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SECURITIES AND EXCHANGE COMMISSION

17 CFR Parts 270 and 274

[Release No. IC-34441; File No. S7-22-21]

RIN 3235-AM80

Money Market Fund Reforms

AGENCY: Securities and Exchange Commission.

ACTION: Proposed rule.

SUMMARY: The Securities and Exchange Commission ("Commission") is proposing amendments to certain rules that govern money market funds under the Investment Company Act of 1940. The proposed amendments are designed to improve the resilience and transparency of money market funds. The proposal would remove the liquidity fee and redemption gate provisions in the existing rule, which would eliminate an incentive for preemptive redemptions from certain money market funds and could encourage funds to more effectively use their existing liquidity buffers in times of stress. The proposal would also require institutional prime and institutional tax-exempt money market funds to implement swing pricing policies and procedures to require redeeming investors to bear the liquidity costs of their decisions to redeem. The Commission is also proposing to increase the daily liquid asset and weekly liquid asset minimum liquidity requirements, to 25% and 50% respectively, to provide a more substantial buffer in the event of rapid redemptions. The proposal would amend certain reporting requirements on Forms N-MFP and N-CR to improve the availability of information about money market funds, as well as make certain conforming changes to Form N-1A to reflect our proposed changes to the regulatory framework for these funds. In addition, the Commission is proposing

rule amendments to address how money market funds with stable net asset values should handle a negative interest rate environment. Finally, the Commission is proposing rule amendments to specify how funds must calculate weighted average maturity and weighted average life.

DATES: Comments should be received on or before **[INSERT DATE 60 DAYS AFTER DATE OF PUBLICATION IN FEDERAL REGISTER]**.

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

Electronic comments:

- Use the Commission's internet comment form (https://www.sec.gov/rules/submitcomments.htm).

Paper comments:

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

All submissions should refer to File Number S7-22-21. This file number should be included on the subject line if email is used. To help us process and review your comments more efficiently, please use only one method. The Commission will post all comments on the Commission's website (http://www.sec.gov/rules/proposed.shtml). Comments are also available for website viewing and printing in the Commission's Public Reference Room, 100 F Street NE, Washington, DC 20549, on official business days between the hours of 10 a.m. and 3 p.m. Operating conditions may limit access to the Commission's public reference room. All comments received will be posted without change. Persons submitting comments are cautioned that we do not redact or edit

personal identifying information from comment submissions. You should submit only information that you wish to make available publicly.

Studies, memoranda, or other substantive items may be added by the Commission or staff to the comment file during this rulemaking. A notification of the inclusion in the comment file of any such materials will be made available on the Commission's website. To ensure direct electronic receipt of such notifications, sign up through the "Stay Connected" option at www.sec.gov to receive notifications by email.

FOR FURTHER INFORMATION CONTACT: Blair Burnett, David Driscoll, Adam Lovell, or James Maclean, Senior Counsels; Angela Mokodean, Branch Chief; or Brian Johnson, Assistant Director at (202) 551-6792, Investment Company Regulation Office; Keri Riemer, Senior Counsel; Penelope Saltzman, Senior Special Counsel; or Thoreau Bartmann, Assistant Director, Chief Counsel's Office, (202) 551-6825; Viktoria Baklanova, Analytics Office, Division of Investment Management, Securities and Exchange Commission, 100 F Street NE, Washington, DC 20549-8549.

SUPPLEMENTARY INFORMATION: The Commission is proposing for public comment amendments to 17 CFR 270.2a-7 (rule 2a-7) and 17 CFR 270.31a-2 (rule 31a-2) under the Investment Company Act of 1940,[1] Form N-1A under the Investment Company Act and the Securities Act,[2] and Forms N-MFP and N-CR under the Investment Company Act.

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[1] 15 U.S.C. 80a *et seq.*

[2] 15 U.S.C. 77a *et seq.*

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I. INTRODUCTION

Money market funds are a type of mutual fund registered under the Investment Company Act of 1940 ("Act") and regulated pursuant to rule 2a-7 under the Act.[3] Money market funds are managed with the goal of providing principal stability by investing in high-quality, short-term debt securities, such as Treasury bills, repurchase agreements, or commercial paper, and whose value does not fluctuate significantly in normal market conditions. Money market fund investors receive dividends that reflect prevailing short-term interest rates and have access to daily liquidity, as money market fund shares are redeemable on demand. The combination of limited principal volatility, diversification of portfolio securities, payment of short-term yields, and liquidity has made money market funds popular cash management vehicles for both retail and institutional investors. Money market funds also provide an important source of short-term financing for businesses, banks, and Federal, state, municipal, and Tribal governments.

