. Overview

Along with staff analysis of economic relationships regarding funds' portfolio liquidity, evaluating recent fund industry developments also point to concerns about the need for funds to have liquidity risk management programs that will reduce the risk that funds will be unable to meet redemption obligations without materially affecting the fund's NAV or risk profile and mitigate dilution of interests of fund shareholders.[650] These developments include the growth in assets managed by funds with strategies that are generally viewed as concentrating in relatively less liquid asset holdings, as well as the growth in assets managed by funds with strategies that tend to exhibit relatively high portfolio flow volatility, which could give rise to increased liquidity risk. This section provides details about these industry trends.

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 examine trends regarding the volatility and predictability of fund flows, discussing in particular those 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 materially affecting a fund's NAV or dilution of 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 assets), 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 to liquidity risk, we believe that all types of funds entail liquidity risk to some extent.[651] 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 2014, there were 8,734 open-end funds (excluding money market funds, but including ETFs), as compared to 5,279 at the end of 1996.[652] The assets of these funds were $15.05 trillion in 2014, having grown from about $2.63 trillion in 1996.[653] Within these figures, the number of ETFs and ETFs' assets have increased notably in the past decade. There were 1,411 ETFs in 2014, as opposed to a mere 119 in 2003, and ETFs' assets have increased from $151 billion in 2003 to $1.9 trillion in 2014.[654]

U.S. equity funds represent the greatest percentage of U.S. open-end fund industry assets.[655] Excluding ETFs, money market funds and variable annuities, open-end U.S. equity funds held 44.5% of U.S. fund industry assets as of the end of 2014. The investment

assets to shrink 33% in this period, the fund's holdings of bonds rated triple-C or below grew to 47% of assets, from 35% before the redemptions).

[644] DERA Study, *supra* note 39, at pp. 43–46.

[645] DERA Study, *supra* note 39, at pp. 47–49; *see also supra* notes 633–634 and accompanying text (discussing the staff's assumptions that a decrease in the holdings of municipal bonds by a U.S. municipal bond fund would increase the fund's liquidity, as well as the reasons that the staff does not make similar assumptions about funds other than U.S. municipal bond funds).

[646] DERA Study, *supra* note 39, at pp. 25–26. The Amihud liquidity measure used in this analysis measures price impact. When using this measure, price impact increases when liquidity decreases, by definition. However, using alternative measures of liquidity, this statement would not necessarily be true. *See supra* note 621.

[647] DERA Study, *supra* note 39, at pp. 45–46 and Table 19.

[648] While a holder of an illiquid asset receives compensation in the form of an illiquidity premium (*see, e.g.,* Amihud, *supra* note 621, at 31), non-redeeming investors might not be aware of the change in portfolio liquidity and would therefore maintain an allocation that does not reflect their liquidity risk preference.

[649] *See infra* section IV.C.1.b.

[650] *See supra* section IV.A.

[651] *See supra* section III.A.2.

[652] *See* 2015 ICI Fact Book, *supra* note 3, at 177, 184.

[653] *See* 2015 ICI Fact Book, *supra* note 3, at 175, 183.

[654] *See* 2015 ICI Fact Book, *supra* note 3, at 60.

[655] DERA Study, *supra* note 39, at Table 1.

strategies with the next-highest percentages of U.S. fund industry assets are foreign equity funds (15.4%), mixed strategy funds (13.7%), and general bond funds (13.3%).[656] Funds with alternative strategies 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.[657]

While the overall growth rate of funds' assets has been generally high (about 8.0% per year, between the years 2000 and 2014[658]), it has varied significantly by investment strategy.[659] U.S. equity funds' assets grew substantially in terms of dollars from the end of 2000 to 2014,[660] 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.[661] 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 2014, but each of these sectors' assets as a percentage of the fund industry decreased during this period.[662] On the other hand, the assets of foreign equity funds, general bond funds, and foreign bond funds increased steadily and substantially as a percentage of the fund industry over the same period.[663] For example, foreign equity funds increased steadily from 10.6% of total industry assets in 2000 to 15.4% in 2014. And within these three investment strategies, certain investment subclasses (emerging market debt and emerging market equity) have grown particularly quickly from 2000 to 2014.[664]

The assets of funds with alternative strategies[665] also have grown rapidly in recent years. From 2005 to 2014, the assets of alternative strategy funds grew from $366 million to $334 billion, and from the end of 2011 to the end of 2013, the assets of alternative strategy funds grew by 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.[666] While growth in funds with alternative strategies has slowed over the past year, a rising interest rate environment could cause inflows to these funds to increase once again, as investors look to reduce their interest rate risk and/or increase income by investing in alternative strategies.[667]

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.[668] As investments in funds increase, the need for continued effective regulations to protect investors is paramount. Initiatives such as the proposed liquidity regulations, which aim to promote shareholder protection by enhancing funds' liquidity risk management, are important to decrease the risk that funds will be unable to meet redemption obligations and reduce potential dilution of the interests of fund shareholders.

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,[669] 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.[670] Emerging market debt funds may invest in relatively illiquid securities with lengthy settlement periods.[671] Likewise, funds with alternative strategies may invest in portfolio assets that are relatively illiquid.[672] Moreover, Commission staff 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,[673] which could increase these funds' liquidity risk by making it more difficult to plan to meet fund redemptions (and thus, more likely that a fund may need to sell portfolio assets in a manner that creates a market impact in order to pay redeeming shareholders).[674] On account of these characteristics of high-yield bond funds, emerging market debt

[656] *Id.* The figure for general bond funds does not include assets attributable to foreign bond funds (2.0%), U.S. corporate bond funds (0.8%), U.S. government bond funds (1.3%), and U.S. municipal bond funds (4.5%).

[657] DERA Study, *supra* note 39, at pp. 7–8.

[658] DERA Study, *supra* note 39, at Table 2.

[659] The figures in this paragraph and the following paragraph, discussing the variance in growth rate of funds' assets by investment strategy, exclude ETF assets.

[660] U.S. equity funds held about $5.6 trillion as the end of 2014, compared to about $2.9 trillion at the end of 2000. DERA Study, *supra* note 39, at Table 2.

[661] DERA Study, *supra* note 39, at Table 2.

[662] *Id.* U.S. corporate bond funds held about $99 billion at the end of 2014, 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 2014. U.S. government bond funds held about $166 billion at the end of 2014, 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 1.3% in 2014. U.S. municipal bond funds held about $565 billion at the end of 2014, 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 4.5% in 2014.

[663] *Id.* Foreign equity funds held about $1.9 trillion in 2014, as opposed to $465 billion in 2000; these funds' assets as a percentage of the U.S. fund industry increased from 10.6% in 2000 to 15.4% in 2014. U.S. general bond funds held about $1.7 trillion at the end of 2014, 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 13.3% in 2014. Foreign bond funds held about $259 billion at the end of 2014, 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 2.0% in 2014.

[664] DERA Study, *supra* note 39, at p. 9. Emerging market debt and emerging market equity funds held about $334 billion at the end of 2014, as opposed to $20 billion in 2000. The assets of emerging market debt funds and emerging market equity funds grew by an average of 20.8% and 22.7%, respectively, each year from 2000 through 2014.

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 2.6% at the end of 2014).

[665] *See supra* note 64 for a discussion of the primary investment strategies practiced by ''alternative strategy'' funds.

[666] *See supra* note 657 and accompanying text.

[667] *See supra* note 66.

[668] *See supra* note 6 and accompanying text.

[669] *See supra* note 62 and accompanying text.

[670] 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* note 83; *see also* SEC Investor Bulletin, What Are High-Yield Corporate Bonds?, *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* BlackRock, Viewpoint, Who Owns the Assets?, *supra* note 79 (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).

[671] *See, e.g., supra* note 197 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* BlackRock, Viewpoint, Who Owns the Assets?, *supra* note 79 (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).

[672] *See supra* notes 68–72 and accompanying text.

[673] DERA Study, *supra* note 39, at pp. 16–24.

[674] *See supra* notes 269–270 and accompanying text.

funds, and funds with alternative strategies, we are concerned that the growth in these strategies could give rise to increased concerns regarding these funds' liquidity risk.

C. Benefits and Costs, and Effects on Efficiency, Competition, and Capital Formation

Taking into account the goals of the proposed liquidity regulations and the economic baseline, as discussed above, this section explores the benefits and costs of the proposed liquidity regulations, as well as the potential effects of the proposed liquidity regulations on efficiency, competition, and capital formation. This section also discusses reasonable alternatives to proposed rule 22e–4, proposed rule 22c–1(a)(3), and the proposed disclosure and reporting requirements regarding funds' liquidity risk and liquidity risk management and swing pricing.

1. Proposed Rule 22e–4

a. Requirements of Proposed Rule 22e–4

Proposed rule 22e–4 would require each fund to establish a written liquidity risk management program. The proposed rule specifies that a fund's liquidity risk management program shall include the following required program elements: (i) Classification and ongoing review of the classification of the liquidity of each of the fund's positions in a portfolio asset (or portions of a position in a particular asset), taking into account certain specified factors set forth in the rule;[675] (ii) assessment and periodic review of the fund's liquidity risk taking into account certain specified factors set forth in the rule;[676] and (iii) management of the fund's liquidity risk.[677] A fund's policies and procedures for managing liquidity risk, in turn, must incorporate the determination and periodic review of the adequacy of a fund's three-day liquid asset minimum (that is, the percentage of the fund's net assets that must be invested in three-day liquid assets).[678] Proposed rule 22e–4 would also prohibit a fund from acquiring any: (i) Less liquid asset, if immediately after the acquisition, the fund would have invested less than its three-day liquid asset minimum in three-day liquid assets;[679] or (ii) 15% standard asset, if immediately after the acquisition, the fund would have invested more than 15% of its net assets in 15% standard assets.[680] In addition, proposed rule 22e–4 would require a fund to establish 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.[681]

A fund's board, including a majority of the fund's independent directors, would be required to approve the fund's liquidity risk management program (including the fund's three-day liquid asset minimum), as well as any material change to the program.[682] The fund would be required to designate the fund's adviser or officers responsible for administering the program, and such designation is required to be approved by the fund's board of directors.[683] The fund's board would also be required to review, at least annually, a written report prepared by the fund's investment adviser or officers administering the liquidity risk management program reviewing the adequacy of the fund's liquidity risk management program, including the fund's three-day liquid asset minimum, and the effectiveness of its implementation.[684]

Proposed rule 22e–4 also includes certain recordkeeping requirements. A fund would be required to keep a written copy of its liquidity risk management policies and procedures, as well as copies of any materials provided to the fund's board in connection with the approval of the initial liquidity risk management program and any material changes to the program and annual board reporting requirement.[685] A fund also would be required to keep a written record of how its three-day liquid asset minimum, and any adjustments thereto, were determined.[686]

b. Benefits

We believe that proposed rule 22e–4 is likely to produce benefits for current and potential fund investors. Specifically, we believe that the proposed program requirement is likely to improve investor protection by decreasing the chance that a fund would be unable to meet its redemption obligations, would meet such obligations only by materially affecting the fund's NAV, 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). Funds are not currently subject to specific requirements under the federal securities laws or Commission rules obliging them to manage their liquidity risk.[687] Also, with the exception of money market funds, funds are currently guided by Commission guidelines (not rules) that generally limit their investment in illiquid assets.[688] As discussed above, funds today employ notably different practices for assessing and classifying the liquidity of their portfolio assets, as well as for assessing and managing fund liquidity risk. Some of these practices take into account multiple aspects relating to portfolio assets' liquidity (including relevant market, trading, and asset-specific factors), involve comprehensive assessment and robust management of fund liquidity risk, and incorporate ongoing review of both portfolio liquidity and fund liquidity risk. Outreach by Commission staff has found that practices of some funds raise concerns regarding various funds' ability to meet their redemption obligations and lessen the effects of dilution. Also, while some funds have independent oversight of their liquidity risk outside of the portfolio management process, others do not. While a fund's portfolio management has access to a great deal of information relevant to the liquidity of the fund's portfolio assets, and thus pertinent to the fund's liquidity risk, a portfolio manager may have conflicts of interest that could impede effective liquidity risk management.[689] For example, because investments in relatively less liquid assets may result in higher total returns for a fund, fund managers may have incentive to increase their funds' investment in illiquid assets levels in a manner that is potentially inconsistent with the funds' expected and reasonably foreseeable redemptions. Consequently, to the extent that some funds do not currently meet the minimum baseline requirements for fund assessment and management of liquidity risk proposed in this rule, investor protection would be enhanced by reducing the risk that funds will be unable to meet redemption obligations and mitigating dilution of fund shareholders.

We believe that the proposed liquidity risk management program requirement would 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, proposed rule 22e–4 would require each fund to consider a

[675] Proposed rule 22e–4(b)(2)(i)–(ii).

[676] Proposed rule 22e–4(b)(2)(iii).

[677] Proposed rule 22e–4(b)(2)(iv).

[678] Proposed rule 22e–4(b)(2)(iv)(A)–(B).

[679] Proposed rule 22e–4(b)(2)(iv)(C).

[680] Proposed rule 22e–4(b)(2)(iv)(D).

[681] Proposed rule 22e–4(b)(2)(iv)(E).

[682] Proposed rule 22e–4(b)(3)(i).

[683] Proposed rule 22e–4(b)(3)(iii).

[684] Proposed rule 22e–4(b)(3)(ii).

[685] Proposed rule 22e–4(c)(1) and (2).

[686] Proposed rule 22e–4(c)(3).

[687] *See supra* section IV.B.1.a.

[688] *See id.*

[689] *See* text accompanying *supra* note 258.

standard set of factors, as applicable, in classifying the liquidity of its portfolio assets and in assessing its liquidity risk, and to determine a three-day liquid asset minimum to increase the likelihood that the fund will hold adequate liquid assets to meet redemption requests without materially affecting the fund's NAV. Each fund would have flexibility to determine the particular assets that it holds in connection with its three-day liquid asset minimum. 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. While one fund may conclude that it is appropriate to hold a significant portion of its three-day liquid assets 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 three-day liquid asset minimum holdings. We believe that the proposed three-day liquid asset minimum requirement would allow funds to continue to meet a wide variety of investors' investment needs by obliging funds to maintain appropriate liquidity in their portfolios, while permitting funds to remain substantially invested in portfolio assets that conform to their investment strategies. The limitation on acquisition of 15% standard assets would complement the three-day liquid asset minimum requirement to increase the likelihood that a fund's portfolio is not overly concentrated in assets whose liquidity is extraordinarily limited.

We believe that the proposed rule also would decrease the probability that a fund will be able to meet redemption requests only 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 does not effectively manage liquidity and is faced with significant redemptions, it may be forced to sell portfolio assets under unfavorable circumstances, which could create significant negative price pressure on those assets.[690] This, in turn, could disadvantage non-redeeming shareholders by decreasing the value of those shareholders' interests in the fund.[691] 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 suggests that U.S. equity funds may dispose of relatively more liquid assets first, 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.[692] Short-term borrowings by a fund to meet redemption requests also could disadvantage non-redeeming shareholders by leveraging the fund and requiring 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). For example, in a settled enforcement action, the Commission found that certain high-yield bond funds experienced liquidity problems and as a result, the funds borrowed heavily against a line of credit to meet fund redemption requests, which permitted shareholders to redeem fund shares at prices above the fair value of the fund's holdings. The result was a benefit to redeeming shareholders at the expense of remaining and new shareholders.[693] 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 could adversely affect a fund's NAV. It is possible that such costs could exceed any price impact caused by asset sales conducted to generate liquidity, particularly since the costs of maintaining a committed line of credit are ongoing costs, whereas the price impact caused by asset sales could be only temporary. To the extent that the proposed program requirement results in liquidity risk assessment and management that enhance funds' ability to meet redemption obligations, it would be less likely that a fund takes actions to pay redemptions that would materially affect the fund's NAV or have other adverse impacts on non-redeeming shareholders.

The potential negative consequences of asset sales effected to pay fund redemptions could create incentives in times of liquidity stress in the markets for early redemptions, or a ''first-mover advantage.''[694] For example, recent 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.[695] 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. Among U.S. equity funds, staff analysis suggests that, as a fund's liquidity decreases, a fund will become more likely to sell its relatively more liquid assets to pay redemptions (thus resulting in decreased liquidity in the fund's portfolio).[696] Thus, 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 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 decreased portfolio liquidity. 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,[697] we cannot predict how investors may behave in the future. The first-mover advantage is more commonly referenced with respect to money market funds, but the incentives that have been argued to create the first-mover advantage among those funds exist (in possibly weaker form) among other open-end funds. To the extent that economic incentives exist to redeem fund shares prematurely, this could lead to investor dilution as discussed above, and the possibility of protecting against this potential dilution is one motivating aspect (but not the only or key

[690] *See* Coval & Stafford, *supra* note 51 (discussing how mutual fund fire sales impact asset prices).

[691] 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.*

[692] *See supra* note 39 and accompanying discussion.

[693] Heartland Release, *supra* note 47.

[694] *See supra* note 49 and accompanying text (discussing the possibility of a first-mover advantage with respect to the timing of shareholder redemption from funds). *But see supra* note 50 (discussing 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).

[695] *See* Coval & Stafford, *supra* note 51; Dyakov & Verbeek, *supra* note 51.

[696] *See supra* section II.B.2.

[697] *See, e.g.,* Comment Letter of Wellington Management Group LLP on the FSOC Notice (Mar. 25, 2015), at 4; ICI FSOC Notice Comment Letter, *supra* note 16, at 7; Nuveen FSOC Notice Comment Letter, *supra* note 45, at 10 (all arguing that evidence shows that fund shareholders' redemptions are largely driven by other concerns rather than a theoretical first-mover advantage).

motivating aspect[698]) of the overall goal of investor protection that we believe the proposed rule 22e–4 would accomplish.

We recognize that certain funds already engage in fairly comprehensive liquidity risk management practices, and the proposed program requirement would likely benefit these funds' shareholders less than it would benefit the shareholders of funds that do not employ equally rigorous practices. The proposed program requirement aims to promote a minimum baseline in the fund industry, both in the assessment of portfolio assets' liquidity and the evaluation of factors relevant to liquidity risk management. This, in turn, we believe would 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 materially affect fund NAVs or risk profiles, and mitigating dilution of shareholder interests. 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, proposed rule 22e–4 would enhance current liquidity risk management practices.

We also believe that the liquidity risk management program requirement, as proposed, would not adversely impact fund diversity and investor choice. While the proposed liquidity risk management program requirement would include certain required elements, and would require a fund to consider certain specified factors in classifying the liquidity of its portfolio assets and assessing its liquidity risk, it would not produce a de facto prohibition against certain investment strategies. We anticipate that the proposed three-day liquid asset minimum requirement would be sufficiently flexible to permit funds with different investment strategies, and whose cash flow and liquidity needs vary notably from one fund to the next, to manage their individual levels of liquidity risk. This proposed requirement would not mandate a standard level of minimum liquid asset holdings across the fund industry. Proposed rule 22e–4 thus would allow a fund with a relatively less liquid investment strategy to continue operating under that strategy, so long as the fund determines a three-day liquid asset minimum that takes into account the factors required to be considered under the proposed rule, and invests its assets in compliance with its three-day liquid asset minimum. (We recognize, however, that the proposed rule could result in a fund modifying its portfolio composition if it determines that the three-day liquid asset minimum that it should hold, as a result of its consideration of the required factors specified in the proposed rule, does not correspond with the fund's current portfolio composition.[699]) The proposed requirement would not adversely impact the diversity of investment strategies within the fund industry and would permit a fund investor to choose appropriate investment options for his or her risk tolerance and risk preferences.[700]

Finally, to the extent that the proposed program requirement results in funds less frequently needing to sell portfolio assets in unfavorable market conditions in order to meet redemptions, the proposed requirement also could lower potential spillover risks that funds could pose to the financial markets generally. For example, the proposed approach could decrease the risk that all investors holding an asset would be affected if a fund facing heavy redemptions were forced to sell portfolio assets under unfavorable circumstances, which in turn could create significant negative price pressure on those assets. If, as a result of the proposed program requirement, a fund was prepared to meet redemption requests in other ways, the proposed rule could decrease the risk that the fund might indirectly transmit stress to other market sectors and participants. While there have been examples of funds' liquidity risk management preventing spillover market effects that could have arisen in the face of significant shareholder redemptions, this prevention of larger market effects has occurred because of funds' organic liquidity risk management practices, and not because of any specific liquidity risk management requirements. It is unclear whether such organic practices will be sufficient to prevent future spillover market events of similar or greater magnitude. The proposed rule should help all funds, not just funds 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 proposed rule 22e–4, or predict the precise circumstances that could entail negative spillover effects in light of less-comprehensive liquidity risk management by funds.[701]

c. Costs

One-Time and Ongoing Costs Associated With Program Establishment and Implementation

Funds would incur one-time costs to establish and implement a liquidity risk management program in compliance with proposed 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 comprehensiveness, for assessing and classifying the liquidity of their portfolio assets, as well as for assessing and managing fund liquidity risk. Accordingly, funds whose practices regarding portfolio asset liquidity classification and liquidity risk assessment and management most closely align with the proposed liquidity risk management program requirements would incur relatively lower costs to comply with proposed rule 22e–4. Funds whose practices for classifying the liquidity of their portfolio assets and for assessing and managing liquidity risk are less comprehensive or not closely aligned with our proposals, on the other hand, may incur relatively higher initial compliance costs.

Our staff estimates that the one-time costs necessary to establish and implement a liquidity risk management program would range from $1.3 million to $2.25 million[702] per fund complex,

[698] *See supra* notes 690–693 and accompanying text.

[699] *See infra* section IV.C.1.c.

[700] We also believe that investor choice would be facilitated by the proposed enhanced disclosure requirements, as discussed below at section IV.C.3.b.

[701] 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.

[702] These cost estimates are based in part on the staff's recent estimates of the one-time systems costs associated with implementing the fees and gates provisions of the 2014 amendments to rule 2a–7 under the 1940 Act. *See* 2014 Money Market Fund Reform Adopting Release, *supra* note 85, at section III.A.5.b. Although the substance and content of systems associated with establishing and implementing a liquidity risk management program (including any systems changes associated with classifying the liquidity of funds' portfolio positions) would be different from the substance and content of systems associated with implementing the rule 2a–7 fees and gates provisions, the one-time costs associated with proposed rule 22e–4, like the one-time costs associated with the fees and gates provisions, would entail: Srafting relevant procedures; planning, coding, testing, and installing relevant

Continued

depending on the particular facts and circumstances and current liquidity risk management practices of the funds comprising the fund complex.[703] These estimated 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,[704] and the related recordkeeping requirements of the proposed rule; (ii) 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 positions in a portfolio asset (or portions of a position in a particular asset) in a portfolio asset pursuant to proposed rule 22e–4(b)(2)(i)), as well as the recordkeeping requirements of the proposed rule; (iv) preparing training materials and administering training sessions for staff in affected areas; and (v) board approval of the program. We anticipate that if there is demand to develop policies and procedures relating to each of the required program elements, third parties may develop programs that fund complexes could purchase for less than our estimated cost to develop the programs themselves. Indeed, we understand that third parties have already developed programs to classify the liquidity of portfolio assets, which are currently available for purchase.[705] Because the proposed requirement for a fund to limit acquisition of 15% standard assets under certain circumstances is similar to existing Commission guidelines, we assume that a fund complex would incur minimal costs associated with implementing the proposed requirement to limit acquisition of 15% standard assets with respect to each of its respective funds.[706]

We anticipate that, 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. 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 be borne by fund shareholders in the form of fund operating expenses.

Staff estimates that each fund complex would incur ongoing program-related costs, as a result of proposed rule 22e–4, that range from 10% to 25% of the one-time costs necessary to establish and implement a liquidity risk management program.[707] Thus, staff estimates that a fund complex would incur ongoing annual costs associated with proposed rule 22e–4 that would range from $130,000 to $562,500.[708] These costs are attributable to the following activities, as applicable to each of the funds within the complex: (i) Classification and ongoing review of the classification of the liquidity of each of the fund's positions in a portfolio asset (or portions of a position in a particular asset) (proposed rule 22e–4(b)(2)(i)–(ii)); (ii) ongoing review of the fund's liquidity risk (proposed rule 22e–4(b)(2)(iii)); (iii) periodic review of the adequacy of the fund's three-day liquid asset minimum (proposed rule 22e–4(b)(2)(iv)(B)); (iv) systems maintenance; (v) additional staff training; (vi) approval by the board of any material change to the fund's liquidity risk management program (including a change to the fund's three-day liquid asset minimum) (proposed rule 22e–4(b)(3)(i)); (vii) periodic reports to the board of directors reviewing the adequacy of the fund's three-day liquid asset minimum (proposed rule 22e–4(b)(3)(ii)); and (viii) recordkeeping relating to the fund's liquidity risk management program (proposed rule 22e–4(c)).[709]

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system modifications; integrating and implementing relevant procedures; and preparing training materials and administering training sessions for staff in affected areas. *See id.* However, in estimating the one-time costs associated with proposed rule 22e–4, staff has adjusted the estimated one-time systems costs associated with implementing the fees and gates provisions to reflect that the estimated costs associated with implementing the fees and gates provisions include costs to be incurred by the fund and others in the distribution chain (including transfer agents, accountants, custodians, and intermediaries), whose services would be needed if a fund were to impose a fee or gate, whereas we anticipate that the proposed rule 22e–4 requirements would be borne primarily by a fund complex and not by others in the distribution chain.

We note that the estimated one-time systems costs associated with implementing the fees and gates provisions of the 2014 amendments to rule 2a–7 are generally similar to the proposed estimated one-time systems costs associated with implementing the floating NAV provisions of the 2014 rule 2a–7 amendments. *See id.* at section III.B.8.a. However, the proposed estimated one-time systems costs associated with implementing the floating NAV provisions were adjusted downward at adoption, to account for certain considerations specific to the floating NAV reforms. Thus, staff believes that the one-time costs associated with the fees and gates provisions would provide a closer analogue to the estimated costs associated with proposed rule 22e–4 than the one-time costs associated with the floating NAV provisions.

[703] This estimate assumes that each fund would not bear all of the estimated 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.

[704] Specifically, a fund would be required to establish policies and procedures relating to: (i) Classification and ongoing review of the classification of the liquidity of each of the fund's positions in a portfolio asset (or portions of a position in a particular asset) (proposed rule 22e–4(b)(2)(i)–(ii)); (ii) assessment and ongoing review of the fund's liquidity risk (proposed rule 22e–4(b)(2)(iii)); (iii) determination and periodic review of the adequacy of the fund's three-day liquid asset minimum (proposed rule 22e–4(b)(2)(iv)(A)–(B)); (iv) the requirement for the fund not to acquire any less liquid asset if, immediately after the acquisition, the fund would have invested less than its three-day liquid asset minimum in three-day liquid assets (proposed rule 22e–4(b)(2)(iv)(C)); (v) the requirement for the fund not to acquire any 15% standard asset if, immediately after the acquisition, the fund would have invested more than 15% of its net assets in 15% standard assets (proposed rule 22e–4(b)(2)(iv)(D)); and (vi) the requirement to establish 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 (proposed rule 22e–4(b)(2)(iv)(E)).

[705] *See* text accompanying *supra* note 205 (discussing proposed Commission guidance on a fund's use of third-party service providers to obtain data to inform or supplement its consideration of the proposed 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.

[706] *See supra* section III.C.4.a.

[707] These cost estimates are based in part on the staff's recent estimates of the ongoing costs associated with implementing the fees and gates provisions of the 2014 amendments to rule 2a–7 under the 1940 Act. *See supra* note 702 (discussing why staff believes that the costs associated with the fees and gates provisions could be useful to estimate the costs associated with proposed rule 22e–4). In estimating the ongoing costs associated with proposed rule 22e–4, staff has adjusted the ongoing costs associated with implementing the fees and gates provisions to reflect that we anticipate that the costs associated with classifying the liquidity of a fund's portfolio positions would entail the majority of the ongoing costs associated with proposed rule 22e–4. Staff estimates that these costs, in conjunction with other ongoing costs, would exceed the estimated ongoing costs associated with the fees and gates provisions, and thus staff has adjusted these estimates upward (based in part on staff knowledge of costs associated with liquidity analyses prepared by third-party service providers, as well as knowledge of the costs associated with board approval to the extent that a fund's board were required to approve a modified three-day liquid asset minimum).

[708] This estimate is based on the following calculations: $0.10 \times \$1,300,000 = \$130,000$; $0.25 \times \$2,250,000 = \$562,500$.

[709] 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,

For purposes of this analysis, Commission staff estimates, based on outreach conducted with a variety of funds regarding funds' current liquidity risk management practices, that approximately ⅓ of currently-operational fund complexes (or 289 complexes [710]) would incur one-time and ongoing costs on the high end of the range of costs associated with establishing and implementing a liquidity risk management program, and ⅔ of currently-operational fund complexes (or 578 complexes [711]) would incur one-time and ongoing costs on the low end of the range. Based on these estimates, staff further estimates that the total aggregate one-time costs for all funds to establish and implement a liquidity risk management program would be approximately $1.4 billion.[712] In addition, staff estimates that the aggregate annual costs associated with the liquidity risk management program requirement would be approximately $240 million.[713]

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 positions in a portfolio asset, taking into account the factors specified under proposed rule 22e–4(b)(2)(ii), 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 consider the required factors. On the other hand, a fund that invests in assets for which relevant market, trading, and other liquidity-relevant data is less readily available would incur relatively greater costs associated with the classification, and ongoing review of the classification, of the funds' portfolio positions' liquidity. Certain of the factors that a fund would be required to 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 proposed 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 proposed rule 22e–4 will depend to some degree on the level of liquidity risk facing the fund, we are unable to discuss in detail all of the ways in which a fund's individual risks and circumstances could affect the costs associated with establishing a liquidity risk management program.

A fund may incur costs if it decides to reallocate portfolio assets to correspond with its initial or subsequently modified three-day liquid asset minimum. While we are unable to anticipate how many funds may reallocate portfolio assets in this way, 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 portfolio assets at all to correspond with their three-day liquid asset minimum, and those that decide to do so would be able to gradually adjust their portfolios in order to buy and sell portfolio positions during times that are financially advantageous. We note that the three-day liquid asset minimum requirement would limit the *acquisition* of less liquid assets when such acquisition would result in a fund investing less than its three-day liquid asset minimum in three-day liquid assets, but would not require funds always to maintain a certain portion of their portfolio assets in three-day liquid assets.[714] Thus, while a fund may decide to reallocate its portfolio to correspond with its three-day liquid asset minimum by the time of the proposed compliance date or at any time the fund determined to modify the three-day liquid asset minimum, a fund would not be required to conduct transactions in portfolio assets in any particular timeframe, so long as it were to limit its acquisition of less liquid assets in compliance with its three-day

and others could be borne by the adviser. *See* paragraph following *supra* note 706.

[710] In developing the estimate that 289 fund complexes would incur one-time and ongoing costs on the high end of the range of costs associated with establishing and implementing a liquidity risk management program, the staff assumed that that fund complexes that include investment grade bond funds, high yield bond funds, world bond funds (including emerging market bond funds), multi-sector bond funds, state municipal funds, alternative strategy funds, and emerging market equity funds, as well as ETFs with any of these strategies, would incur costs on the high end of the range, and all other complexes would incur costs on the low end of the range. The staff assumed that the percentage of fund complexes that includes these selected investment strategies, as a fraction of all fund complexes, is the same as the percentage of all mutual funds (excluding money market funds) and ETFs that these strategies represent. The actual number of fund complexes that includes these selected strategies could be higher or lower than the number calculated using this assumption.

605 investment grade bond mutual funds + 241 high yield bond mutual funds + 347 world bond mutual funds + 139 multi-sector bond mutual funds + 322 state municipal mutual funds + 376 alternative strategy funds that are equity funds (alternative strategy funds that are bond funds are included in our estimates of the number of bond mutual funds) + 469 emerging market equity mutual funds + 264 bond ETFs + 165 emerging market ETFs = 2,928 funds. 2,928 funds ÷ 8,734 open-end funds (excluding money market funds, and including ETFs) = approximately 33% = approximately ⅓. ⅓ × 867 currently-operational fund complexes = 289 fund complexes. These estimates are based on figures included in the 2015 ICI Fact Book. See 2015 ICI Fact Book, supra note 3, at Fig. 1.8.

[711] In developing the estimate that 578 fund complexes would incur one-time and ongoing costs on the high end of the range of costs associated with establishing and implementing a liquidity risk management program, the staff assumed that that fund complexes that include investment grade bond funds, high yield bond funds, world bond funds (including emerging market bond funds), multi-sector bond funds, state municipal funds, alternative strategy funds, and emerging market equity funds, as well as ETFs with any of these strategies, would incur costs on the high end of the range, and all other complexes would incur costs on the low end of the range. The staff assumed that the percentage of fund complexes that includes these selected investment strategies, as a fraction of all fund complexes, is the same as the percentage of all mutual funds (excluding money market funds) and ETFs that these strategies represent. The actual number of fund complexes that includes these selected strategies could be higher or lower than the number calculated using this assumption.

8,734 open-end funds (excluding money market funds, and including ETFs) − 2,928 funds (see supra note 710) = 5,806 funds. 5,806 funds ÷ 8,734 open-end funds (excluding money market funds, and including ETFs) = approximately 66% = approximately ⅔. ⅔ × 867 currently-operational fund complexes = 578 fund complexes. These estimates are based on figures included in the 2015 ICI Fact Book. See 2015 ICI Fact Book, supra note 3, at Fig. 1.8.

[712] This estimate is based on the following calculation: (578 fund complexes × $1,300,000 = $751,400,000) + (289 fund complexes × $2,250,000 = $650,250,000) = $1,401,165,000.

[713] This estimate is based on the following calculation: (578 fund complexes × $130,000 = $75,140,000) + (289 fund complexes × $562,500 = $162,562,500) = $237,702,500.

[714] *See supra* notes 346–348 and accompanying text.

liquid asset minimum. If a fund wishes to reallocate its portfolio by the proposed compliance date, we anticipate that the proposed compliance date would provide sufficient time to do so with relatively few associated transaction costs. We request comment on this point in section III.H above. 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 assets; these costs are discussed below.[715]

Potential for Decreased Investment Options and Adverse Effects

Under the proposed rule, a fund would be required to determine its three-day liquid asset minimum based on a consideration of certain specified factors relating to the fund's liquidity risk.[716] Because a fund is currently not required to consider any particular factors relating to its portfolio liquidity, we recognize that this requirement could result in a fund newly determining its existing portfolio liquidity profile given the fund's liquidity needs. This could lead a fund to modify its portfolio composition if it determines that the three-day liquid asset minimum that it should hold, as a result of its liquidity risk assessment, does not correspond with the fund's current portfolio composition. The proposed rule thus could result in certain funds increasing their investments in relatively more liquid assets, which in turn could affect the performance and/or risk profiles of funds that modify their portfolio composition in this way. This impact may be particularly strong for funds that plan to meet redemptions within seven days after receiving them (rather than a shorter period of time). Such modifications to funds' portfolio composition consequently could decrease certain investment options available to investors or reduce investor returns. However, because these portfolio composition shifts would occur only if a fund were to determine that it needs to adjust its existing liquidity level based on consideration of the factors in the proposed rule, we anticipate that the potential for decreased yield would likely only 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 corollary benefit of potential decreased liquidity risk in the funds in which these investors hold shares. Currently we are not able to quantify the number of funds that would need to significantly modify their portfolios' risk profile as a result of the proposed rule because of the lack of 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 proposed rule, as well as the availability of relatively liquid assets that can act as adequate substitutes to existing assets for those affected funds. Because funds are not required to report or disclose information concerning the liquidity of their assets, because we cannot anticipate the three-day liquid asset minimum that each fund would determine to be appropriate based on its liquidity risk, and because we cannot determine what relatively more liquid assets funds would purchase as substitutes, we are unable to quantify the total potential costs discussed in this section. However, individual funds would only incur these costs if their current portfolio construction lacks sufficient liquidity to allow the offering of daily redemption without creating significant negative impact on investors.

Market for Relatively Less Liquid Assets

As discussed above, the proposed rule could result in certain funds increasing their investments in relatively more liquid assets, which would effectively mean that these funds would decrease their investments in relatively less liquid assets. If funds decrease their investments in relatively less liquid assets, the market for those assets could become even less liquid. This could discourage new issuances of similar assets and decrease the liquidity of relatively less liquid assets that are still outstanding. The impact of decreased activity from funds in less liquid markets will depend on how much current activity 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 assets are attracted to the market by any lower prices for these assets that result if funds decrease their holdings of less liquid assets.[717] In addition, if the proposed rule leads funds to better assess the liquidity risk associated with certain asset holdings, any decrease in the prices of these assets could reflect more efficient pricing of the assets (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 assets, and because we cannot anticipate the three-day liquid asset minimum that each fund would determine to be appropriate based on its liquidity risk, it is difficult to predict the extent to which the proposed rule could lead funds to modify their portfolio holdings, or whether such modifications would discourage the issuance of certain assets. As a result, we cannot quantify the potential costs discussed in this section. However, these costs will only exist to the extent that some funds lack sufficient liquidity in their current portfolio to allow the offering of daily redemption without creating significant negative impact on investors.

d. Effects on Efficiency, Competition, and Capital Formation

The proposed liquidity risk management program requirement would require a fund to assess its liquidity risk and to determine its three-day liquid asset minimum based on this risk assessment. We believe that the proposed requirements would 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 viewed as a drag on the ability of a fund's NAV to reflect the performance of its portfolio. Additionally, the requirement for a fund to classify the liquidity of its portfolio assets (along with the related reporting and disclosure requirements, discussed below) also could increase allocative efficiency by assisting investors in making investment choices that better match their risk tolerances.

By enhancing funds' liquidity risk assessment and risk management, the proposed program requirement also could promote pricing efficiency in the sense that it would decrease the likelihood that a fund would be forced

[715] *See infra* paragraphs accompanying notes 716–717.

[716] Proposed rule 22e–4(b)(2)(iv)(A).

[717] Relatively less liquid assets have a higher expected return compared to relatively more liquid assets, thereby compensating longer-term investors for holding relatively less liquid assets. *See* Yakov Amihud & Haim Mendelson, *Asset Pricing and the Bid-Ask Spread*, 17 J. Fin. Econ. 223 (1986).

to sell portfolio assets under unfavorable circumstances in order to meet redemptions (thus creating significant negative price pressure on those assets) without materially affecting the fund's NAV or risk profile. If a fund's asset sales were to temporarily move asset prices away from their market value, 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 proposed program requirement could negatively affect the efficient pricing of relatively less liquid assets if it indirectly discourages funds from investing in them (for example, if a fund were to decrease its investments in less liquid assets if it determines that the three-day liquid asset minimum that it should hold, as a result of its liquidity risk assessment, does 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 assets on account of any lower prices for these assets that result if funds decrease their holdings of these assets.[718] 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 assets.

If the proposed liquidity risk management program requirement results in a material decrease in funds' investment in relatively less liquid assets, competition for these assets would be negatively affected. Under this scenario, the relatively less liquid assets in which funds formerly would have invested may become even less liquid, since the number of current or potential market participants would be reduced. This decrease in competition may be partially offset if some other investors become willing to invest in relatively less liquid assets because of the larger illiquidity discount now associated with the price of those assets. As a corollary, if the proposed liquidity risk management program requirement results in a material increase in funds' investment in three-day liquid assets, competition for these assets would be positively affected. As funds increase their investment in relatively more liquid assets, the liquidity of those assets should increase. However, that increase may be partially offset if some other investors decrease their investment in relatively more liquid assets because of the larger liquidity premium now associated with the price of those assets.

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 administrating 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's[719]) 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 classify the liquidity of their portfolio assets, 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,[720] 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 agreements that may not be available to funds in smaller complexes.

Any changes in certain assets' or asset classes' liquidity that could indirectly result from the proposed liquidity risk management program requirement (for example, as discussed above, if the number of buyers and sellers for certain assets becomes significantly reduced as a result of the program requirement) could also affect capital formation among issuers of these assets. Some firms could be discouraged from issuing new securities in particular asset classes because of price discounts associated with lower liquidity. Or if changes in liquidity are not equal across all asset classes, firms 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).

e. Reasonable Alternatives

In formulating our proposal, we have considered various alternatives to the individual elements of proposed rule 22e–4. Those alternatives are outlined above in the sections discussing the proposed rule elements, and we have requested comment on these alternatives.[721] The following discussion addresses significant alternatives to proposed rule 22e–4, which involve broader issues than the more granular alternatives to the individual rule elements discussed above.

Instead of proposing rule 22e–4, we could issue guidance surrounding the classification of portfolio assets' liquidity and the assessment and management of liquidity risk. 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. Also, an approach that involves rulemaking, as opposed to merely guidance, would permit us to examine registrants' compliance with the requirements and bring enforcement actions relating to non-compliance and hence make it more likely that the benefits discussed above would be realized.

We considered proposing liquidity requirements similar to those imposed on money market funds—that is, the requirement to hold a minimum level of highly liquid asset holdings, and the ability to impose redemption fees and gates.[722] 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.[723] 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 below why we decided not to propose that funds hold a minimum level of highly liquid asset holdings (similar to the portfolio liquidity requirements applicable to

[718] *See supra* section IV.C.1.c.

[719] *See* paragraph following *supra* note 706.

[720] *See supra* section III.C.5.a (discussing and providing guidance on the use of these tools).

[721] *See supra* sections III.A.3, III.B.1.b, III.B.2.j, III.B.3.b, III.C.1.e, III.C.2.b, III.C.3.d, III.C.4.b, III.C.5.e, III.D.4, III.E.

[722] *See supra* notes 154–155 and accompanying text.