In March 2020, in connection with an economic shock from the onset of the COVID-19 pandemic, certain types of money market funds had significant outflows as investors sought to preserve liquidity.[4] We are proposing to amend rule 2a-7 to remove provisions in the rule that appear to have contributed to investors' incentives to redeem from certain funds during this period. For the category of funds that experienced the heaviest outflows in March 2020 and in prior periods of market stress, we are proposing a new swing pricing requirement that is designed to mitigate the dilution and investor harm that can occur today when other investors redeem—and remove liquidity—from these

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[3] Money market funds are also sometimes called "money market mutual funds" or "money funds."

[4] *See infra* Section I.B (discussing these events in more detail).

funds, particularly when certain markets in which the funds invest are under stress and effectively illiquid. We are also proposing to increase liquidity requirements to better equip money market funds to manage significant and rapid investor redemptions. In addition to these reforms, we are proposing changes to improve transparency and facilitate Commission monitoring of money market funds. We also propose to clarify how certain money market funds would operate if interest rates became negative. Finally, we propose to specify how funds must calculate weighted average maturity and weighted average life.[5]

A. Types of Money Market Funds and Existing Regulatory Framework

Different types of money market funds exist to meet differing investor needs. "Prime money market funds" hold a variety of taxable short-term obligations issued by corporations and banks, as well as repurchase agreements and asset-backed commercial paper.[6] "Government money market funds," which are currently the largest category of money market fund, almost exclusively hold obligations of the U.S. Government, including obligations of the U.S. Treasury and Federal agencies and instrumentalities, as well as repurchase agreements collateralized by government securities.[7] Compared to prime funds, government money market funds generally offer greater safety of principal

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[5] We have consulted and coordinated with the Consumer Financial Protection Bureau regarding this proposed rulemaking in accordance with section 1027(i)(2) of the Dodd-Frank Wall Street Reform and Consumer Protection Act.

[6] Commission staff regularly publish comprehensive data regarding money market funds on the Commission's website, *available at* https://www.sec.gov/divisions/investment/mmf-statistics.shtml. This data includes information about the monthly holdings of prime money market funds by type of security.

[7] Some government money market funds generally invest at least 80% of their assets in U.S. Treasury obligations or repurchase agreements collateralized by U.S. Treasury securities and are called "Treasury money market funds."

but historically have paid lower yields. "Tax-exempt money market funds" (or "municipal money market funds") primarily hold obligations of state and local governments and their instrumentalities, and pay interest that is generally exempt from Federal income tax for individual taxpayers.[8] Within the prime and tax-exempt money market fund categories, some funds are "retail" funds and others are "institutional" funds. Retail money market funds are held only by natural persons, and institutional funds can be held by a wider range of investors, such as corporations, small businesses, and retirement plans.[9]

To some extent, different types of money market funds are subject to different requirements under rule 2a-7. One primary example is a fund's approach to valuation and pricing. Government and retail money market funds can rely on valuation and pricing techniques that generally allow them to sell and redeem shares at a stable share price, typically $1.00, without regard to small variations in the value of the securities in their portfolios.[10] If the fund's stable share price and market-based value per share deviate by

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[8] In this release, we also use the term "non-government money market fund" to refer to prime and tax-exempt money market funds.

[9] A retail money market fund is defined as a money market fund that has policies and procedures reasonably designed to limit all beneficial owners of the fund to natural persons. *See* 17 CFR 270.2a-7(a)(21) (rule 2a-7(a)(21)).

[10] Under the amortized cost method, a government or retail money market fund's portfolio securities generally are valued at cost plus any amortization of premium or accumulation of discount, rather than at their value based on current market factors. The penny rounding method of pricing permits such a money market fund when pricing its shares to round the fund's NAV to the nearest 1% (*i.e.*, the nearest penny). Together, these valuation and pricing techniques create a "rounding convention" that permits these money market funds to sell and redeem shares at a stable share price without regard to small variations in the value of portfolio securities. *See* 17 CFR 270.2a-7(c)(i), (g)(1), and (g)(2). *See generally* 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)] ("1983 Adopting Release"). Throughout this release, we generally use the term

more than one-half of 1%, the fund's board may determine to adjust the fund's share price below $1.00, which is also colloquially referred to as "breaking the buck."[11] Institutional prime and institutional tax-exempt money market funds, however, are required to use a "floating" net asset value per share ("NAV") to sell and redeem their shares, based on the current market-based value of the securities in their underlying portfolios rounded to the fourth decimal place (*e.g.*, $1.0000). These institutional funds are required to use a floating NAV because their investors have historically made the heaviest redemptions in times of market stress and are more likely to act on the incentive to redeem if a fund's stable price per share is higher than its market-based value.[12]

As of July 2021, there were approximately 318 money market funds registered with the Commission, and these funds collectively held over $5.0 trillion of assets.[13] The vast majority of these assets are held by government money market funds ($4.0 trillion), followed by prime money market funds ($875 billion) and tax-exempt money market funds ($101 billion).[14] Slightly less than half of prime money market funds' assets are held by publicly offered institutional funds, with the remaining assets almost evenly split

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"stable share price" or "stable NAV" to refer to the stable share price that these money market funds seek to maintain and compute for purposes of distribution, redemption, and repurchases of fund shares.