[723] *See* 2014 Money Market Fund Reform Adopting Release, *supra* note 85, at section II.

money market funds). While funds are currently permitted under rule 22c–2 to impose redemption fees under certain circumstances, we understand based on fund outreach that funds are generally moving away from the use of fees to manage short-term trading risk, and we are not proposing that the use of fees be expanded in light of this, as well as the potential operational complexity that could accompany the use of fees.[724] We are not proposing that funds be permitted to impose redemption gates because 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 in money market funds. For example, while there is some evidence of a first-mover advantage among money market funds during the financial crisis, there is currently no matching evidence of first-mover advantage among funds that are not money market funds.[725]

The Commission considered, but ultimately decided against, proposing to exclude certain types of funds from proposed rule 22e–4. For example, the proposed rule could have carved out exemptions for funds with investment strategies that historically have entailed relatively little liquidity risk, or funds with relatively low assets. We are not proposing to exclude any subset of open-end funds, other than money market funds, from the scope of the proposed rule. As discussed above, even funds with investment strategies that historically have involved little liquidity risk could experience liquidity stresses in certain environments.[726] And 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.[727] The proposed program requirement is meant to permit a fund to customize and calibrate its liquidity risk management program to reflect the liquidity risks that 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, are appropriate to manage the actual liquidity risks facing a particular fund.

We considered multiple alternatives to the proposed requirements regarding a fund's classification of the liquidity of its portfolio assets. Under proposed rule 22e–4, a fund would be required to classify and review the liquidity of each of the fund's positions in a portfolio asset (or a portion of a fund's position in a portfolio asset) based on the number of days within which a fund's position in a particular portfolio asset could be converted to cash at a price that does not materially affect the value of that asset assessed immediately prior to sale, and considering certain specified factors.[728] Instead of these proposed requirements, we could have codified a definition of illiquid asset that reflects the current 15% guideline. Because we believe most funds generally adhere to the 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, we understand, based on staff outreach, that the 15% guideline has generally caused funds to limit their exposures to particular types of securities that generally cannot be sold or sold quickly and that the Commission and staff have indicated are often illiquid, depending on the facts and circumstances. We also understand that it is not uncommon for a fund to consider very few (or none) of its portfolio assets to be 15% guideline assets. Given the parameters of the 15% guideline, we also do not believe that this approach would require the typical fund to consider the liquidity characteristics of a significant percentage of its portfolio.[729] Thus, this approach alone would not have provided as comprehensive a view of the relative liquidity of portfolio assets as our proposed approach, or strengthen funds' ability to meet redemption obligations and mitigate dilution of the interests of shareholders.

Instead of proposing an approach whereby a fund would be required to assign each portfolio position to one of several liquidity categories, we could have proposed a classification framework under which a fund would simply be required to classify a portfolio position as ''liquid'' or ''illiquid,'' based on a number of specified factors. As discussed above, Commission staff has found, based on outreach to a variety of funds, that funds with relatively comprehensive liquidity classification procedures tend to view the liquidity of their portfolio positions in terms of a liquidity spectrum rather than simply as wholly liquid or wholly illiquid. This ''spectrum''-based approach to liquidity can greatly facilitate a fund's portfolio manager in engaging in portfolio construction that takes into account potential varying liquidity needs of the fund over time. Our proposed approach to liquidity classification reflects our understanding that funds commonly evaluate assets' liquidity across such a liquidity spectrum, as opposed to making a binary determination of whether an asset is liquid or illiquid. It also more accurately conveys to investors that liquidity tends to be a matter of degree.

We also considered several alternatives to the proposed requirement for each fund to determine its three-day liquid asset minimum and limit its acquisition of less liquid assets in contravention of that minimum. We instead could have proposed that each fund be required to determine a minimum buffer level of cash (or cash equivalents) that it would hold, or alternatively, to determine a minimum level of one-day liquid asset holdings. The cash buffer alternative would help ensure that a fund would be able to meet redemptions immediately, without the need to sell any portfolio assets. Likewise, a one-day liquid asset minimum requirement would help ensure that a fund would be able to meet redemptions within a very quick period, and could encourage a fund to hold a comparatively more liquid portfolio than the proposed three-day liquid asset minimum. But we believe that these options have a number of disadvantages. Namely, these options would not necessarily match a fund's liquidity needs with its redemption obligations, and could result in a fund being underinvested in assets that reflect the fund's investment strategy (and concurrent risks and performance potential).[730] We considered proposing a ''seven-day liquid asset minimum'' requirement—that is, requiring a fund to invest in a certain amount of assets that

[724] *See infra* paragraph accompanying note 777 for a discussion of why we are proposing swing pricing, instead of a framework involving purchase fees or redemption fees, to address potential dilution of existing shareholder interests when a fund encounters significant net purchases or net redemptions and for a discussion of the operational differences between swing pricing and purchase and redemption fees.

[725] *See* 2014 Money Market Fund Reform Adopting Release, *supra* note 85, at section III.A.1.

[726] *See supra* notes 123–125 and accompanying text.

[727] DERA Study, *supra* note 39, at pp. 16–24.

[728] *See* rule 22e–4(b)(2)(i)–(ii).

[729] *See supra* section III.C.4.

[730] We note above that if a fund's redemption practices require it to pay redeeming shareholders within a period shorter than three business days, we expect the fund would consider whether a specified portion of its three-day liquid asset minimum should consist of portfolio positions that are convertible to cash within a period shorter than three business days.

could be converted to cash within seven calendar days or less—which would correspond with a fund's redemption obligations under section 22(e) of the Act. However, we were concerned that a seven-day liquid asset minimum would not provide sufficient minimum liquidity given the regulatory requirements and disclosures that require most funds to meet redemptions obligations in shorter time periods and market practices that effectively require all funds to meet redemption requests within time periods shorter than seven calendar days.

We also considered proposing to require a standard level of three-day liquid asset minimum holdings for all funds. This alternative approach would have the advantage of being simple for investors to understand and our examination staff to verify. However, this alternative fails 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 proposed three-day liquid asset minimum requirement would promote consistency in funds' consideration of the factors relevant to their liquidity risk management, while also permitting flexibility in implementation, which we believe is appropriate in light of the significant diversity within the fund industry. This approach includes elements that would help our staff to ascertain that funds are indeed considering the required factors: Each fund would be required to maintain a written record of how its three-day liquid asset minimum was determined, as well as copies of materials submitted to the fund's board in connection with the board's approval of the three-day liquid asset minimum and reports provided to the board that review the adequacy of the fund's three-day liquid asset minimum.[731] And as discussed above, although a fund would be permitted to determine its own three-day liquid asset minimum under the proposed rule, we believe that the requirement for a fund to consider certain specified factors in determining its three-day liquid asset minimum would likely preclude a fund from concluding that zero holdings of three-day liquid assets would be appropriate.[732]

Instead of requiring funds to determine and invest their assets in compliance with a three-day liquid asset minimum, we could require funds to conduct stress tests of their own design relating to the extent the fund has liquid assets to cover possible levels of redemptions. This would have the benefit of permitting a fund flexibility in determining whether its portfolio liquidity profile is appropriate given its liquidity needs. Also, since the three-day liquid asset minimum requirement implicitly also involves the requirement for a fund to classify its portfolio assets' liquidity in a particular manner (since compliance with a fund's three-day liquid asset minimum would require knowing which assets are three-day liquid assets), not requiring funds to determine a three-day liquid asset minimum would permit a fund to not incur the costs associated with the proposed liquidity classification requirements. As discussed above, some funds already conduct stress testing incorporating the factors that a fund would be required to consider in assessing their liquidity risk and determining their three-day liquid asset minimum based on this assessment.[733] But, because the quality and comprehensiveness of funds' liquidity risk management currently varies significantly, we believe that requiring a certain set of factors to be considered in assessing and managing liquidity risk (including determining the fund's three-day liquid asset minimum) is important in reducing the risk that funds will be unable to meet their redemption obligations under the Investment Company Act and 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 three-day liquid asset minimum requirement.[734]

Finally, we considered proposing a liquidity risk management program requirement that would not incorporate a three-day liquid asset minimum requirement (or one of the alternatives to this requirement discussed in the preceding paragraphs). Under this alternative, a fund would be required to adopt and implement a liquidity risk management program, which would include the proposed requirements regarding a fund's classification of the liquidity of its portfolio assets (and related reporting and disclosure regarding its portfolio assets' liquidity) and the proposed requirements limiting investments in 15% standard assets, but a fund would not be required to establish a minimum level of three-day liquid assets. This alternative would have the benefit of permitting funds to have a large amount of flexibility in managing their liquidity risk. Although a fund would need to ensure that it is able to meet its redemption obligations and would be subject to the proposed limitations on investments in 15% standard assets, it would be subject to no other requirements regarding its portfolio liquidity. This would provide flexibility, for example, for a fund to adjust its liquidity profile very quickly in light of changing market conditions, whereas a fund subject to the three-day liquid asset minimum requirement might not be able to do so as quickly, to the extent the fund's board would be required to approve a change in the fund's three-day liquid asset minimum. It also would permit a fund to calibrate portfolio liquidity based on the factors the fund or its adviser considers appropriate, instead of the factors that the proposed rule would require a fund to consider in determining its three-day liquid asset minimum. To the extent that a fund's portfolio liquidity was not in line with investors' risk tolerances, investors could decide not to invest in the fund, based on information about the fund's portfolio liquidity reported on Form N–PORT.

We do not believe, however, that this alternative would adequately respond to primary goals of this rulemaking, that is, reducing the risks that funds will be unable to meet their redemption obligations and reducing potential dilution of non-redeeming shareholders. We believe that the three-day liquid asset minimum requirement is a critical element of the proposed liquidity risk management program requirement that is designed to provide investors with increased protections regarding how

[731] *See* proposed rule 22e–4(c)(2)–(3).

[732] *See supra* section III.C.3.a.

[733] *See supra* note 257 and accompanying text.

[734] We do note, however, that section 165(i)(2) of the Dodd-Frank Act obligates the Commission to specify certain stress testing requirements for certain large non-bank financial companies we regulate, including investment companies. *See supra note* 104 and accompanying text regarding initiatives to address the impact of open-end fund investment activities on investors and the financial markets.

fund portfolio liquidity is managed. As discussed above, we believe that the proposed three-day liquid asset minimum requirement would result in a portfolio liquidity standard that fosters consistency in funds' consideration of the factors relevant to their liquidity risk management, while simultaneously permitting flexibility in implementation.[735] While the board approval requirement associated with the three-day liquid asset minimum could add a layer of process if a fund wished to change its liquidity profile, we believe that this requirement is necessary because it would add independent oversight over funds' liquidity risk management.[736] Although we believe that reporting and disclosure regarding a fund's portfolio liquidity are important, we do not believe that they would be sufficient to promote a high quality of liquidity risk management across the fund industry because they would not necessarily require a fund to consider its portfolio liquidity in relation to its liquidity needs.

2. Swing Pricing

a. Requirements of Proposed Rule 22c–1(a)(3)

Under proposed rule 22c–1(a)(3), a fund (with the exception of a money market fund or ETF) would be permitted to establish and implement swing pricing policies and procedures that would, under certain circumstances, require the fund to use swing pricing to adjust its current NAV as an additional tool to lessen potential dilution of the value of outstanding redeemable securities caused by shareholder purchase or redemption activity. In order to use swing pricing under the proposed rule, a fund would be required to establish and implement swing pricing policies and procedures.[737] These policies and procedures must: (i) Provide that the fund will adjust its NAV by an amount designated as the ''swing factor'' once the level of net purchases or net redemptions from the fund has exceeded a specified percentage of the fund's net asset value known as the ''swing threshold''; [738] (ii) specify the fund's swing threshold, considering certain specified factors; [739] (iii) provide for the periodic review (at least annually) of the fund's swing threshold, considering certain specified factors; [740] (iv) specify how a swing factor that would be used to adjust the fund's NAV when the fund's swing threshold is breached, which determination must take into account certain specified factors.[741]

A fund's board, including a majority of the fund's independent directors, would be required to approve the fund's swing pricing policies and procedures (including the fund's swing threshold, and any swing factor upper limit specified under the fund's swing pricing policies and procedures), and any material change to these policies and procedures.[742] However, the board would be required to designate the fund's investment adviser or officers responsible for administration of the fund's swing pricing policies and procedures and for determining a swing factor that would be used to adjust the fund's NAV when the fund's swing threshold is breached.[743]

A fund that adopts swing pricing policies and procedures also would be required to keep certain records, including a written copy of its swing pricing policies and procedures,[744] and records of support for each computation of an adjustment to the fund's NAV based on these policies and procedures.[745] A fund that engages in swing pricing would be required to make certain disclosures and reflect its use of swing pricing in its financial statements.[746]

b. Benefits

We believe proposed rule 22c–1(a)(3) would promote investor protection by providing funds with a tool to reduce the potentially dilutive effects of shareholder purchase or redemption activity. Rule 22c–1 under the Investment Company Act, the ''forward pricing'' rule, requires a fund to price its shares based on the current market prices of its portfolio assets next computed after receipt of an order to buy or redeem shares.[747] When a fund trades portfolio assets in order to meet purchases or redemptions, the fund's current NAV on the trade date would reflect any changes to the value of the fund's assets that occurs as a result of trading on that day. But as discussed above, when a fund trades portfolio assets in order to satisfy purchase or redemption requests, certain costs associated with this trading activity currently may not be taken into account in the price that the purchasing or redeeming shareholder receives for his or her fund shares.[748] The NAV of the fund shares held by existing shareholders, however, will eventually reflect all of these costs, including those that were not passed on to the purchasing or redeeming shareholders.[749] Swing pricing provides funds with an additional tool—as a supplement to the pricing conventions required by the forward pricing rule—to pass estimated near-term costs stemming from shareholder purchase or redemption activity on to the shareholders associated with that activity.[750] Swing pricing thus could lessen dilution of existing shareholders and limit redemptions motivated by a potential first-mover advantage.

We recognize that swing pricing may involve potential disadvantages to funds as well as potential advantages, and the provisions of proposed rule 22c–1(a)(3) are designed to maximize the relative advantages and respond to potential concerns associated with swing pricing. While swing pricing may reduce dilution at the fund level and could act as a deterrent against redemptions motivated by any first-mover advantage, the potential disadvantages to swing pricing (described in more detail below) include increased performance volatility and the fact that the precise impact of swing pricing on particular purchase or redemption requests would not be known in advance and thus may not be fully transparent to investors. In addition, the swing factor used by a fund on a particular day may not capture all costs incurred by the fund resulting from purchases or redemptions that day.

Commission rules and guidance do not currently address the ability of a fund to use swing pricing to mitigate potential dilution of fund shareholders, and the Commission's current valuation guidance could raise questions about making such NAV adjustment.[751] The proposed swing pricing rule would provide the regulatory framework that a fund would apply to adjust its NAV in order to effectively pass on estimated trading costs to purchasing or redeeming shareholders. The proposed rule would require a fund that conducts swing pricing to do so in accordance with policies and procedures and other restrictions designed to promote all shareholders' interests.[752] Because we

[735] *See supra* section III.C.3.

[736] *See supra* section III.D.1.

[737] Proposed rule 22c–1(a)(3)(i).

[738] Proposed rule 22c–1(a)(3)(i)(A).

[739] Proposed rule 22c–1(a)(3)(i)(B).

[740] Proposed rule 22c–1(a)(3)(i)(C).

[741] Proposed rule 22c–1(a)(3)(i)(D).

[742] Proposed rule 22c–1(a)(3)(ii)(A).

[743] Proposed rule 22c–1(a)(3)(ii)(B).

[744] Proposed rule 22c–1(a)(3)(iii).

[745] Proposed amendment to rule 31a–2(a)(2).

[746] *See* proposed amendments to Items 11, 13 and 26 of Form N–1A and proposed amendments to Regulation S–X.

[747] *See* rule 22c–1(a).

[748] *See supra* notes 410–413 and accompanying text.

[749] *See id.*

[750] *See supra* paragraph accompanying note 424.

[751] *See supra* note 423 and accompanying text.

[752] *See supra* note 424 and accompanying text.

cannot prospectively measure the extent to which the swing pricing policies and procedures that a fund may adopt would mitigate potential dilution, we are unable to quantify the total potential benefits discussed in this section.[753] However, analysis by fund groups of their funds domiciled in regions that allow swing pricing indicates that investor dilution is significantly reduced through swing pricing for some funds.[754]

c. Costs

A primary cost of implementing swing pricing is an increase in fund return volatility. The implementation of swing pricing also could increase tracking error relative to a fund's benchmark. However, the impact of swing pricing on volatility and tracking error would decrease as a function of time: For example, the impact of swing pricing on daily return volatility and tracking error would likely be much greater than the impact on monthly volatility and tracking error. The use of ''partial'' swing pricing also lessens the impact on volatility and tracking error. When deciding whether or not to implement swing pricing, a fund would have to weigh the cost of increased volatility and tracking error (along with the other costs discussed below) against the previously-discussed benefits of swing pricing.

In addition, a swing pricing regime that uses a fund's daily net purchases or net redemptions to determine when the fund will adjust its NAV could create costs for fund investors. For example, an investor who purchases fund shares on a day when a fund adjusts its NAV downward will pay less to enter the fund than if the fund had not adjusted its NAV on that day. However, investors would not be able to purposefully take advantage of this lower purchase price without knowledge of contemporaneous intraday flows, which funds do not publicly disclose. Further, we believe that investors who purchase shares on a day that a fund adjusts its NAV downward would not create dilution for non-redeeming shareholders. Shareholders' purchase activity would provide liquidity to the fund, which could reduce the fund's liquidity costs and thereby could also decrease the swing factor. This could potentially help redeeming shareholders to receive a more favorable redemption price than they otherwise would have if there had been less purchase activity on that day, but would not affect the interests of non-redeeming investors. Similarly, adjusting a fund's NAV when the fund's daily net redemptions cross a certain threshold, regardless of the size of the component shareholder redemptions that comprise the daily net redemptions, could produce costs to individual redeeming shareholders whose redemptions alone would not result in redemption-related costs to the fund. For instance, a small investor's redemption request would not create any significant liquidity costs for the fund on its own, but if this investor were to redeem on the same day that the fund's net redemptions are high, his or her redemption proceeds would be reduced by the NAV adjustment.

We are not proposing to exempt certain investors from the NAV adjustments permitted under proposed rule 22c–1(a)(3). We believe that the costs of exempting certain investors from the NAV adjustment could be significant, particularly the operational costs that we believe could result from the relatively complex process of applying the NAV adjustment only to some investors and not to others. Exempting small investors from the NAV adjustment also may not be beneficial to a fund because such exemption could lead to large investors engaging in gaming behavior—that is, structuring their investments in funds using multiple small accounts—in order to use the exemption. This could contravene the purpose of the exemption and be costly for funds to detect.

Each fund that chooses to adopt swing pricing policies and procedures pursuant to proposed rule 22c–1(a)(3) would incur one-time costs to develop and implement the policies and procedures, as well as ongoing costs relating to administration of the policies and procedures. Those costs will directly impact the fund and may indirectly impact fund investors if the fund passes along its costs to investors through increased fees. As discussed above, while U.S. registered funds do not currently use swing pricing to mitigate potential dilution, certain foreign funds affiliated with U.S. fund families currently do use swing pricing.[755] U.S. registered funds in fund complexes that also include foreign-domiciled funds that use swing pricing may incur relatively lower costs to implement swing pricing policies and procedures pursuant to the proposed rule. These funds may only need to modify current swing pricing policies, procedures, and systems used for foreign-domiciled funds to comply with proposed rule 22c–1(a)(3), instead of developing them from scratch.

Just as the costs associated with proposed rule 22e–4 could depend largely on the level of liquidity risk facing the fund, as well as the sources of the fund's liquidity risk, the costs of implementing swing pricing policies and procedures likewise could vary depending on these factors. As discussed above, there are multiple ways in which the costs associated with classifying portfolio positions' liquidity and assessing a fund's liquidity risk could vary based on a fund's individual risks and circumstances.[756] To determine a fund's swing threshold, proposed rule 22c–1(a)(3) would require a fund to consider certain of the factors required to be considered as part of the liquidity risk assessment required under proposed rule 22e–4.[757] Therefore, the costs associated with developing policies and procedures for determining the swing threshold could also vary according to similar factors that could cause differences in the costs to funds associated with proposed rule 22e–4.[758]

Our staff estimates that the one-time costs necessary to establish and implement swing pricing policies and procedures pursuant to proposed rule 22c–1(a)(3) would range from $1.3 million to $2.25 million[759] per fund

[753] There is no database currently available that identifies whether a foreign-domiciled fund uses swing pricing or the structure of a fund's swing pricing program (*e.g.*, full swing pricing versus partial swing pricing).

[754] *See* BlackRock Swing Pricing Paper, *supra* note 412.

[755] *See supra* notes 417–420 and accompanying text.

[756] *See supra* section IV.C.1.c.

[757] *See* proposed rule 22c–1(a)(3)(i)(B). Specifically, the requirement for a fund to consider: (i) The size, frequency, and volatility of historical purchases and redemptions of fund shares during normal and stressed periods, (ii) the fund's investment strategy and the liquidity of the fund's portfolio assets, and (ii) the fund's holdings of cash and cash equivalents, as well as borrowing arrangements and other funding sources overlap with certain of the proposed liquidity risk assessment factors. *See* proposed rule 22e–4(b)(iii)(A), (B), and (D).

[758] *See supra* section IV.C.1.c.

[759] These cost estimates are based in part on the staff's recent estimates of the one-time systems costs associated with implementing the fees and gates provisions of the 2014 amendments to rule 2a–7 under the 1940 Act. *See* 2014 Money Market Fund Reform Adopting Release, *supra* note 85, at section III.A.5.b. Although the substance and content of systems associated with establishing and implementing swing pricing policies and procedures would be different from the substance and content of systems associated with implementing the rule 2a–7 fees and gates provisions, the one-time costs associated with establishing and implementing swing pricing policies and procedures, like the one-time costs associated with the fees and gates provisions, would entail: Drafting relevant procedures; planning, coding, testing, and installing relevant system modifications; integrating and implementing relevant procedures; and preparing training materials and administering training sessions for

Continued

complex, depending on the particular facts and circumstances applicable to the funds comprising the fund complex.[760] These estimated costs are attributable to the following activities, as applicable to each of the funds within the complex that adopts swing pricing policies and procedures: (i) Developing swing pricing policies and procedures that include all of the elements required under the proposed rule,[761] as well as policies and procedures relating to the recordkeeping requirements associated with swing pricing; [762] (ii) planning, coding, testing, and installing any system modifications for adjusting the fund's NAV pursuant to the fund's swing pricing policies and procedures; (iii) integrating and implementing the fund's swing pricing policies and procedures, as well as policies and procedures relating to the financial reporting and recordkeeping requirements associated with swing pricing; (iv) preparing training materials and administering training sessions for staff in affected areas; and (v) board approval of the fund's swing pricing policies and procedures.

We anticipate that, depending on the personnel (and/or third party service providers) involved in the activities associated with establishing and implementing swing pricing policies and procedures, certain of the estimated one-time costs associated with these activities could be borne by the fund, and others could be borne by the adviser. This cost allocation would depend on the facts and circumstances of a particular fund's swing pricing policies and procedures, 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 be borne by fund shareholders in the form of fund operating expenses.

Staff estimates that, on average, a fund complex that includes funds that adopt swing pricing policies and procedures pursuant to proposed rule 22c–1(a)(3) would incur ongoing annual costs that range from 5% to 15% of the one-time costs necessary to establish and implement swing pricing policies and procedures pursuant to proposed rule 22c–1(a)(3).[763] Thus, staff estimates that a fund complex that includes funds that adopt swing pricing policies and procedures would incur ongoing annual costs associated with proposed rule 22c–1(a)(3) that would range from $65,000 to $337,500.[764] These estimated costs are attributable to the following activities, as applicable to each of the funds within the complex that adopts swing pricing policies and procedures: (i) Costs associated with monitoring whether the fund's net purchases or net redemptions cross the swing threshold (which could include, to the extent a fund determines appropriate, costs associated with obtaining interim feeds of flows from its transfer agent or distributor in order to reasonably estimate its daily net flows) (implicated by proposed rule 22c–1(a)(3)(i)(A)); (ii) adjusting the fund's NAV when the fund's net purchases or net redemptions cross the swing threshold, including costs associated with determining a swing factor that would be used to adjust the fund's NAV when the fund's swing threshold is breached (proposed rule 22c–1(a)(3)(i)(A), proposed rule 22c–1(a)(3)(i)(D)); (iii) periodic review of the fund's swing threshold (proposed rule 22c–1(a)(3)(i)(C)); (iv) systems maintenance; (iv) additional staff training; (v) board approval of any material changes to the program (proposed rule 22c–1(a)(3)(ii)(A)); and (vi) recordkeeping (proposed rule 22c–1(a)(3)(iii), proposed amendments to rule 31a–2(a)(2)).[765]

A fund would be permitted, but not required, to establish and implement swing pricing policies and procedures under proposed rule 22c–1(a)(3), and for purposes of this cost analysis, staff estimates that 167 fund complexes would adopt swing pricing policies and procedures. In developing this estimate, staff assumed that complexes including certain mutual fund strategies (high-yield bond funds, world bond funds (including emerging market debt funds), multi-sector bond funds, state municipal funds, alternative strategy funds, and emerging market equity funds) would be relatively more likely to adopt swing pricing policies and procedures, and of complexes with funds following these strategies, 75% would actually adopt swing pricing policies and procedures.[766] Staff estimates that the aggregate one-time costs for fund complexes to establish and implement swing pricing policies

staff in affected areas. *See id.* However, in estimating the one-time costs associated with establishing and implementing swing pricing policies and procedures, staff has adjusted the estimated one-time systems costs associated with implementing the fees and gates provisions to reflect that the estimated costs associated with implementing the fees and gates provisions include costs to be incurred by the fund and others in the distribution chain (including transfer agents, accountants, custodians, and intermediaries), whose services would be needed if a fund were to impose a fee or gate, whereas we anticipate that the requirements associated with establishing and implementing swing pricing policies and procedures would be borne primarily by a fund complex and not by others in the distribution chain.

We note that the estimated one-time systems costs associated with implementing the fees and gates provisions of the 2014 amendments to rule 2a–7 are generally similar to the proposed estimated one-time systems costs associated with implementing the floating NAV provisions of the 2014 rule 2a–7 amendments. *See id.* at section III.B.8.a. However, the proposed estimated one-time systems costs associated with implementing the floating NAV provisions were adjusted downward at adoption, to account for certain tax considerations specific to the floating NAV reforms. Thus, staff believes that the one-time costs associated with the fees and gates provisions would provide a closer analogue to the estimated costs associated with establishing and implementing swing pricing policies and procedures than the one-time costs associated with the floating NAV provisions.

[760] This estimate assumes that each fund would not bear all of the estimated 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 that adopts swing pricing policies and procedures.

[761] Proposed rule 22c–1(a)(3)(i).

[762] Proposed rule 22c–1(a)(3)(iii); proposed amendment to rule 31a–2(a)(2).

[763] These cost estimates are based in part on the staff's recent estimates of the ongoing costs associated with implementing the fees and gates provisions of the 2014 amendments to rule 2a–7 under the 1940 Act. *See supra* note 759 (discussing why staff believes that the costs associated with the fees and gates provisions could be useful to estimate the costs associated with establishing and implementing swing pricing policies and procedures).

[764] This estimate is based on the following calculations: 0.05 × $1,300,000 = $65,000; 0.15 × $2,250,000 = $337,500.

[765] We anticipate that, depending on the personnel (and/or third party service providers) involved in the activities associated with administering a fund's swing pricing policies and procedures, certain of the estimated ongoing costs associated with these activities could be borne by the fund, and others could be borne by the adviser. *See* paragraph following *supra* note 762.

[766] In developing the estimate that 167 fund complexes would adopt swing pricing policies and procedures, the staff assumed that the percentage of fund complexes that includes high-yield bond funds, world bond funds (including emerging market debt funds), multi-sector bond funds, state municipal funds, alternative strategy funds, and emerging market equity funds, as a fraction of all fund complexes, is the same as the percentage of all mutual funds (excluding money market funds) that these strategies represent. The actual number of fund complexes that includes these selected strategies could be higher or lower than the number calculated using this assumption. 241 high yield bond mutual funds + 347 world bond mutual funds (estimate includes emerging market bond funds) + 139 multi-sector bond mutual funds + 322 state municipal mutual funds + 376 alternative strategy funds that are equity funds (alternative strategy funds that are bond funds are included in our estimates of the number of bond mutual funds) + 469 emerging market equity mutual funds = 1,894 funds with strategies that staff assumed would be relatively more likely to adopt swing pricing policies and procedures. 1,894 funds with selected strategies ÷ 7,395 mutual funds (excluding money market funds) = approximately 25.6%. 0.256 × 867 fund complexes = approximately 222 fund complexes. Assuming that 75% of these fund complexes would actually adopt swing pricing policies and procedures, 0.75 × 222 fund complexes = approximately 167 fund complexes. These estimates are based on figures included in the 2015 ICI Fact Book. *See* 2015 ICI Fact Book, *supra* note 3.

and procedures, and to comply with the recordkeeping requirements of the proposed amendments to rule 31a–2(a)(2) and the financial reporting requirements in Form N–1A and Regulation S–X, would be approximately $296 million.[767] In addition, staff estimates that the annual aggregate costs associated with the proposed regulations relating to swing pricing would be approximately $34 million.[768]

d. Effects on Efficiency, Competition, and Capital Formation

Proposed rule 22c–1(a)(3) would permit a fund, under certain circumstances, to adjust its NAV to effectively pass on costs stemming from shareholder purchase or redemption activity to the shareholders associated with that activity. Adjusting a fund's NAV in this way could reduce dilution to existing shareholders arising from trading costs. We therefore believe that the proposed rule could increase the efficiency of cost allocation among shareholders of funds that adopt swing pricing policies and procedures, provided that a fund's swing threshold and swing factor are appropriately calculated.[769] If investors believe swing pricing to be valuable, funds that decide to implement swing pricing will be at a competitive advantage. Fund complexes currently using swing pricing in other domiciles may be able to implement swing pricing more quickly and more effectively.

We anticipate that proposed rule 22c–1–1(a)(3) could indirectly foster capital formation by bolstering investor confidence. Investors may be more inclined to invest in funds if they understand that funds will be able to use swing pricing to prevent the purchase or redemption activity of certain investors from diluting the interests of other investors (particularly long-term investors, who represent the majority of fund shareholders). To the extent that swing pricing preserves investment returns to investors, particularly long-term investors,[770] this could incentivize investment in funds that use swing pricing. If proposed rule 22c–1(a)(3) enhances investor confidence in funds, investors are more likely to invest in funds, thus making additional assets available for investment in the capital markets. On the other hand, investors could be discouraged from investing in funds that use swing pricing if swing pricing produces increased performance volatility, which could increase tracking error, and could make a fund's short-term performance appear relatively poor compared to other funds and the fund's benchmark. Because we do not have the information necessary to determine how investors will perceive swing pricing, or how they will evaluate the relative benefits or detriments of investing in funds that use swing pricing, we are unable to draw conclusions about the precise effects of proposed rule 22c–1(a)(3) on capital formation. However, to the extent that investors perceive swing pricing improves fund performance by decreasing investor dilution, capital formation could be encouraged.

e. Reasonable Alternatives

The following discussion addresses significant alternatives to proposed rule 22c–1(a)(3). More detailed alternatives to the individual elements of the proposed rule are discussed in detail above, and we have requested comment on these alternatives.[771]

Instead of permitting, but not requiring, funds to adopt swing pricing policies and procedures under proposed rule 22c–1(a)(3), we could have proposed a rule that would require all funds to adopt swing pricing policies and procedures. This alternative approach would have the benefit of establishing a uniform regulatory framework to prevent potential shareholder dilution. But because funds differ notably in terms of their particular circumstances and risks, as well as with respect to the tools funds use to manage risks relating to liquidity and shareholder purchases and redemptions, we decided to propose a rule that would permit swing pricing as a voluntary tool for funds. Our chosen approach would allow funds to weigh the advantages of swing pricing (*e.g.,* improved allocation of trading costs[772]) against potential disadvantages (*e.g.,* the potential for swing pricing to increase the volatility of a fund's NAV in the short term[773]).

While proposed rule 22c–1(a)(3) envisions partial swing pricing (that is, a NAV adjustment would not be permitted unless net purchases or redemptions exceed a threshold set by the fund), the Commission instead could have proposed a rule that would permit full swing pricing (that is, a NAV adjustment would be permitted any time the fund experiences net purchases or net redemptions). Full swing pricing would result in *any* costs associated with purchases or redemptions being passed along to the shareholders whose actions created those costs, whereas the partial swing pricing contemplated by the proposed rule would only allocate trading costs to purchasing or redeeming shareholders when net purchases or net redemptions exceed the fund's swing threshold. Nevertheless, we believe that the partial swing pricing alternative is, on balance, preferable to the full swing pricing option. We expect that partial swing pricing, as opposed to full swing pricing, would reduce any performance volatility potentially associated with swing pricing.[774] Also, the use of partial swing pricing recognizes that purchases or redemptions below a certain threshold might not require a fund to trade portfolio assets, and therefore a NAV adjustment might not be appropriate if purchases or redemptions would not result in costs associated with asset purchases or sales (in which case, a NAV adjustment could unfairly penalize purchasing or redeeming shareholders).[775]

We considered permitting funds to use swing pricing only to adjust their NAV downward in the event that net redemptions exceeded a particular threshold, as there may be more significant issues regarding potential dilution for non-redeeming shareholders in connection with shareholder redemptions, because funds are obligated to satisfy redemption requests pursuant to section 22(e) of the Act. In this regard, we note that unlike redemptions, funds may reserve the right to decline purchase requests. For example, a fund may decline purchase requests from shareholders who engaged in frequent trading, and it also may decline large purchase requests that would negatively impact the fund.

[767] Because staff is unable to estimate how many fund complexes would incur one-time costs on the low end of the estimated range versus the high end of the estimated range, this estimate is based on the assumption that each fund complex would incur one-time costs of $1,775,000, which represents the middle of the range of estimated one-time costs ($1,300,000 + $2,250,000 = $3,550,000; $3,550,000 ÷ 2 = $1,775,000). 167 fund complexes × $1,775,000 = $296,425,000.

[768] Because staff is unable to estimate how many fund complexes would incur ongoing costs on the low end of the estimated range versus the high end of the estimated range, this estimate is based on the assumption that each fund complex would incur ongoing costs of $201,250, which represents the middle of the range of estimated ongoing costs ($65,000 + $337,500 = $402,500; $402,500 ÷ 2 = $201,250). 167 fund complexes × $201,250 = $33,608,750.

[769] *See supra* notes 748–749 (discussing cost allocation among shareholders with respect to funds that do not use swing pricing).

[770] *See supra* notes 440–441 and accompanying text.

[771] See *supra* Requests for Comment in sections III.F.1.a, III.F.1.b, III.F.1.c, III.F.1.d, III.F.1.e, III.F.1.f, III.F.1.g, III.F.2.d, and III.F.3.

[772] *See supra* sections III.F.1.a, III.F.1.c, III.F.1.e.

[773] *See supra* paragraphs accompanying note 446.

[774] *See supra* paragraph accompanying notes 447–449.

[775] *See supra* note 449 and accompanying text.

However, we are proposing to permit funds to use swing pricing to adjust their NAV upward or downward because we believe that swing pricing could be a useful tool in mitigating dilution associated with shareholder purchase activity as well.

We also considered limiting the swing factor, but we recognize that there could be circumstances in which limiting the swing factor would prevent a fund from capturing the costs associated with purchase or redemption activity in a fund.[776] We believe it is appropriate to provide flexibility to funds to determine the appropriate swing factor that takes into account estimated trading costs. As part of their swing pricing policies and procedures, funds may decide to limit the swing factor.

Lastly, instead of proposing to permit funds to use swing pricing, we considered clarifying that a fund (other than a money market fund) could impose a purchase fee or redemption fee to address potential dilution.[777] Swing pricing and purchase and redemption fees could pass on transaction-related costs to transacting shareholders. Purchase fees and redemption fees, as opposed to swing pricing, would have the benefit of being simple for investors to understand, and they would not produce the same volatility and tracking error concerns as swing pricing. However, on balance we believe that the operational costs and difficulty of imposing a fee would be significantly higher than those associated with swing pricing. Implementing a fee requires coordination with the fund's service providers, which could entail operational complexity. On the other hand, we anticipate that swing pricing would be simpler to implement than a fee because the NAV adjustment would occur pursuant to the fund's own procedures and would be factored into the process by which a fund strikes its NAV.

3. Disclosure and Reporting Requirements Regarding Liquidity Risk and Liquidity Risk Management

a. Proposed Disclosure and Reporting Requirements

We are proposing amendments to Form N–1A, Regulation S–X, proposed Form N–PORT, and proposed Form N–CEN to enhance fund disclosure and reporting regarding liquidity and redemption practices. Specifically, proposed amendments to Form N–1A would require a fund to disclose: (i) The number of days in which the fund will pay redemption proceeds to redeeming shareholders[778] and (ii) the methods the fund uses to meet redemption requests in stressed and non-stressed market conditions.[779] A fund also would be required to file as an exhibit to its registration statement any credit agreements for the benefit of the fund.[780] Regarding swing pricing, a fund would be required to disclose in Form N–1A a statement as to whether the fund uses swing pricing, and an explanation of the circumstances under which it will use swing pricing and the effects of using swing pricing.[781] The NAV reported on a fund's financial statements would reflect swing pricing, if applicable. Proposed amendments to proposed Form N–PORT would require a fund to disclose: (i) For each portfolio asset, whether that security is a 15% standard asset;[782] (ii) the fund's three-day liquid asset minimum;[783] and (iii) for each of the fund's positions in a portfolio asset, the liquidity classification of that position as determined pursuant to proposed rule 22e–4(b)(2)(i).[784] Finally, proposed amendments to proposed Form N–CEN would require a fund to disclose certain information regarding the use of lines of credit, interfund borrowing and lending, and swing pricing.[785] We have also proposed amendments to Form N–CEN that would require an ETF to report whether it required that an authorized participant post collateral to the ETF or any of its designated service providers in connection with the purchase or redemption of ETF shares.[786]

b. Benefits

The proposed disclosure and reporting requirements would 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 quite varied in content and comprehensiveness.[787] 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 assets. A fund is also not currently required to disclose information about liquidity risk management practices such as the use of lines of credit. 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 proposed disclosure and reporting requirements would increase shareholder understanding of particular funds' liquidity-related risks and redemption policies. This in turn would assist investors in making investment choices that better match their risk tolerances.

We note that, while proposed Form N–PORT and proposed Form N–CEN are designed primarily to assist the Commission and its staff, we believe that the information in these proposed forms (including the liquidity-related information proposed to be included in these forms) also would be valuable to investors.[788] In particular, we believe that both sophisticated institutional investors and third-party users that provide services to investors may find the proposed liquidity-related information to be useful. And we believe that individual investors would benefit indirectly from the information collected on reports on Form N–PORT, through analyses prepared by third-party service providers, and through enhanced Commission monitoring and oversight of the fund industry.

The liquidity-related information that funds would be required to provide on proposed Form N–PORT and proposed Form N–CEN would enhance investor protection by improving the Commission's ability to monitor funds' liquidity using relevant and targeted data. This monitoring would permit us to analyze liquidity trends in individual funds, and among certain types of funds and the fund industry as a whole, as well as to better understand funds' liquidity risk management practices. As

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[776] *See supra* paragraph accompanying notes 502–504.

[777] As discussed above, funds are currently permitted under rule 22c–2 to impose redemption fees under certain circumstances. *See supra* notes 421–422 and accompanying text; *see also* Rule 22c–2 Adopting Release, *supra* note 421 (noting that the redemption fee permitted under rule 22c–2 ''is intended to allow funds to recoup some of the direct and indirect costs incurred as a result of short-term trading strategies, such as market timing'').

[778] Proposed Item 11(c)(7) of Form N–1A.

[779] Proposed Item 11(c)(8) of Form N–1A.

[780] Proposed Item 28(h) of Form N–1A.

[781] Proposed Item 6(d) of Form N–1A.

[782] Proposed Item C.7 of proposed Form N–PORT.

[783] Proposed Item B.7 of proposed Form N–PORT.

[784] Proposed Item C.13 of proposed Form N–PORT. If a fund were to determine that different portions of a position in a particular asset would receive different liquidity classifications pursuant to proposed rule 22e–4(b)(2)(i) (*see supra* paragraph accompanying note 172), the fund would be required to indicate the dollar amount of that position attributable to each classification.

[785] Proposed Item 44 of proposed Form N–CEN.

[786] Proposed Item 60g of proposed Form N–CEN.

[787] *See supra* section III.G.1.a.

[788] *See* Investment Company Reporting Modernization Release, *supra* note 104, at sections IV.B.b, IV.E.b.

discussed in our recent proposal to modernize investment company reporting, the information we receive on these reports would facilitate the oversight of funds and would assist the Commission, as the primary regulatory of such funds, to better effectuate its mission to protect investors, maintain fair, orderly, and efficient markets, and facilitate capital formation.[789]

Because we cannot predict the extent to which the proposed requirements would enhance investors' awareness of funds' portfolio liquidity and liquidity risk, or that this enhanced awareness would influence investors' investments in certain funds, we are unable to quantify the potential benefits discussed in this section.

c. Costs

Funds would incur one-time and ongoing annual costs to comply with the proposed disclosure and reporting requirements regarding liquidity and shareholder redemption practices.

We estimate that the one-time costs to comply with the proposed amendments to Form N–1A would be approximately $637 per fund (plus printing costs).[790] We estimate that each fund would incur an ongoing cost associated with compliance with the proposed amendments to Form N–1A of approximately $80 [791] each year to review and update the proposed disclosure regarding swing pricing and redemptions.

The proposed amendments to proposed Form N–PORT would require funds to report on Form N–PORT the liquidity classification of each portfolio asset position (or portion of a position in a particular asset), and we estimate that the average one-time compliance costs associated with this reporting would be $15,330 per fund.[792] Furthermore, we estimate 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.[793] Assuming that 35% of funds (3,057 funds) would choose to license a software solution to file reports on Form N–PORT in house,[794] we estimate an upper bound on the initial annual costs to file the additional information associated with the proposed amendments for funds choosing this option of $780 per fund [795] with annual ongoing costs of $260 per fund.[796] We further assume that 65% of funds (5,677 funds) would 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,[797] and we estimate an upper bound on the initial costs to file the additional information associated with the proposed amendments for funds choosing this option of $1,040 per fund [798] with annual ongoing costs of $130 per fund.[799]

Likewise, compliance with the proposed amendments to proposed Form N–CEN would involve ongoing costs as well as one-time costs. We estimate 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 estimate that the one-time and ongoing annual compliance costs associated with providing additional responses to Form N–CEN as a result of the proposed amendments would be approximately $160 per fund.[800]

Based on these estimates, staff further estimates that the total one-time costs to comply with the proposed disclosure and reporting requirements would be

[789] *See id.*

[790] This estimate is based on the following calculation: 2 hours (1 hour to update registration statement to include swing pricing-related disclosure statements + 1 hour to update registration statement disclosure about redemption procedures and file credit agreements as exhibits, if applicable) × $318.50 (blended rate for a compliance attorney ($334) and a senior programmer ($303)) = $637. 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; (ii) the methods the fund uses to meet redemption requests in stressed and non-stressed market conditions; and (iii) if the fund uses swing pricing, an explanation of the circumstances under which it will use swing pricing and the effects of using swing pricing. This figure also includes the costs we estimate for each fund to file any applicable credit agreements as exhibits to the fund's registration statement. The costs associated with these activities are all paperwork-related costs and are discussed in more detail *infra* at section V.G.

[791] This estimate is based on the following calculations: 0.25 hours (⅛ hour to update swing pricing-related disclosure statements + ⅛ hour to update disclosures about redemption procedures) × $318.50 (blended hourly rate for a compliance attorney ($334) and a senior programmer ($303)) = $79.63.

[792] This estimate is based on the following calculation: (i) Project planning and systems design (24 hours × $260 (hourly rate for a senior systems analyst) = $6,240) and (ii) systems modification integration, testing, installation and deployment (30 hours × $303 (hourly rate for a senior programmer) = $9,090). $6,240 + $9,090 = $15,330. Estimates for drafting, integrating, implementing policies and procedures are addressed in the discussion of proposed 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 would incorporate the information that would be required under proposed Item C.13. 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 would be only incrementally affected by compliance with proposed Item C.13 to proposed Form N–PORT, and thus proposed Item C.13 does not affect our previous estimates of these costs.

[793] There were 8,734 open-end funds (excluding money market funds, and including ETFs) as of the end of 2014. *See* 2015 ICI Fact Book, *supra* note 3, at 177, 184.

[794] This assumption tracks the assumption made in the Investment Company Reporting Modernization Release that 35% of funds would choose to license a software solution to file reports on Form N–PORT. *See* Investment Company Reporting Modernization Release, *supra* note 104, at nn.658–659 and accompanying text.

[795] This estimate is based upon the following calculations: $780 in internal costs = ($780 = 3 hours × $260 (blended hourly rate for senior programmer ($303), senior database administrator ($312), financial reporting manager ($266), senior accountant ($198), intermediate accountant ($157), senior portfolio manager ($301), and compliance manager ($283)). We do not anticipate any change to external annual costs as a result of the proposed 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.

[796] This estimate is based upon the following calculations: $260 in internal costs ($260 = 1 hour × $260 (blended hourly rate for senior programmer ($303), senior database administrator ($312), financial reporting manager ($266), senior accountant ($198), intermediate accountant ($157), senior portfolio manager ($301), and compliance manager ($283)). We do not anticipate any change to external annual costs as a result of the proposed amendments. *See infra* at section V.E.

[797] This assumption tracks the assumptions made in the Investment Company Reporting Modernization Release that 65% of funds would 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 Release, *supra* note 104, at nn.660–661 and accompanying text.

[798] This estimate is based upon the following calculations: $1,040 in internal costs ($1,040 = 4 hours × $260 (blended hourly rate for senior programmer ($303), senior database administrator ($312), financial reporting manager ($266), senior accountant ($198), intermediate accountant ($157), senior portfolio manager ($301), and compliance manager ($283)). We do not anticipate any change to external annual costs as a result of the proposed amendments.

[799] This estimate is based upon the following calculations: $130 in internal costs ($130 = (0.5 hours × $260 (blended hourly rate for senior programmer ($303), senior database administrator ($312), financial reporting manager ($266), senior accountant ($198), intermediate accountant ($157), senior portfolio manager ($301), and compliance manager ($283)). We do not anticipate any change to external annual costs as a result of the proposed amendments.

[800] This estimate is based on the following calculation: 0.5 hour × $318.50 (blended hourly rate for a compliance attorney ($334) and a senior programmer ($303)) = $159.25. This figure incorporates the costs that we estimated associated with preparing the section of the fund's report on Form N–CEN that would incorporate the information that would be required under proposed Item 44. We do not estimate any additional costs in connection with proposed Item 60(g) of Form N–CEN because the proposed 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.F.

approximately $51 million for all funds that would file reports on proposed Form N–PORT in house [801] and approximately $96 million for all funds that would use a third-party service provider to prepare and file reports on proposed Form N–PORT.[802] In addition, staff estimates that the total ongoing annual costs associated with the proposed disclosure and reporting requirements would be approximately $1.5 million for all funds that would file reports on proposed Form N–PORT in house [803] and approximately $2.1 million for all funds that would use a third-party service provider to prepare and file reports on proposed Form N–PORT.[804]

We appreciate that the proposed amendments to proposed Form N–PORT would increase the amount and availability of public information about investment companies' portfolio positions and that more frequent portfolio disclosure could potentially harm fund shareholders by expanding the opportunities for professional traders to exploit this information by engaging in predatory trading practices, such as ''front-running'' and ''copycatting.'' [805] Both front-running and copycatting can reduce the returns of shareholders who invest in actively managed funds.[806] Thus, the proposed amendments to proposed Form N–PORT could entail costs to funds and market participants associated with any reduced profitability of funds that could result from the increase in publicly available information.[807] We believe that these costs cannot be separated from the overall costs to funds and market participants that could result from the increased disclosure of currently non-public information associated with Form N–PORT in its entirety.[808] The effects of the proposed liquidity-related disclosures are intertwined with the effects of the other proposed Form N–PORT disclosures. For example, any analyses of the liquidity-related disclosure proposed to be required could be affected by the enhanced reporting of information concerning the pricing of funds' investments, information on fund flows, and disclosure of additional information that could more clearly reveal the investment strategy and risk exposures of reporting funds (*e.g.,* information pertaining to derivatives and securities lending activities). The potential costs associated with the increased disclosure of currently non-public information on Form N–PORT are discussed in detail in our recent proposal to modernize investment company reporting.[809] This proposal also discusses the ways in which we have endeavored to mitigate these costs, including by proposing to maintain the status quo for the frequency and timing of disclosure of publicly available portfolio information.[810] While proposed Form N–PORT would be required to be filed monthly, it would be required to be disclosed quarterly and would not be made public until 60 days after the close of the period at issue. Because funds are currently required to disclose their portfolio investments quarterly (and this disclosure is made public with a 60-day lag), we believe that maintaining the status quo with regard to the frequency and the time lag of publicly available portfolio reporting would permit the Commission (as well as the fund industry generally) to assess the impact of the Form N–PORT filing requirement 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 whether more frequent or more timely public disclosure would be beneficial to investors in funds.[811] We cannot currently predict the extent to which the proposed enhancements to funds' disclosures on Form N–PORT would give rise to front-running, predatory trading, and other activities that could be detrimental to a fund and its investors, and thus we are unable to quantify potential costs related to these activities.

d. Effects on Efficiency, Competition, and Capital Formation

We believe the proposed requirements could increase informational efficiency by providing additional information about the liquidity of funds' portfolio positions to investors, third-party service providers, and the Commission. This in turn could assist investors in evaluating the risks associated with certain funds, which could increase allocative efficiency by assisting investors in making investment choices that better match their risk tolerances. 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 through high exposure 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 and/or risk management practices attractive, and this awareness promotes increased investment in these funds and in turn in the assets in which the funds invest. For example, disclosure that reveals liquidity risk in funds' portfolios could negatively impact capital formation if this disclosure leads investors to decide that such funds pose too great of an investment risk, and consequently decide not to invest in these funds or to decrease their investment in these funds. Conversely, to the extent that investors assume that funds investing in relatively less liquid assets 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 for these funds. If investors shift their invested assets between funds based on liquidity, there could be capital formation effects stemming from increased (or decreased) investment in the funds' portfolio assets, 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

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[801] This estimate assumes that 35% of funds (3,057 funds) would choose to file reports on proposed Form N–PORT in house (*see infra* section V.E) and is based on the following calculation: 3,057 funds × $16,587.75 ($318.50 + $15,330 + $780 + $159.25) = $50,708,751.75.

[802] This estimate assumes that 65% of funds (5,677) would choose to file reports on proposed Form N–PORT with the assistance of third-party service providers (*see infra* section V.E) and is based on the following calculation: 5,677 funds × $16,847.75 ($318.50 + $15,330 + $1,040 + $159.25) = $95,644,676.75.

[803] This estimate is based on the following calculation: 3,057 funds × $498.88 ($79.63 + $260 + $159.25) = $1,525,076.16.

[804] This estimate is based on the following calculation: 5,677 funds × $368.88 ($79.63 + $130 + $159.25) = $2,094,131.76.

[805] *See* Investment Company Reporting Modernization Release, *supra* note 104, at n.170 and accompanying and following text.

[806] *See* Russ Wermers, *The Potential Effects of More Frequent Portfolio Disclosure on Mutual Fund Performance,* 7 Investment Company Institute Perspective No. 3 (June 2001), *available at http://www.ici.org/pdf/per07–03.pdf.*

[807] *See* Investment Company Reporting Modernization Release, *supra* note 104, at nn.663–667 and accompanying text.

[808] *See id.* at paragraphs accompanying nn.663–673.

[809] *See id.*

[810] *See id.* at section II.A.4 and paragraph accompanying n. 670.

[811] *See id.*

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.

e. Reasonable Alternatives

The following discussion addresses significant alternatives to proposed disclosure and reporting requirements. More detailed alternatives to the individual elements of the proposed requirements are discussed in detail above, and we have requested comment on these alternatives.[812]

The Commission considered proposing to require each fund to disclose information about the liquidity of its portfolio positions in the fund's prospectus or on the fund's Web site, in addition to in reports filed on Form N–PORT. For example, we could have proposed to require a fund to disclose its three-day liquid asset minimum, or the percentage of the fund's portfolio invested in each of the liquidity categories specified under proposed rule 22e–4(b)(2)(i), in its prospectus or on its Web site. This additional disclosure could further increase transparency with respect to funds' portfolio liquidity and liquidity-related risks. But we had concerns that this additional disclosure could create investor confusion; for example, an investor could mistakenly understand statements about the liquidity of the fund's *portfolio* to implicate the redeemability of the fund's *shares.* We also had concerns that 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. We therefore determined that this alternative could lead to poor investor allocation and that its costs would likely outweigh its potential benefits.

Conversely, the Commission also considered limiting the proposed enhancements to funds' liquidity-related disclosures on proposed Form N–PORT. As discussed above, we are sensitive to the possibility that the proposed amendments to the proposed form could facilitate front-running, predatory trading, and other activities that could be detrimental to a fund and its investors. Limiting the required disclosure about information concerning the liquidity of funds' portfolio positions could allow funds to shelter certain information that they may consider a source of competitive advantage. As discussed in our recent proposal to modernize investment company reporting, the items included on proposed Form N–PORT reflect our careful consideration of what information we believe to be important for our oversight activities and to the public, and the costs to investment companies to provide the information.[813] We likewise carefully weighed costs and benefits with respect to the new liquidity-related disclosures proposed to be required under proposed 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.

D. Request for Comment

The Commission requests comment on all aspects of this initial economic analysis, including whether the analysis has: (i) Identified all benefits and costs, including all effects on efficiency, competition, and capital formation; (ii) given due consideration to each benefit and cost, including each effect on efficiency, competition, and capital formation; and (iii) identified and considered reasonable alternatives to the proposed new rule and rule amendments. We request and encourage any interested person to submit comments regarding the proposed rule and proposed amendments, our analysis of the potential effects of the proposed rule and proposed amendments, and other matters that may have an effect on the proposed rule and proposed amendments. We request that commenters identify sources of data and information as well as provide data and information to assist us in analyzing the economic consequences of the proposed rule and proposed amendments. We also are interested in comments on the qualitative benefits and costs we have identified and any benefits and costs we may have overlooked. We also request comments on all data and empirical analyses used in support of the proposed rule and proposed amendments.

In addition to our general request for comment on the economic analysis associated with the proposed rule and proposed amendments, we request specific comment on certain aspects of the proposal:

- To what extent do funds' current practices regarding portfolio asset liquidity classification and liquidity risk assessment and management currently align with the proposed liquidity risk management program requirements, and what operational and other costs would funds incur in modifying their current practices to comply with the proposed requirements?
- What factors, with respect to a fund's particular risks and circumstances, would cause particular variance in funds' compliance costs related to the liquidity risk management program requirement?
- We note that rule 22e–4 as proposed is meant to provide flexibility in permitting a fund to customize its liquidity risk management program, and thus we anticipate that the costs and burdens relating to the program requirement will vary based on the fund's risks and circumstances. Does this flexibility (and the attendant requirement for each fund to adopt liquidity risk management policies and procedures based on an assessment of the fund's individual liquidity risk) affect the extent to which a fund family could lower costs by developing procedures, or implementing systems modifications, that could be used by all funds within the fund family? Does this flexibility enhance the potential effectiveness of the proposed liquidity risk management program?
- We request comment on our estimates of the one-time and ongoing costs associated with the proposed program requirement. Do commenters agree with our cost estimates? If not, how should our estimates be revised, and what changes, if any, should be made to the assumptions forming the basis for our estimates? Are there any significant costs that have not been identified within our estimates that warrant consideration? To what degree would economies of scale affect compliance costs for larger entities, and is the longer proposed compliance period for small entities[814] appropriate in light of any relatively larger burden that would be borne by smaller entities that are not able to take advantage of economies of scale? How do commenters anticipate that these estimated costs might be allocated between a fund and its adviser?
- To what extent do commenters anticipate that the proposed liquidity risk management program requirement could lead funds to modify their investment strategies or increase their

[812] *See supra* sections III.G.1.a, III.G.1.b, III.G.2.d, and III.G.3.c.

[813] *See* Investment Company Reporting Modernization Release, *supra* note 104, at section IV.B.

[814] *See supra* section III.H.1.

investments in relatively more liquid assets? Do commenters believe that the proposed program requirement could significantly affect the market for relatively more liquid assets (or, conversely, the market for relatively less liquid assets) and if so, to what extent would these markets be affected?

- We request comment on our estimate of the number of funds that would adopt swing pricing policies and procedures under proposed rule 22c–1(a)(3). For what reasons would a fund decide not to adopt swing pricing policies and procedures, and would funds with certain investment strategies be relatively more likely to adopt swing pricing policies and procedures?
- What operational and other costs would a fund incur in adopting swing pricing policies and procedures, and would these costs be significantly lower if a fund is a member of a fund complex that also includes foreign-domiciled funds that currently use swing pricing? Do commenters agree with our cost estimates associated with proposed rule 22c–1(a)(3)? If not, how should our estimates be revised, and what changes, if any, should be made to the assumptions forming the basis for our estimates? Are there any significant costs that have not been identified within our estimates that warrant consideration? How do commenters anticipate that these estimated costs might be allocated between a fund and its adviser?
- Would fund shareholders be more inclined or less inclined to invest in a fund that has adopted swing pricing policies and procedures as contemplated by proposed rule 22c–1(a)(3)? Do commenters believe that swing pricing could preserve investment returns to fund investors? If so, please provide any available data regarding the relationship between the use of swing pricing and the preservation of investment returns.
- Do commenters agree with our statement that swing pricing would be simpler and less costly to implement than purchase fees or redemption fees?
- Do the proposed disclosure and reporting requirements raise any concerns about confidentiality relating to a fund's portfolio holdings, investor confusion, the potential misallocation of invested funds, or other concerns? To what extent would the proposed portfolio liquidity-related enhancements to funds' disclosures on Form N–PORT give rise to front-running, predatory trading, and other activities that could be detrimental to a fund and its investors?
- Would additional prospectus disclosure about funds' portfolio liquidity, beyond that which would be required under the proposed Form N–1A amendments, be useful to investors? If so, what additional disclosure would be most useful, and what disclosure methods would permit funds to appropriately balance disclosure about liquidity-related risks with disclosure regarding other risks facing the fund?

V. Paperwork Reduction Act Analysis

A. Introduction

Proposed rule 22e–4 and the proposed amendments to rule 22c–1 contain ''collections of information'' within the meaning of the Paperwork Reduction Act of 1995 (''PRA'').[815] In addition, the proposed amendments to rule 31a–2, Form N–1A and Regulation S–X would impact the collections of information burden under those rules and form.[816] The proposed amendments to proposed Form N–CEN and proposed Form N–PORT would impact the collections of information burdens associated with these proposed forms described in the Investment Company Reporting Modernization Release.[817]

The title for the existing collections of information are: ''Rule 31a–2 Records to be preserved by registered investment companies, certain majority-owned subsidiaries thereof, and other persons having transactions with registered investment companies'' (OMB Control No. 3235–0179); and ''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 Release, we submitted new collections of information for proposed Form N–CEN and proposed Form N–PORT.[818] 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 proposed new rule 22e–4 and the proposed amendments to rule 22c–1 under the Investment Company Act of 1940. The titles for these new collections of information would be: ''Rule 22e–4 Under the Investment Company Act of 1940, Liquidity risk management programs,'' and ''Rule 22c–1 Under the Investment Company Act of 1940, Pricing of redeemable securities for distribution, redemption and repurchase.'' 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 proposing new rule 22e–4 and amendments to rule 22c–1, rule 31a–2, Regulation S–X and Form N–1A. The Commission also is proposing to amend proposed Form N–CEN and proposed Form N–PORT. The new rule and proposed amendments are designed to promote effective liquidity risk management throughout the open-end fund industry, prevent potential dilution of interests of fund shareholders in light of redemption activity, and enhance disclosure regarding fund liquidity and shareholder redemption practices. We discuss below the collection of information burdens associated with these reforms.

B. Rule 22e–4

Proposed rule 22e–4 would require funds to establish a written liquidity risk management program that is reasonably designed to assess and manage the fund's liquidity risk. This program would include policies and procedures adopted by the fund that incorporate certain program elements, including: (i) Classification, and ongoing review of the classification, of the liquidity of a fund's portfolio positions; (ii) assessment and periodic review of a fund's liquidity risk; and (iii) management of the fund's liquidity risk, including determination and periodic review of the fund's three-day liquidity asset minimum and 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 would require board approval and oversight of the program and recordkeeping. The proposed requirements that funds adopt a written liquidity risk management program, report to the board, maintain a written record of how the three-day liquid asset minimum and any adjustments were determined, and retain certain records are collections of information under the

[815] 44 U.S.C. 3501 through 3521.

[816] The paperwork burden from Regulation S–X is imposed by the rules and forms that relate to Regulation S–X and, thus, is reflected in the analysis of those rules and forms. To avoid a PRA inventory reflecting duplicative burdens and for administrative convenience, we have previously assigned a one-hour burden to Regulation S–X.

[817] *See* Investment Company Reporting Modernization Release, *supra* note 104, at section V.

[818] *See id.*

PRA. The respondents to proposed rule 22e–4 would be open-end management investment companies (other than money market funds), and we estimate that funds within 867 fund complexes would be subject to proposed rule 22e–4.[819] Compliance with proposed rule 22e–4 would be mandatory for all such funds. Information regarding the fund's three-day liquid asset minimum would be confidential until publicly reported on Form N–PORT, as described below. Other information provided to the Commission in connection with staff examinations or investigations would be kept confidential subject to the provisions of applicable law.

1. Preparation of Written Liquidity Risk Management Program

We believe that most 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. Proposed rule 22e–4 would require funds to have a written liquidity risk management program. We believe such a program would promote efficient liquidity risk management, reduce the probability that a fund will be able to meet redemption requests only through activities that could materially affect the fund's NAV or risk profile or dilute the interests of fund shareholders, and respond to risks associated with increasingly complex portfolio investments and operations.

For purposes of this PRA analysis, we estimate 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. Proposed rule 22e–4 requires fund boards to approve the liquidity risk management program and any material changes to the program (including the three-day liquid asset minimum), and we estimate a one-time burden of nine 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, this would be an annual burden per fund complex of about 16 hours. Accordingly, we estimate that the total burden for initial documentation and review of funds' written liquidity risk management program would be 42,483 hours.[820] We also estimate that it would cost a fund complex approximately $38,466 to document, review and initially approve these policies and procedures, for a total cost of approximately $33,350,022.[821]

2. Reporting Regarding the Three-Day Liquid Assets Minimum

Under proposed rule 22e–4(b)(2)(iv), each fund would be required as part of its liquidity risk management program to determine and periodically review its three-day liquid asset minimum. The fund's investment adviser or officer that administers the liquidity risk management program must provide a written report to the fund's board at least annually that reviews the adequacy of the fund's liquidity risk management program, including the fund's three-day liquid asset minimum, and the effectiveness of its implementation.

For purposes of this PRA analysis, we estimate that, for each fund complex, compliance with the 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.[822] We estimate that the total burden for preparation of the board report would be 15,173 hours, at an aggregate cost of $4,502,331.[823]

3. Recordkeeping

Proposed rule 22e–4(c) would require a fund to maintain a written copy of policies and procedures adopted pursuant to its liquidity risk management program for five years in an easily accessible place. The proposed rule also would require a fund to maintain copies of materials provided to the board, as well as a written record of how the three-day liquid asset minimum and any adjustments to the minimum were determined, for five years, the first two years in an easily accessible place. 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 required liquidity risk management program. We estimate that the burden would be five hours per fund complex to retain these records, with 2.5 hours spent by a general clerk and 2.5 hours spent by a senior computer operator. We estimate a time cost per fund complex of $361.[824] We estimate 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.[825]

4. Estimated Total Burden

Amortized over a three-year period, the hour burdens and time costs associated with proposed rule 22e–4, including the burden associated with (a) funds' initial documentation and review of the required written liquidity risk management program, (b) reporting to a fund's board regarding the fund's three-day liquid asset minimum, and (c) recordkeeping requirements, would result in an average aggregate annual burden of 28,611 hours and average aggregate time costs of $14,431,215.[826]

[819] *See* 2015 ICI Fact Book, *supra* note 3, at Fig. 1.8.

[820] This estimate is based on the following calculation: (40 + 9) hours × 867 fund complexes = 42,483 hours.

[821] These estimates are based on the following calculations: 20 hours × $301 (hourly rate for a senior portfolio manager) = $6,020; 20 hours × $455.5 (blended hourly rate for assistant general counsel ($426) and chief compliance officer ($485) = $9,110; 5 hours × $4,400 (hourly rate for a board of 8 directors) = $22,000; 4 hours (for a fund attorney's time to prepare materials for the board's determinations) × $334 (hourly rate for a compliance attorney) = $1,336. $6,020 + $9,110 + $22,000 + $1,336 = $38,466; $38,466 × 867 fund complexes = $33,350,022. 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 $4,400.

[822] This estimate is based on the following calculation: 5 hours × $301 (hourly rate for a senior portfolio manager) = $1,505; 5 hours × $283 (hourly rate for compliance manager) = $1,415; 5 hours × $426 (hourly rate for assistant general counsel) = $2,130; and 2.5 hours × $57 (hourly rate for general clerk) = $143. $1,505 + $1,415 + $2,130 + $143 = $5,193. 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 hourly wage used for the general clerk is 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 each fund within a fund complex would be required to determine its own three-day liquid asset minimum, this estimate assumes that the report at issue would incorporate an assessment of the three-day liquid asset minimum for each fund within the fund complex.

[823] These estimates are based on the following calculations: 867 fund complexes × 17.5 hours = 15,173 hours; and $5,193 × 867 fund complexes = $4,502,331.

[824] This estimate is based on the following calculations: 2.5 hours × $57 (hourly rate for a general clerk) = $143; 2.5 hours × $87 (hour rate for a senior computer operator) = $218. $143 + $218 = $361.

[825] This estimate is based on the following calculations: 867 fund complexes × 5 hours = 4,335 hours. 867 fund complexes × $361 = $312,987.

[826] These estimates are based on the following calculations: 42,483 hours (year 1) + (2 × 15,173 hours) (years 2 and 3) + (3 × 4,335 hours) (years 1, 2 and 3) ÷ 3 = 28,611 hours; $33,350,022 (year 1)

Continued

We estimate that there are no external costs associated with this collection of information.

C. Rule 22c–1

We are proposing to amend rule 22c–1 and establish new collection of information burdens under the rule. The proposed amendments would permit a fund (with the exception of a money market fund or ETF) to establish and implement policies and procedures that would require the fund, under certain circumstances, to use swing pricing to mitigate dilution of the value of outstanding redeemable securities stemming from shareholder purchase or redemption activity. We believe the proposed amendments to rule 22c–1 would promote investor protection by providing funds with an additional tool to mitigate the potentially dilutive effects of shareholder purchase or redemption activity and provide a set of operational standards that would allow funds to gain comfort using swing pricing as a new means of mitigating potential dilution.[827]

In order to use swing pricing under the proposed amendments, a fund would be required to establish and implement swing pricing policies and procedures that meet certain requirements.[828] The proposed amendments also would require a fund's board of directors to approve the fund's swing pricing policies and procedures, including any material change to these policies and procedures,[829] and funds would be required to maintain a written copy of the fund's swing pricing policies and procedures.[830] The requirements that funds adopt policies and procedures, obtain board approval and retain certain records related to swing pricing are collections of information under the PRA. The respondents to the proposed amendments to rule 22c–1 would be open-end management investment companies (other than money market funds or ETFs) that engage in swing pricing. We estimate that 167 fund complexes include funds that would adopt swing pricing policies and procedures pursuant to the rule.[831] Compliance with rule 22c–1 would be mandatory for any fund that chose to use swing pricing to adjust its NAV in reliance on the proposed amendments. The information when provided to the Commission in connection with staff examinations or investigations would be kept confidential subject to the provisions of applicable law.

For purposes of this PRA analysis, we estimate that each fund complex would incur a one-time average burden of 24 hours to document swing pricing policies and procedures. The proposed amendments to rule 22c–1 would require fund boards initially to approve the swing pricing policies and procedures (including the swing threshold) and any material changes to them, and we estimate a one-time burden of five hours per fund complex associated with the fund board's review and approval of swing pricing policies and procedures. Amortized over a 3 year period, this would be an annual burden per fund complex of about 10 hours. Accordingly, we estimate that the total burden associated with the preparation and approval of swing pricing policies and procedures by those fund complexes that we believe would use swing pricing would be 4,843 hours.[832] We also estimate that it would cost a fund complex $21,710 to document, review and initially approve these policies and procedures, for a total cost of $3,625,570.[833]

The proposed amendments to rule 22c–1 also would require a fund that uses swing pricing to retain a written copy of the fund's swing policies and procedures that are in effect, or at any time within the past six years were in effect, in an easily accessible place.[834] 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 its swing pricing policies and procedures, and whether the policies and procedures comply with the proposed amendments to rule 22c–1. We estimate that the burden would be three hours per fund complex to retain these records, with 1.5 hours spent by a general clerk and 1.5 hours spent by a senior computer operator. We estimate a time cost per fund complex of $216.[835] We estimate that the total for recordkeeping related to swing pricing would be 501 hours, at an aggregate cost of $36,072 for all fund complexes that we believe include funds that would adopt swing pricing policies and procedures.[836]

Amortized over a three-year period, the hour burdens and time costs associated with the proposed amendments to rule 22c–1, including the burden associated with the requirements that funds adopt policies and procedures, obtain board approval and retain certain records related to swing pricing, would result in an average aggregate annual burden of 2,115 hours and average aggregate time costs of $1,244,595.[837] We estimate that there are no external costs associated with this collection of information.

D. Rule 31a–2

Section 31(a)(1) of the Investment Company Act requires registered investment companies and certain of their majority-owned subsidiaries to maintain and preserve records as prescribed by Commission rules. Rule 31a–1 under the Act specifies the books and records that must be maintained. Rule 31a–2 under the Act specifies the time periods that entities must retain certain books and records, including those required to be maintained under rule 31a–1. The retention of records, as required by rule 31a–2, is necessary to ensure access by Commission staff to material business and financial information about funds and certain related entities. This information is used by the staff to evaluate fund compliance with the Investment Company Act and regulations thereunder. The Commission currently estimates that the annual burden associated with rule 31a–2 is 220 hours per fund, with 110 hours spent by a general clerk at a rate of $52 per hour and 110 hours spent by a senior computer operator at a rate of $81 per hour.[838] The current estimate of the

+ (2 × $4,502,331) (years 2 and 3) + (3 × $312,987) (years 1, 2 and 3) ÷ 3 = $14,431,215.

827 *See supra* section IV.C.2.b.

828 *See* proposed rule 22c–1(a)(3)(i).

829 *See* proposed rule 22c–1(a)(3)(ii).

830 *See* proposed rule 22c–1(a)(3)(iii).

831 *See supra* section IV.C.2.c.

832 This estimate is based on the following calculation: (24 + 5) hours × 167 fund complexes = 4,843 hours.

833 These estimates are based on the following calculations: 12 hours × $198 (hourly rate for a senior accountant) = $2,376; 12 hours × $455.5 (blended hourly rate for assistant general counsel ($426) and chief compliance officer ($485) = $5,466; 3 hours × $4,400 (hourly rate for a board of 8 directors) = $13,200; 2 hours (for a fund attorney's time to prepare materials for the board's determinations) × $334 (hourly rate for a compliance attorney) = $668; ($2,376 + $5,466 + $13,200 + $668) = $21,710; $21,710 × 167 fund complexes = $3,625,570. 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. *See also supra* note 821 (discussing basis for estimated hourly rate for a board of directors).

834 Proposed rule 22c–1(a)(3)(iii).

835 This estimate is based on the following calculations: 1.5 hours × $57 (hourly rate for a general clerk) = $85.5; 1.5 hours × $87 (hour rate for a senior computer operator) = $130.5. $85.5 + $130.5 = $216.

836 These estimates are based on the following calculation: 3 hours × 167 fund complexes = 501 hours. 167 fund complexes × $216 = $36,072.

837 These estimates are based on the following calculations: 4,843 hours (year 1) + (3 × 501 hours) (years 1, 2 and 3) ÷ 3 = 2,115 hours; $3,625,570 (year 1) + (3 × $36,072) (years 1, 2 and 3) ÷ 3 = $1,244,595.

838 The estimated salary rates were derived from SIFMA's Office Salaries in the Securities Industry 2011, modified to account for an 1800-hour work-

total annual burden for all funds to comply with rule 31a–2 is approximately 766,480 hours at an estimated cost of $50,970.920.[839]

We are proposing to amend rule 31a–2 to require a fund that chooses to use swing pricing to create and maintain a record of support for each computation of an adjustment to the NAV of the fund's shares based on the fund's swing policies and procedures.[840] This collection of information requirement would be mandatory for any fund that chooses to use swing pricing to adjust its NAV in reliance on the proposed amendments to rule 22c–1. To the extent that the Commission receives confidential information pursuant to this collection of information, such information would be kept confidential, subject to the provisions of applicable law.

We estimate that approximately 947 funds would use swing pricing pursuant to the proposed amendments to rule 22c–1. We also estimate that each fund that uses swing pricing generally would incur an additional burden of 1 hour per year in order to comply with the proposed amendments to rule 31a–2. Accordingly, we estimate that the total average annual hour burden associated with the proposed amendments to rule 31a–2 would be an additional 947 hours at a cost of $68,169.[841]

The Commission currently estimates that the average external cost of preserving books and records required by rule 31a–2 is approximately $70,000 per fund at a total cost of approximately $243,880,000 per year,[842] but that funds would already spend approximately half this amount to preserve these same books and records, as they are also necessary to prepare financial statements, meet various state reporting requirements, and prepare their annual federal and state income tax returns. Therefore, the Commission estimated that the total annual cost burden for all funds as a result of compliance with rule 31a–2 is approximately $121,940,000.[843] We estimate that the annual external cost burden of compliance with the information collection requirements of rule 31a–2 would increase by $300 per fund that engages in swing pricing, for an increase in the total annual cost burden of $284,100.[844]

E. Form N–PORT

On May 20, 2015, the Commission proposed Form N–PORT, which would 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. 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 would be data-tagged in XML format. Responses to the reporting requirements would be kept confidential for reports filed with respect to the first two months of each quarter; the third month of the quarter would not be kept confidential, but made public sixty days after the quarter end.

In the Investment Company Reporting Modernization Release, we estimated that, for the 35% of funds that would file reports on proposed Form N–PORT in house, the per fund average aggregate annual hour burden was estimated to be 178 hours per fund, and the average cost to license a third-party software solution would be $4,805 per fund per year.[845] For the remaining 65% of funds that would retain the services of a third party to prepare and file reports on proposed Form N–PORT on the fund's behalf, we estimated the average aggregate annual hour burden to be 125 hours per fund, and each fund would pay an average fee of $11,440 per fund per year for the services of third-party service provider. In sum, we estimated that filing reports on proposed Form N–PORT would impose an average total annual hour burden of 1,537,572 hours on applicable funds, and all applicable funds would incur on average, in the aggregate, external annual costs of $97,674,221.[846]

We are proposing amendments to Form N–PORT that would require each fund to report its three-day liquid asset minimum,[847] the liquidity classification for each portfolio asset position (or portion thereof),[848] and whether an asset is a 15% standard asset.[849] For portfolio assets with multiple liquidity classifications, the proposed amendments would require funds to indicate the dollar amount attributable to each classification. We believe that requiring funds to report information about the liquidity of portfolio investments would assist the Commission in better assessing liquidity risk in the open-end fund industry. Moreover, we believe that this information would help investors and potential users better understand the liquidity risks in funds.

1. Liquidity Classification

Under proposed rule 22e–4(b)(2)(i), an open-end management investment company (other than a money market fund) would be required as part of its liquidity risk management program to classify the liquidity of each of its positions in a portfolio asset (or portions of a position in a particular asset) based the number of days that the fund's position in the asset (or portion thereof) would be convertible to cash at a price that does not materially affect the value of that asset immediately prior to sale. We estimate 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.[850] Funds also would be required to conduct an ongoing review of the liquidity of their assets. Proposed rule 22e–4(b)(2)(ii) includes factors that funds must take into account when classifying the liquidity of their assets. The liquidity classifications of each portfolio asset position would be reported on Item C. 13 of proposed Form N–PORT.

Based on staff outreach, we understand that many funds currently categorize assets based on their liquidity, but this proposal would require a specific type of classification and the determination of a three-day liquid asset minimum. We expect that funds would incur a one-time internal burden to initially classify a fund's

year and multiplied by 2.93 to account for bonuses, firm size, employee benefits, and overhead.

[839] These estimates were based on the following calculations: 220 hours × 3,484 funds (the estimated number of funds the last time the rule's information collections were submitted for PRA renewal in 2012) = 766,480 total hours; 776,480 hours ÷ 2 = 383,240 hours; 383,240 × $52/hour for a clerk = $19,928,480; 383,240 × $81 rate per hour for a computer operator = $31,042,440; $19,928,480 + $31,042,440 = $50,970,920 total cost.

[840] Proposed amendment to rule 31a–2(a)(2).

[841] These estimates are based on the following calculations: 1 hour × 947 funds = 947 total hours; 474 hours × $57 rate per hour for a general clerk = $27,018; 473 hours × $87 rate per hour for a senior computer operator = $41,151; $27,018 + $41,151 = $68,169 total cost.

[842] This estimate is based on the following calculation: 3,484 funds (the estimated number of funds the last time the rule's information collections were submitted for PRA renewal in 2012) × $70,000 = $243,880,000.

[843] *See Submission of OMB Review; Comment Request, Extension: Rule 31a–2, OMB Control No. 3235–0179,* Securities and Exchange Commission 77 FR 66885 (Nov. 7, 2012).

[844] This estimate is based on the following calculation: 947 funds × $300 = $284,100.

[845] *See* Investment Company Reporting Modernization Release, *supra* note 104, at nn.736–741, 749 and accompanying text.

[846] *See* Investment Company Reporting Modernization Release, *supra* note 104, at nn.748 and 751 and accompanying text.

[847] *See* proposed Item B.7 of proposed Form N–PORT.

[848] *See* proposed Item C.13 of proposed Form N–PORT.

[849] *See* proposed Item C.7 of proposed Form N–PORT.

[850] There were 8,734 open-end funds (excluding money market funds, and including ETFs (for purposes of these calculations, we exclude non-1940 Act ETFs)) as of the end of 2014. *See* 2015 ICI Fact Book, *supra* note 3, at 177, 184.

portfolio securities and program existing systems to conduct the ongoing classifications and reviews required by the proposed rule for reporting purposes. We estimate that each fund would incur an average one-time burden of 54 hours at a time cost of $15,330.[851] Amortized over a three year period, this would result in an average annual hour burden of approximately 18 burden hours and a time cost of $5,110.[852]

2. Reporting on Proposed Form N–PORT

In addition to the classification and review of securities, we estimate that 8,734 [853] funds would be required to file, on a monthly basis, additional information on Form N–PORT as a result of the proposed amendments. We estimate 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 amendments for the first time and an average of approximately 1 burden hours 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 proposed amendments for these funds would be an additional 14 hours for the first year [854] and an additional 12 hours for each subsequent year.[855] Amortized over three years, the average annual hour burden would be an additional 12.67 hours per fund.[856]

We estimate 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. For these funds, we estimate 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, we estimate the per fund average annual hour burden associated with the incremental changes to proposed Form N–PORT as a result of the proposed amendments for these funds would be an additional 9.5 hours for the first year [857] and an additional 6 hours for each subsequent year.[858] Amortized over three years, the average aggregate annual hour burden would be an additional 7.17 hours per fund.[859] In sum, we estimate that the proposed amendments to Form N–PORT would impose an average total annual hour burden of an additional 79,436.28 hours on applicable funds.[860] We do not anticipate any change to the total external annual costs of $97,674,221.[861]

F. 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 be a collection of information under the PRA, and is 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 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.[862] 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.[863] 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 proposing amendments to Form N–CEN to enhance the reporting of a fund's liquidity risk management practices. Specifically, the proposed amendments to Form N–CEN would require a fund to disclose information about committed lines of credit, including 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. The proposed amendments to Form N–CEN also would require a fund to report whether it engaged in interfund lending or interfund borrowing. Funds other than money market funds and ETFs would be required to report whether they used swing pricing during the reporting period. In addition, proposed amendments to Form N–CEN would require an ETF to report whether it required that an authorized participant post collateral to the ETF or any of its designated service providers in connection with the purchase or redemption of ETF shares during the reporting period.[864]

We estimate 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 estimate 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.[865] We do not estimate any change to the external costs associated with proposed Form N–CEN.

G. Form N–1A

Form N–1A is the registration form used by open-end investment companies. The respondents to the proposed amendments to Form N–1A 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.[866]

We are proposing amendments to Form N–1A that would require funds

[851] We estimate that these systems modifications would include the following costs: (i) Project planning and systems design (24 hours × $260 (hourly rate for a senior systems analyst) = $6,240) and (ii) systems modification integration, testing, installation and deployment (30 hours × $303 (hourly rate for a senior programmer) = $9,090. $6,240 + $9,090 = $15,330.

[852] $15,330 ÷ 3 = $5,110.

[853] There were 8,734 open-end funds (excluding money market funds, and including ETFs) as of the end of 2014. *See* 2015 ICI Fact Book, *supra* note 3, at 177, 184.

[854] The estimate is based on the following calculation: (1 filing × 3 hours) + (11 filings × 1 hour) = 14 burden hours in the first year.

[855] This estimate is based on the following calculation: 12 filings × 1 hour = 12 burden hours in each subsequent year.

[856] The estimate is based on the following calculation: (14 + (12 × 2)) ÷ 3 = 12.67.

[857] The estimate is based on the following calculation: (1 filing × 4 hours) + (11 filings × 0.5 hour) = 9.5 burden hours in the first year.

[858] This estimate is based on the following calculation: 12 filings × 0.5 hour = 6 burden hours in each subsequent year.

[859] The estimate is based on the following calculation: (9.5 + (6 × 2)) ÷ 3 = 7.17.

[860] The estimate is based on the following calculation: (3,057 funds × 12.67 hours) + (5,677 funds × 7.17 hours) = 79,436.28 hours.

[861] *See* Investment Company Reporting Modernization Release, *supra* note 104, at n. 751 and accompanying text.

[862] *Id.* at n. 762 and accompanying text.

[863] *Id.* at n. 765 and accompanying text.

[864] We do not estimate any change in burden as a result of proposed Item 60(g) of Form N–CEN because the proposed new item only requires a yes or no response.

[865] This estimate is based on the following calculation: 8,734 funds × 0.5 hours = 4,367 hours.

[866] These estimates are based on the last time the rule's information collections were submitted for PRA renewal in 2014.

that use swing pricing to disclose that they use swing pricing, and, if applicable, an explanation of the circumstances under which swing pricing is used, and the effects of using swing pricing.[867] We also are proposing amendments to Form N–1A that would require funds to disclose on their balance sheet the NAV as adjusted pursuant to swing pricing policies and procedures. The proposed amendments to Form N–1A also would require funds to disclose additional information concerning the procedures for redeeming a fund's shares. Funds would be required to describe the number of days following receipt of shareholder redemption requests in which the fund will pay redemption proceeds to redeeming shareholders.[868] Funds also would be required to describe the methods used to meet redemption requests in stressed and non-stressed market conditions.[869] Finally, funds would be required to file as exhibits to their registration statements credit agreements for the benefit of the funds. Overall, we believe that requiring funds to provide this additional disclosure regarding swing pricing and redemption procedures, and requiring the filing of credit agreements would provide Commission staff, investors, and market participants with improved information about the procedures funds use to meet their redemption obligations and the conditions under which swing pricing procedures will be used to mitigate the effects of dilution as a result of shareholder purchase or redemption activity.

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). We estimate that each fund would incur a one-time burden of an additional 2 hours,[870] at a time cost of an additional $637,[871] to draft and finalize the required disclosure and amend its registration statement. In aggregate, we estimate that funds would incur a one-time burden of an additional 17,468 hours,[872] at a time cost of an additional $5,563,558,[873] to comply with the proposed Form N–1A disclosure requirements. Amortizing the one-time burden over a three-year period results in an average annual burden of an additional 5,823 hours at a time cost of an additional $1,854,519.[874]

We estimate that each fund would incur an ongoing burden of an additional 0.25 hours, at a time cost of an additional $80,[875] 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 estimate that funds would incur an annual burden of an additional 2,184 hours,[876] at a time cost of an additional $695,604,[877] to comply with the proposed Form N–1A disclosure requirements.

Amortizing these one-time and ongoing hour and cost burdens over three years results in an average annual increased burden of approximately 0.50 hours per fund,[878] at a time cost of $265.42 per fund.[879]

In total, we estimate that funds would incur an average annual increased burden of approximately 8,007 hours,[880] at a time cost of approximately $2,550,123,[881] to comply with the proposed Form N–1A disclosure requirements. We do not estimate any change to the external costs associated with the proposed amendments to Form N–1A.

H. Request for Comments

We request comment on whether our estimates for burden hours and any external costs as described above are reasonable. Pursuant to 44 U.S.C. 3506(c)(2)(B), the Commission solicits comments in order to: (i) Evaluate whether the proposed collections of information are necessary for the proper performance of the functions of the Commission, including whether the information will have practical utility; (ii) evaluate the accuracy of the Commission's estimate of the burden of the proposed collections of information; (iii) determine whether there are ways to enhance the quality, utility, and clarity of the information to be collected; and (iv) determine whether there are ways to minimize the burden of the collections of information on those who are to respond, including through the use of automated collection techniques or other forms of information technology.

The agency has submitted the proposed collection of information to OMB for approval. Persons wishing to submit comments on the collection of information requirements of the proposed amendments should direct them to the Office of Management and Budget, Attention Desk Officer for the Securities and Exchange Commission, Office of Information and Regulatory Affairs, Washington, DC 20503, and should send a copy to Brent J. Fields, Secretary, Securities and Exchange Commission, 100 F Street NE., Washington, DC 20549 1090, with reference to File No. S7–16–15. 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. S7–16–15, and be submitted to the Securities and Exchange Commission, Office of FOIA Services, 100 F Street NE., Washington, DC 20549–2736.

VI. Initial Regulatory Flexibility Act Analysis

This Initial Regulatory Flexibility Analysis has been prepared in accordance with section 3 of the

[867] *See* proposed Item 6(d) of Form N–1A.

[868] *See* proposed Item 11(c)(7) of Form N–1A.

[869] *See* proposed Item 11(c)(8) of Form N–1A.

[870] This estimate is 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.

[871] This estimate is based on the following calculation: 2 hours × $318.5 (blended rate for a compliance attorney ($334) and a senior programmer ($303)) = $637.

[872] This estimate is based on the following calculations: 2 hours × 8,734 funds = 17,468 hours.

[873] This estimate is based on the following calculation: 17,468 hours × $318.50 (blended rate for a compliance attorney ($334) and a senior programmer ($303)) = $5,563,558.

[874] This estimate is 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.

[875] This estimate is based on the following calculations: 0.25 hours × $318.50 (blended hourly rate for a compliance attorney ($334) and a senior programmer ($303)) = $79.63.

[876] This estimate is based on the following calculation: 0.25 hours × 8,734 funds = 2,183.5 hours.

[877] This estimate is based on the following calculation: 2,184 hours × $318.50 (blended hourly rate for a compliance attorney ($334) and a senior programmer ($303)) = $695,604.

[878] 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.

[879] This estimate is 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.

[880] This estimate is based on the following calculation: 5,823 hours + 2,184 hours = 8,007 hours.

[881] This estimate is based on the following calculation: $1,854,519 + $695,604 = $2,550,123.

Regulatory Flexibility Act (''RFA'').[882] It relates to: Proposed rule 22e–4; proposed amendments to rule 22c–1(a)(3) and rule 31a–2; and proposed amendments to Form N–1A, Regulation S–X, proposed Form N–PORT, and proposed Form N–CEN.

A. Reasons for and Objectives of the Proposed Actions

Funds are not currently subject to requirements under the federal securities laws or Commission rules that specifically require them to manage their liquidity risk.[883] Also, with the exception of money market funds, there are guidelines (not rules) stating that an open-end fund should limit its investments in illiquid assets.[884] Moreover, funds are only subject to limited disclosure and reporting requirements concerning a fund's liquidity risk and risk management.[885] We understand that funds today engage in a variety of different practices, with varying levels of comprehensiveness, for classifying the liquidity of their portfolio assets, assessing and managing liquidity risk, and disclosing information about their liquidity risk, redemption practices, and liquidity risk management practices to investors.[886]

The Commission is proposing a new rule, amendments to current rules, and amendments to current and proposed forms that are designed 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 proposed amendments also seek to enhance disclosure regarding fund liquidity and redemption practices. Specifically, a primary objective of these proposed 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 proposed 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 the fund as a result of other investors' purchase and redemption activity. Finally, the proposed 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 IV above.

B. Legal Basis

The Commission is proposing new rule 22e–4 under the authority set forth in sections 22(c), 22(e) and 38(a) of the Investment Company Act [15 U.S.C. 80a–37(a)]. The Commission is proposing amendments to rule 22c–1 under the authority set forth in sections 22(c) and 38(a) of the Investment Company Act [15 U.S.C. 80a–22(c) and 80a–37(a)]. The Commission is proposing amendments to rule 31a–2 under the authority set forth in section 31(a) of the Investment Company Act [15 U.S.C. 80a–31(a)]. The Commission is proposing amendments to Form N–1A, Regulation S–X, proposed Form N–PORT, and proposed 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, 13, 15, and 23, and 35A thereof [15 U.S.C. 78a *et seq.*], and the Investment Company Act, particularly, sections 8, 30, and 38 thereof [15 U.S.C. 80a *et seq.*].

C. Small Entities Subject to the Proposed Liquidity Regulations

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.[887] Commission staff estimates that, as of December 2014, there were 134 small open-end investment companies (comprising 85 fund complexes) that would be considered small entities; this number includes open-end ETFs.

D. Projected Reporting, Recordkeeping, and Other Compliance Requirements

1. Proposed Rule 22e–4

Proposed new rule 22e–4 would require each fund, including each small entity, to establish a written liquidity risk management program.[888] A fund's liquidity risk management program would be required to include the following elements: (i) A fund must classify, and review the classification on an ongoing basis, the liquidity of each of the fund's positions in a portfolio asset (or portions of a position in a particular asset), taking into account certain specified factors;[889] (ii) a fund must assess and periodically review its liquidity risk, taking into account certain specified factors;[890] and (iii) a fund must manage its liquidity risk, including by maintaining a prescribed minimum portion of net assets in three-day liquid assets.[891] A fund's board, including a majority of the fund's independent directors, would be required to approve the fund's liquidity risk management program, as well as any material change to the program.[892] Proposed rule 22e–4 also includes certain recordkeeping requirements.[893] All of these requirements are discussed in detail above in sections III.A. and III.E. For smaller funds and fund groups (*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), which would include small entities, we have proposed an extra 12 months (or 30 months after the effective date) to comply with the proposed liquidity risk management program requirement.[894]

We estimate that 85 fund complexes are small fund groups that have funds that would be required to comply with the proposed liquidity risk management program requirement.[895] As discussed above, we estimate that, on average, a fund complex would incur one-time costs ranging from $1,300,000 to $2,250,000, depending on the fund's particular circumstances and current liquidity risk management practices, to establish and implement a liquidity risk management program.[896] We further estimate that a fund complex would incur ongoing annual costs associated with proposed rule 22e–4 that would range from $130,000 to $562,500.[897] For purposes of this analysis, Commission staff estimates, based on outreach conducted with a variety of funds regarding funds' current liquidity risk management practices, that approximately two-thirds of small fund groups would incur one-time and ongoing costs on the low end of the range of costs associated with establishing and implementing a liquidity risk management program,[898]

[882] 5 U.S.C. 603.

[883] *See supra* sections II.D, IV.B.1.a.

[884] *See id.*

[885] *See supra* sections II.D, IV.B.1.c.

[886] *See supra* sections II.D, IV.B.1.a, IV.B.1.c.

[887] *See* rule 0–10(a) under the Investment Company Act.

[888] Proposed rule 22e–4(b)(1).

[889] Proposed rule 22e–4(b)(2)(i)–(ii).

[890] Proposed rule 22e–4(b)(2)(iii).

[891] Proposed rule 22e–4(b)(2)(iv).

[892] Proposed rule 22e–4(b)(3).

[893] Proposed rule 22e–4(c).

[894] *See supra* section III.H.

[895] *See supra* section VI.C.

[896] *See supra* section IV.C.1.c.

[897] *See id.*

[898] *See id.*

and one-third of small fund groups would incur one-time and ongoing costs on the high end of the range.[899]

2. Swing Pricing

Under proposed rule 22c–1(a)(3), all funds (except money market funds and ETFs), including small entities, would be permitted (but not required) to use swing pricing to adjust the fund's current NAV to prevent potential dilution of the value of outstanding redeemable securities caused by shareholder purchase or redemption activity. In order to use swing pricing, a fund would be required to adopt swing pricing policies and procedures that must: (i) Provide that the fund will adjust its NAV by an amount designated as the ''swing factor'' once the level of net purchases or net redemptions from the fund has exceeded a specified percentage of the fund's net asset value known as the ''swing threshold''; [900] (ii) specify the fund's swing threshold, considering certain specified factors; [901] (iii) provide for the periodic review (at least annually) of the fund's swing threshold considering certain specified factors; [902] (iv) specify how the swing factor to be used to adjust the fund's NAV when the fund's swing threshold is breached will be determined, which determination must take into account certain specified factors.[903] A fund's board, including a majority of the fund's independent directors, would be required to approve the fund's swing pricing policies and procedures.[904] A fund that adopts swing pricing policies and procedures also would be subject to certain recordkeeping requirements under proposed rule 22c–1(a)(3) and proposed amendments to rule 31a–2(a)(2).[905] Because proposed rule 22c–1(a)(3) would permit, but not require, a fund to adopt swing pricing policies and procedures, there is no compliance date associated with this proposed rule. Thus, while we anticipate that the compliance dates for proposed rule 22e–4 and the proposed disclosure and reporting requirements regarding liquidity risk and liquidity risk management would be tiered to permit a longer compliance period for smaller funds and fund groups, there would be no need for tiered compliance with respect to proposed rule 22c–1(a)(3) and the proposed amendments to rule 31a–2(a)(2), because a fund would be permitted to adopt swing pricing policies and procedures within whatever period the fund chooses.[906]

As discussed above, we estimate that, on average, a fund complex would incur one-time costs ranging from $1,300,000 to $2,250,000, depending on the fund complex's particular circumstances, to adopt swing pricing policies and procedures and comply with related record retention requirements, as well as ongoing annual costs ranging from $65,000 to $337,500 per year associated with the proposed swing pricing (and related recordkeeping) regulations.[907] We estimate that 24 fund complexes that are small complexes would adopt swing pricing policies and procedures under proposed rule 22c–1(a)(3).[908] Because staff is unable to estimate how many small fund complexes would incur one-time and ongoing costs on the low end of the estimated range versus the high end of the estimated range, staff estimates that each small fund complex would incur one-time costs of $1,775,000 (which represents the middle of the range of estimated one-time costs) [909] and ongoing costs of $201,250 (which represents the middle of the range of estimated ongoing costs).[910]

3. Disclosure and Reporting Requirements Regarding Liquidity Risk and Liquidity Risk Management

We are proposing amendments to Form N–1A, proposed Form N–PORT, and proposed Form N–CEN to enhance fund disclosure and reporting regarding the fund's redemption practices, portfolio liquidity, and certain liquidity risk management practices. Specifically, proposed amendments to Form N–1A would require new disclosure regarding a fund's redemption practices and its use of swing pricing (as applicable); [911] and proposed amendments to proposed Form N–PORT would require a fund to report certain information about the liquidity of the fund's portfolio assets.[912] Proposed amendments to proposed Form N–CEN would require a fund to report certain information about the fund's use of lines of credit, interfund lending and borrowing, and swing pricing, and also would require an ETF to report whether it requires authorized participants to post collateral in connection with the purchase or redemption of ETF shares.[913]

All funds would be subject to the proposed disclosure and reporting requirements, including funds that are small entities. For smaller funds and fund groups (*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), which would include small entities, we proposed an extra 12 months (or 30 months after the effective date) to comply with the proposed Form N–PORT reporting requirements.[914] We estimate that 134 funds are small entities that would be required to comply with the proposed disclosure and reporting requirements.[915]

As discussed above, we estimate that each fund, including funds that are small entities, would incur a one-time burden of an additional 2 hours, at a time cost of an additional $637 (plus printing costs), to comply with the proposed amendments to Form N–1A.[916] 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 $80 each year associated with compliance with the proposed amendments to Form N–1A.[917] We do not estimate any change to the external costs associated with the proposed amendments to Form N–1A.[918]

We also estimate that the one-time disclosure- and reporting-related compliance costs for a fund that files reports in compliance with the proposed amendments to Form N–PORT in house would be approximately $780, and the one-time costs for a fund that uses a third-party service provider to prepare and file reports on proposed Form N–PORT would be approximately

[899] *See id.*

[900] Proposed rule 22c–1(a)(3)(i)(A).

[901] Proposed rule 22c–1(a)(3)(i)(B).

[902] Proposed rule 22c–1(a)(3)(i)(C).

[903] Proposed rule 22c–1(a)(3)(i)(D).

[904] Proposed rule 22c–1(a)(3)(ii).

[905] Proposed rule 22c–1(a)(3)(iii); proposed amendments to rule 31a–2(a)(2).

[906] *See supra* section III.H.

[907] *See supra* section IV.C.2.c.

[908] We assume that certain types of mutual fund strategies (high-yield bond funds, world bond funds (including emerging market debt funds), multi-sector bond funds, state municipal funds, alternative strategy funds, and emerging market equity funds would be relatively more likely to adopt swing pricing policies and procedures, and of the fund complexes with funds comprising these strategies, 75% would actually adopt swing pricing policies and procedures. Staff estimates that there are 32 fund complexes that are small fund groups with funds that use these stated strategies. 0.75 × 32 funds = 24 funds.

[909] This estimate is based on the following calculations: $1,300,000 + $2,250,000 = $3,550,000; $3,550,000 ÷ 2 = $1,775,000.

[910] This estimate is based on the following calculations: $65,000 + $337,500 = $402,500; $402,500 ÷ 2 = $201,250.

[911] Proposed Items 6(d), 11(c)(8), 11(c)(9) of Form N–1A.

[912] Proposed Items B.7, C.7, and C.13 of proposed Form N–PORT.

[913] Proposed Items 44 and 60(g) of proposed Form N–CEN.

[914] *See supra* section III.H.

[915] *See supra* section VI.C.

[916] *See supra* notes 790, 870–871 and accompanying text.

[917] *See supra* notes 791, 875 and accompanying text.

[918] *See supra* section V.G.

$1,040.[919] We estimate that the ongoing disclosure- and reporting-related compliance costs for a fund that files reports to comply with the proposed amendments to Form N–PORT in house would be approximately $260, and the ongoing costs for a fund that uses a third-party service provider to prepare and file reports on proposed Form N–PORT would be approximately $130.[920] These compliance cost estimates would not vary based on the fund's size. We assume that 35% of funds that are small entities, or approximately 47 funds, would file reports on proposed Form N–PORT in house, and 65% of funds that are small entities, or approximately 87 funds, would use a third-party service provider to prepare and file reports on proposed Form N–PORT.[921]

As discussed above, we also estimate that the average annual burden per additional response to Form N–CEN as a result of the proposed amendments would be 0.5 hour per year per fund, including funds that are small entities.[922] Furthermore, 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 proposed amendments would be approximately $160 per fund, including funds that are small entities.[923] We do not estimate any change to the external costs associated with proposed Form N–CEN.[924]

E. Duplicative, Overlapping, or Conflicting Federal Rules

Commission staff has not identified any federal rules that duplicate, overlap, or conflict with the proposed liquidity regulations.

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 liquidity regulations: (i) Exempting funds that are small entities from proposed rule 22e–4, and/or establishing different requirements under proposed rule 22e–4 to account for resources available to small entities; (ii) exempting funds that are small entities from the proposed disclosure and reporting requirements, or establishing different disclosure and reporting requirements, or different reporting frequency, to account for resources available to small entities; and (iii) exempting funds that are small entities from proposed rule 22c–1(a)(3) and the recordkeeping requirements of the proposed amendments to rule 31a–2.

We do not believe that exempting any subset of funds, including funds that are small entities, from proposed rule 22e–4 would permit us to achieve our stated objectives. As discussed above, we believe that the proposed liquidity regulations would result in multiple investor protection benefits, and these benefits should apply to investors in smaller funds as well as investors in larger funds.[925] Small funds do not entail less liquidity risk than larger funds, and investors in small funds could suffer from ineffective liquidity risk management just as investors in larger funds could. Indeed, analysis by staff economists has shown that funds with relatively low assets can actually experience greater flow volatility (including more volatility in unexpected flows) than funds with higher assets, which in turn could lead to increased liquidity risk for investors in smaller funds.[926] Moreover, we understand, based on staff outreach, that small funds today are less likely than large funds to employ relatively comprehensive portfolio liquidity classification practices and liquidity risk management practices. Thus, while small funds may face increased liquidity risk, these funds currently may have less effective systems in place to address and mitigate this risk than larger funds. We therefore do not believe it would be appropriate to exempt funds that are small entities from the liquidity risk management requirements of proposed rule 22e–4. We do note, however, that we are proposing a delayed compliance period for proposed rule 22e–4 for funds that are small entities.[927]

We also do not believe that it would be desirable to establish different requirements applicable to funds of different sizes under proposed rule 22e–4 to account for resources available to small entities. We believe that all of the proposed program elements would be necessary for a fund to effectively assess and manage its liquidity risk, and we anticipate that all of the proposed program elements would work together to produce the anticipated investor protection benefits. We do note that the costs associated with proposed rule 22e–4 would vary depending on the fund's particular circumstances, and thus the proposed rule could result in different burdens on funds' resources. In particular, we expect that a fund that pursues an investment strategy that involves greater liquidity risk may have greater costs associated with its liquidity risk management program. However, we believe that it is appropriate to correlate the costs associated with the proposed rule with the level of liquidity risk facing a fund, and not necessarily with the fund's size. Under the proposed rule, a fund would be permitted to customize its liquidity risk management program precisely to reflect the liquidity risks that it typically faces, and that it could face in stressed market conditions. This flexibility in permitting a fund to customize its liquidity risk management program is meant to result in programs whose scope, and related costs and burdens, are appropriate to manage the actual amount of liquidity risk faced by a particular fund. Thus, to the extent a fund that is a small entity faces relatively little liquidity risk, it would incur relatively low costs to comply with proposed rule 22e–4. However, as discussed above, we believe that small funds could generally entail relatively high liquidity risk compared to larger funds, and thus these funds could incur relatively high costs to comply with proposed rule 22e–4.[928]

Similarly, we do not believe that the interest of investors would be served by exempting funds that are small entities from the proposed disclosure and reporting requirements, 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.[929] We also believe that all fund investors would benefit from enhanced Commission monitoring and oversight of the fund industry, which we anticipate would result from the proposed disclosure and reporting requirements. We note that the current disclosure requirements for reports on Form N–1A, and the proposed requirements for reports on proposed Form N–PORT and proposed Form N–CEN, do not distinguish between small entities and other

919 *See supra* notes 801–802 and accompanying text.

920 *See supra* notes 803–804 and accompanying text.

921 *See supra* notes 801–804 and accompanying text.

922 *See supra* note 865 and accompanying text.

923 *See supra* note 800 and accompanying text.

924 *See supra* section V.F.; *see also* note 800 and accompanying text.

925 *See supra* section IV.C.1.b.

926 *See supra* note 727 and accompanying text.

927 *See supra* section III.H.

928 *See supra* note 926 and accompanying text.

929 *See supra* section IV.C.3.b.

funds.[930] However, as discussed above, proposed Form N–PORT has a delayed compliance period for small entities that would file reports on this form, and we are also proposing a delayed compliance period for the amendments to proposed Form N–PORT that we are proposing today.[931]

Finally, we are not exempting funds that are small entities from proposed rule 22c–1(a)(3) because we believe that all funds should be able to use swing pricing as a voluntary tool to mitigate potential shareholder dilution.[932] We do not believe that the potential dilution that proposed rule 22c–1(a)(3) is meant to prevent would affect large funds and their shareholders more significantly than small funds and investors in small funds. Also, because the adoption of swing pricing policies and procedures would be permitted, but not required, under proposed rule 22c–1(a)(3), a fund that is a small entity would not need to incur the costs of compliance with the proposed rule if the fund (and the fund's board) were to determine that the advantages of swing pricing would not outweigh the associated disadvantages, including compliance costs.

G. General Request for Comment

The Commission requests comments regarding this analysis. We request 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 request 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 request comment on the estimated compliance burdens of the proposed liquidity regulations and how they would affect small entities.

VII. Consideration of Impact on the Economy

For purposes of the Small Business Regulatory Enforcement Fairness Act of 1996 (''SBREFA''), the Commission 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:

○ An annual effect on the economy of $100 million or more;

○ A major increase in costs or prices for consumers or individual industries; or

○ Significant adverse effects on competition, investment, or innovation.

We request comment on whether our proposal would be a ''major rule'' for purposes of SBREFA. We solicit comment and empirical data on:

○ The potential effect on the U.S. 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.

VIII. Statutory Authority and Text of Proposed Amendments

The Commission is proposing new rule 22e–4 under the authority set forth in sections 22(c), 22(e) and 38(a) of the Investment Company Act [15 U.S.C. 80a–37(a)]. The Commission is proposing amendments to rule 22c–1 under the authority set forth in sections 22(c) and 38(a) of the Investment Company Act [15 U.S.C. 80a–22(c) and 80a–37(a)]. The Commission is proposing amendments to rule 31a–2 under the authority set forth in section 31(a) of the Investment Company Act [15 U.S.C. 80a–31(a)]. The Commission is proposing amendments to Form N–1A, Regulation S–X, proposed Form N–PORT, and proposed 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, 13, 15, and 23, and 35A thereof [15 U.S.C. 78a *et seq.*], and the Investment Company Act, particularly, sections 8, 30, and 38 thereof [15 U.S.C. 80a *et seq.*].

Text of Rules and Forms

List of Subjects

17 CFR Part 210

Accounting, 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 proposed to be 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, 78*l*, 78m, 78n, 78o(d), 78q, 78u–5, 78w, 78*ll*, 78mm, 80a–8, 80a–20, 80a–29, 80a–30, 80a–31, 80a–37(a), 80b–3, 80b–11, 7202 and 7262, unless otherwise noted.

■ 2. Amend § 210.6–02 by adding paragraphs (e), (f) and (g) to read as follows:

§ 210.6–02 Definition of certain terms.

* * * * *

(e) *Illiquid investment.* The term *illiquid investment* means an investment that is a 15% standard asset, as defined in § 270.22e–4(a)(4) of this chapter.

(f) *Illiquid securities.* The term *illiquid securities* means securities that are 15% standard assets, as defined in § 270.22e–4(a)(4) of this chapter.

(g) *Swing pricing.* The term *swing pricing* shall have the meaning given in § 270.22c–1(a)(3)(v)(C) of this chapter.

■ 3. Section 210.6–03 is further amended, as proposed at 80 FR 33687, June 12, 2015, by adding paragraph (n) to read as follows:

§ 210.6–03 Special rules of general application to registered investment companies and business development companies.

* * * * *

(n) *Swing Pricing.* For a registered investment company that has adopted swing pricing policies and procedures, state in a note the general methods used in determining whether the company's net asset value per share will swing, if the company's net asset value per share has swung during the year, and a general description of the effects of swing pricing on the company's financial statements.

■ 4. Section 210.6–04 is further amended, as proposed at 80 FR 33688, June 12, 2015 by revising item 19 to read as follows:

§ 210.6–04 Balance sheets.

* * * * *

19. *Net assets applicable to outstanding units of capital.* State the

[930] *See* Investment Company Reporting Modernization Release, *supra* note 104, at section IV.F (noting that small entities currently follow the same requirements that large entities do when filing reports on Form N–SAR, Form N–CSR, and Form N–Q, and stating that the Commission believes that establishing different reporting requirements or frequency for small entities (including with respect to proposed Form N–PORT and proposed Form N–CEN) would not be consistent with the Commission's goal of industry oversight and investor protection).

[931] *See supra* section III.H.

[932] *See supra* section IV.C.2.b.

net asset value per share as adjusted pursuant to swing pricing policies and procedures, if applicable.

PART 270—RULES AND REGULATIONS, INVESTMENT COMPANY ACT OF 1940

■ 5. 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.

* * * * *

■ 6. Amend § 270.22c–1 by adding paragraph (a)(3) to read as follows:

§ 270.22c–1 Pricing of redeemable securities for distribution, redemption and repurchase.

(a) * * *

(3) Notwithstanding this paragraph (a), 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 (a)(3)(v)(A) of this section) (a ''fund'') may use swing pricing 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 and redemption activity, provided that it has established and implemented swing pricing policies and procedures in compliance with the paragraphs (a)(3)(i)–(v) of this section.

(i) The fund's swing pricing policies and procedures shall:

(A) Provide that the fund must adjust its net asset value per share by a swing factor, determined pursuant to paragraph (a)(3)(i)(D) of this section, once the level of net purchases into or net redemptions from such fund has exceeded the fund's swing threshold, determined pursuant to paragraph (a)(3)(i)(B) of this section. In determining whether the fund's level of net purchases or net redemptions has exceeded the fund's swing threshold, the person(s) responsible for administering the fund's swing pricing policies and procedures pursuant to paragraph (a)(3)(ii)(B) of this section: shall be permitted to make such determination on the basis of information obtained after reasonable inquiry; and shall exclude any purchases or redemptions that are made in kind and not in cash.

(B) Specify the fund's swing threshold to be used pursuant to paragraph (3)(i)(A) of this section, considering:

(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 assets;

(3) The fund's holdings of cash and cash equivalents, as well as borrowing arrangements and other funding sources; and

(4) The costs associated with transactions in the markets in which the fund invests.

(C) Provide for the periodic review, no less frequently than annually, of the fund's swing threshold, considering the factors set forth in paragraph (a)(3)(i)(B) of this section.

(D) Specify how the swing factor to be used pursuant to paragraph (a)(3)(i)(A) of this section shall be determined, and whether the swing factor would be subject to any upper limit. The determination of the swing factor, as well as any upper limit on the swing factor, must take into account:

(1) Any 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 to adjust the fund's net asset value per share, including any market impact costs, spread costs, and transaction fees and charges arising from asset purchases or asset sales to satisfy those purchases or redemptions, as well as any borrowing-related costs associated with satisfying redemptions; and

(2) The value of assets purchased or sold by the fund as a result of net purchases or net redemptions that occur on the day the swing factor is used to adjust the fund's net asset value per share, if that information would not be reflected in the current net asset value of the fund computed that day.

(ii) The fund's swing pricing policies and procedures shall be subject to the following approval and oversight requirements:

(A) The fund's board of directors, including a majority of directors who are not interested persons of the fund, shall approve the swing pricing policies and procedures (including the fund's swing threshold, and any swing factor upper limit specified under the fund's swing pricing policies and procedures), as well as any material change to the policies and procedures (including any change to the fund's swing threshold, a change to any swing factor upper limit specified under the fund's swing pricing policies and procedures, or any decision to suspend or terminate the fund's swing pricing policies and procedures).

(B) The fund's board of directors shall designate the fund's investment adviser or officers responsible for administering the swing pricing policies and procedures, and for determining the swing factor that will be used each time the swing threshold is breached; provided that determination of the swing factor must be reasonably segregated from the portfolio management function of the fund.

(iii) The fund shall maintain a written copy of the policies and procedures adopted by the fund under this paragraph (a)(3) that are in effect, or at any time within the past six years were in effect, in an easily accessible place.

(iv) 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 may use swing pricing to adjust the master fund's net asset value per share, pursuant to the requirements set forth in this paragraph (a)(3).

(v) For purposes of this paragraph (a)(3):

(A) *Exchange-traded fund* means an open-end management investment company or a class thereof, the shares of which are traded on a national securities exchange, and that operates pursuant to an exemptive order granted by the Commission or in reliance on an exemptive rule adopted by the Commission.

(B) *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 procedures, by which a fund adjusts its net asset value per share when the level of net purchases into or net redemptions from the fund has exceeded the fund's swing threshold.

(C) *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 this paragraph (a)(3).

(D) *Swing threshold* means the amount of net purchases into or net redemptions from a fund, expressed as a percentage of the fund's net asset value, that triggers the initiation of swing pricing.

(E) *Transaction fees and charges* means brokerage commissions, custody fees, and any other charges, fees, and taxes associated with portfolio asset purchases and sales.

* * * * *

■ 7. 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) *15% standard asset* means 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. For purposes of this definition, the fund does not need 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.

(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.

(6) *Less liquid asset* means any position of a fund in an asset (or portion of the fund's position in an asset) that is not a three-day liquid asset. In determining whether a position or portion of a position in an asset is a less liquid asset, a fund must take into account the factors set forth in paragraph (b)(2)(ii) of this section, to the extent applicable.

(7) *Liquidity risk* means the risk that the 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 net asset value.

(8) *Three-day liquid asset* means any cash held by a fund and any position of a fund in an asset (or portion of the fund's position in an asset) that the fund believes is convertible into cash within three business days at a price that does not materially affect the value of that asset immediately prior to sale. In determining whether a position or portion of a position in an asset is a three-day liquid asset, a fund must take into account the factors set forth in paragraph (b)(2)(ii) of this section, to the extent applicable.

(9) *Three-day liquid asset minimum* means the percentage of the fund's net assets to be invested in three-day liquid assets pursuant to section (b)(2)(iv)(A) and (C) of this section.

(b) *Adoption and implementation of liquidity risk management program.*

(1) Program requirement. Each fund shall adopt and implement a written liquidity risk management program (''program'') that is reasonably designed to assess and manage the fund's liquidity risk. The program shall include policies and procedures incorporating the elements of paragraphs (b)(2)(i) through (iv) of this section. The program shall be administered by the fund's investment adviser, or an officer or officers of the fund, but may not be administered solely by portfolio managers of the fund.

(2) Required program elements. Each fund must:

(i) Classify and engage in an ongoing review of each of the fund's positions in a portfolio asset (or portions of a position in a particular asset) based on the following categories of number of days in which it is determined, using information obtained after reasonable inquiry, that the fund's position in the asset (or portion thereof) would be convertible to cash at a price that does not materially affect the value of that asset immediately prior to sale:

(A) Convertible to cash within 1 business day;

(B) Convertible to cash within 2–3 business days;

(C) Convertible to cash within 4–7 calendar days;

(D) Convertible to cash within 8–15 calendar days;

(E) Convertible to cash within 16–30 calendar days; and

(F) Convertible to cash in more than 30 calendar days.

Note to paragraph (b)(2)(i): In situations in which the period to convert a position to cash could be viewed either as two-to-three business days or four-to-seven calendar days, a fund should classify the position based on the shorter period (*i.e.,* two-to-three business days, not four-to-seven calendar days).

(ii) For purposes of classifying and reviewing the liquidity of a fund's position in a portfolio asset (or portion thereof) under paragraph (b)(2)(i) of this section, take into account the following factors, to the extent applicable, with respect to the asset (or similar asset(s), to the extent that data concerning the portfolio asset is not available to the fund):

(A) 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;

(B) 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);

(C) Volatility of trading prices for the asset;

(D) Bid-ask spreads for the asset;

(E) Whether the asset has a relatively standardized and simple structure;

(F) For fixed income securities, maturity and date of issue;

(G) Restrictions on trading of the asset and limitations on transfer of the asset;

(H) 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. Analysis of position size should consider the extent to which the timing of disposing of the position could create any market value impact; and

(I) Relationship of the asset to another portfolio asset.

(iii) Assess and periodically review the fund's liquidity risk, considering the fund's:

(A) Short-term and long-term cash flow projections, taking into account the following considerations:

(*1*) Size, frequency, and volatility of historical purchases and redemptions of fund shares during normal and stressed periods;

(*2*) Fund's redemption policies;

(*3*) Fund's shareholder ownership concentration;

(*4*) Fund's distribution channels; and

(*5*) Degree of certainty associated with the fund's short-term and long-term cash flow projections.

(B) Investment strategy and liquidity of portfolio assets;

(C) Use of borrowings and derivatives for investment purposes; and

(D) Holdings of cash and cash equivalents, as well as borrowing arrangements and other funding sources.

(iv) Manage the fund's liquidity risk, including that the fund will:

(A) Determine the fund's three-day liquid asset minimum, considering the factors specified in paragraphs (b)(2)(iii)(A) through (D) of this section;

(B) Periodically review, no less frequently than semi-annually, the adequacy of the fund's three-day liquid asset minimum, considering the factors incorporated in paragraphs (b)(2)(iii)(A) through (D) of this section;

(C) Not acquire any less liquid asset if, immediately after the acquisition, the fund would have invested less than its three-day liquid asset minimum in three-day liquid assets;

(D) Not acquire any 15% standard asset if, immediately after the acquisition, the fund would have invested more than 15% of its total assets in 15% standard assets; and

(E) Establish 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.

(3) Board approval and oversight of the program.

(i) The fund shall obtain initial approval of the liquidity risk management program (including the fund's three-day liquid asset minimum), as well as any material change to the program (including a change to the fund's three-day liquid asset minimum), from the fund's board of directors, including a majority of directors who are not interested persons of the fund.

(ii) The fund's board of directors, including a majority of directors who are not interested persons of the fund, shall review, no less frequently than annually, a written report prepared by the fund's investment adviser or officers administering the liquidity risk management program that describes the adequacy of the fund's liquidity risk management program, including the fund's three-day liquid asset minimum, and the effectiveness of its implementation.

(iii) The fund shall designate the fund's investment adviser or officers (which may not be solely portfolio managers of the fund) responsible for administering the policies and procedures incorporating the elements of paragraphs (b)(2)(i) through (iv) of this section, whose designation must be approved by the fund's board of directors, including a majority of the directors who are not interested persons of the fund.

(c) *Recordkeeping.* The fund must maintain:

(1) A written copy of the policies and procedures adopted by the fund under paragraphs (b)(1) of this section that are in effect, or at any time within the past five years were in effect, in an easily accessible place;

(2) Copies of any materials provided to the board of directors in connection with its approval under paragraph (b)(3)(i) of this section, and written reports provided to the board of directors under paragraph (b)(3)(ii) 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

(3) A written record of how the three-day liquid asset minimum, and any adjustments thereto, were determined, including assessment of the factors incorporated in paragraphs (b)(2)(iii)(A) through (D) 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 three-day liquid asset minimum.

■ 8. Section 270.31a–2 is amended 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 (5) through (12) of § 270.31a–1(b) 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(a)(3), 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

■ 9. 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), 78*l*, 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.

* * * * *

■ 10. Amend Form N–1A (referenced in 274.11A) by:

■ a. In Item 6 adding paragraph (d);

■ 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;

■ c. In Item 11 adding new paragraph (c)(7) and paragraph (c)(8);

■ d. In Item 13, adding ''Capital Adjustments Due to Swing Pricing'' after ''Total Distributions'' to the list in paragraph (a);

■ e. In Item 13, Instruction 2., adding paragraphs (d) and (e);

■ f. In Item 13, Instruction 3., revising paragraphs (a) and (d);

■ g. In Item 26(b)(1), adding a sentence to the end of Instruction 4.

■ h. In Item 26(b)(2), adding a sentence to the end of Instruction 6.

■ i. In Item 26(b)(3), adding a sentence to the end of Instruction 6.

■ j. In Item 28, redesignating paragraphs (h), (i) (j), (k), (l), (m), (n), (o) and (p) as paragraphs (i), (j), (k), (l), (m), (n), (o), (p), and (q) respectively; and

■ k. In Item 28, adding new paragraph (h).

Note: The text of Form N–1A does not, and this amendment 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, an explanation of the circumstances under which it will use swing pricing and the effects of using swing pricing. 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 investment companies in which the Fund invests, and that the prospectuses for those companies explain the circumstances under which those companies will use swing pricing and the effects of using swing pricing.

* * * * *

Item 11. Shareholder Information

(c) * * *

(7) The number of days following receipt of shareholder redemption requests in which the fund will pay redemption proceeds to redeeming shareholders. If the number of days differs by distribution channel, disclose the number of days for each channel.

(8) The methods that the Fund uses 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).

* * * * *

Item 13. Financial Highlights Information

* * * * *

Instructions * * *

2. *Per Share Operating Performance.* * * *

(d) The amount shown at the Capital Adjustments Due to Swing Pricing caption should include the per share impact of any amounts retained by the

Fund pursuant to its swing pricing policies and procedures, if applicable.

(e) The amounts shown at the Net Asset Value, End of Period and Net Asset Value, Beginning of Period captions should be the Fund's net asset value per share as adjusted pursuant to its swing pricing policies and procedures, if applicable.

3. Total Return.

(a) Assume an initial investment made at the net asset value calculated on the last business day before the first day of each period shown, as adjusted pursuant to the Fund's swing pricing policies and procedures, if applicable.

* * *

(d) Assume a redemption at the price calculated on the last business day of each period shown, as adjusted pursuant to the Fund's swing pricing policies and procedures, if applicable.

Item 26. Calculation of Performance Data

* * * * *

(b)

* * *

(1) *Average Annual Total Return Quotation.*

* * *

Instructions * * *

4. * * * The ending redeemable value should assume a value as adjusted pursuant to swing pricing policies and procedures, if applicable.

* * *

(2) *Average Annual Total Return (After Taxes on Distributions) Quotation.*

* * *

Instructions * * *

6. * * * The ending value should assume a value as adjusted pursuant to swing pricing policies and procedures, if applicable.

(3) *Average Annual Total Return (After Taxes on Distributions and Redemption) Quotation.*

* * *

Instructions * * *

6. * * * The ending value should assume a value as adjusted pursuant to swing pricing policies and procedures, if applicable.

Item 28. Exhibits

* * * * *

(h) Credit Agreements. Agreements relating to lines of credit for the benefit of the Fund.

Instruction: The specific fees paid in connection with the credit agreements need not be disclosed.

■ 11. Further amend Form N–CEN (referenced in § 274.101) as proposed at 80 FR 33699, June 12, 2015 by:

■ a. In Part C, redesignating Items 44 through 79 as Items 45 through 80;

■ b. In Part C, adding Item 44;

■ c. In Part E, adding paragraph g. to newly redesignated Item 60.

Part C. Additional Questions for Management Investment Companies

* * *

Item 44. Lines of credit, interfund lending and borrowing, and swing pricing. For open-end management investment companies, respond to the following:

a. Does the Fund have available a committed line of credit? [Yes/No]

i. If yes, what size is the line of credit? [insert dollar amount]

ii. If yes, with which institution(s) is the line of credit? [list name(s)]

iii. If yes, is the line of credit just for the Fund, or is it shared among multiple funds? [sole/shared]

1. If shared, list names of other funds that may use the line of credit. [list names and SEC File numbers]

iv. If yes, did the Fund draw on the line of credit this period? [Yes/No]

v. 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]

vi. 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]

i. If yes, what was the average amount of the interfund loan when the loan was outstanding? [insert dollar amount.]

ii. If yes, what was the number of days that the interfund loan was outstanding? [insert amount]

c. Did the Fund engage in interfund borrowing? [Yes/No]

i. If yes, what was the average amount of the interfund loan when the loan was outstanding? [insert dollar amount.]

ii. If yes, what was the number of days that the interfund loan was outstanding? [insert amount]

d. Did the Fund (if not a Money Market Fund, Exchange-Traded Fund, or Exchange-Traded Managed Fund) engage in swing pricing? [Yes/No]

Part E. Additional Questions for Exchange-Traded Funds and Exchange-Traded Managed Funds

* * *

Item 60.

* * *

g. 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]

■ 12. Amend Form N–PORT (referenced in 274.150), as proposed at 80 FR 33712, June 12, 2015 by:

■ a. In the General Instructions, removing the definition of ''Illiquid Asset;''

■ b. In the General Instructions, adding a definition of ''15% Standard Asset.''

■ c. In the General Instructions, adding a definition of ''Three-Day Liquid Asset Minimum;''

■ d. In Part B., adding Item B.7;

■ e. In Part C, revising Item C.7; and

■ f. In Part C, adding Item C.13

The revisions and additions read as follows:

E. Definitions

* * *

15% Standard Asset has the meaning defined in rule 22e–4(a)(4).

Three-Day Liquid Asset Minimum has the meaning defined in rule 22e–4(a)(9).

* * *

Part B: Information about the Fund

* * *

Item B.7 Liquidity information. For open-end investment companies, provide the Three-Day Liquid Asset Minimum.

* * *

Part C: Schedule of Portfolio Investments

* * *

Item C.7 For portfolio investments of registered open-end management investment companies, is the investment a 15% Standard Asset? [Y/N]

* * *

Item C.13 For portfolio investments of open-end management investment companies, indicate the liquidity classification for each portfolio asset (or portion thereof) among the following categories as specified in rule 22e–4. For portfolio assets with multiple liquidity classifications, indicate the dollar amount attributable to each classification:

Convertible to cash within 1 business day

Convertible to cash within 2–3 business days

Convertible to cash within 4–7 calendar days

Convertible to cash within 8–15 calendar days

Convertible to cash within 16–30 calendar days

Convertible to cash in more than 30 calendar days

* * * * *

By the Commission.

Dated: September 22, 2015.

Brent J. Fields,

Secretary.

[FR Doc. 2015–24507 Filed 10–14–15; 8:45 am]

BILLING CODE 8011–01–P