[11] These funds must compare their stable share price to the market-based value per share of their portfolios at least daily.

[12] *See* Money Market Fund Reform; Amendments to Form PF, Investment Company Act Release No. 31166 (July 23, 2014) [79 FR 47735 (Aug. 14, 2014)] ("2014 Adopting Release"). As stated in the 2014 Adopting Release, this incentive exists largely in prime money market funds because these funds exhibit higher credit risk that makes declines in value more likely (compared to government money market funds).

[13] Money Market Fund Statistics, Form N-MFP Data, period ending July 2021, *available at*: https://www.sec.gov/files/mmf-statistics-2021-07.pdf. This data excludes "feeder" funds to avoid double counting assets.

[14] *Id*.

between retail prime money market funds and institutional prime money market funds that are not offered to the public.[15] The vast majority of tax-exempt money market fund assets are held by retail funds.

The Commission adopted rule 2a-7 in 1983 and has amended the rule several times over the years, including in response to market events that have highlighted money market fund vulnerabilities.[16] For example, during 2007-2008, some prime money market funds were exposed to substantial losses from certain of their holdings.[17] At that time, one money market fund "broke the buck" and suspended redemptions, and many fund sponsors provided financial support to their funds.[18] These events, along with general turbulence in the financial markets, led to a run primarily on institutional prime money market funds and contributed to severe dislocations in short-term credit markets. The U.S. Department of the Treasury and the Board of Governors of the Federal Reserve System subsequently announced intervention in the short-term markets that was effective in containing the run on prime money market funds and providing additional liquidity to money market funds.[19]

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15 Some asset managers establish privately offered money market funds to manage cash balances of other affiliated funds and accounts.

16 *See* 1983 Adopting Release, *supra* footnote 10; *see also infra* footnote 20.

17 For a more detailed account of these events, see Money Market Fund Reform, Investment Company Act Release No. 28807 (June 30, 2009) [74 FR 32688 (July 8, 2009)], at section I.D.

18 *See id.* at paragraphs accompanying nn.41 and 44. At this time, all money market funds generally were permitted to maintain stable prices per share.

19 The Treasury Department's Temporary Guarantee Program for Money Market Funds temporarily guaranteed certain investments in money market funds that participated in the program. The Federal Reserve Board's Asset-Backed Commercial Paper Money Market Mutual Fund Liquidity Facility extended credit to U.S. banks and bank holding companies to finance their purchases of high-quality asset-backed commercial paper from money market funds. *See* Press Release, Treasury Department, Treasury Announces

After the events of the 2008 financial crisis, the SEC adopted a number of amendments to its money market fund regulations in 2010 and 2014.[20] In 2010, the Commission adopted amendments to rule 2a-7 that, among other things, for the first time required that money market funds maintain liquidity buffers in the form of specified levels of daily and weekly liquid assets.[21] The amendments required that taxable money market funds have at least 10% of their assets in cash, U.S. Treasury securities, or securities that convert into cash (*e.g.*, mature) within one day ("daily liquid assets"), and that all money market funds have at least 30% of assets in cash, U.S. Treasury securities, certain other government securities with remaining maturities of 60 days or less, or securities that convert into cash within one week ("weekly liquid assets").[22] These liquidity buffers provide a source of internal liquidity and are intended to help funds withstand high redemptions during times of market illiquidity. The 2010 amendments also increased transparency about a money market fund's holdings by introducing monthly Form N-MFP reporting requirements and website posting requirements. In addition, the Commission further limited the maturity of a fund's portfolio, including by shortening the permitted weighted average portfolio maturity and introducing a separate

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Guaranty Program for Money Market Funds (Sept. 19, 2008), *available at* https://www.treasury.gov/press-center/press-releases/Pages/hp1161.aspx; Press Release, Federal Reserve Board, Federal Reserve Board Announces Two Enhancements to its Programs to Provide Liquidity to Markets (Sept. 19, 2008), *available at* https://www.federalreserve.gov/newsevents/pressreleases/monetary20080919a.htm.

[20] Money Market Fund Reform, Investment Company Act Release No. 29132 (Feb. 23, 2010) [75 FR 10060 (Mar. 4, 2010)] ("2010 Adopting Release"); 2014 Adopting Release, *supra* footnote 12.

[21] 2010 Adopting Release, *supra* footnote 20. *See* rule 17 CFR 270.2a-7(c)(5)(ii) and (iii).

[22] *See* 17 CFR 270.2a-7(a)(8) (rule 2a-7(a)(8)) (defining "daily liquid assets") and 17 CFR 270.2a-7(a)(28) (rule 2a-7(a)(28)) (defining "weekly liquid assets").

weighted average life to limit the portion of a fund's portfolio held in longer-term adjustable rate securities.

In 2014, the Commission further amended the rules that govern money market funds. In these amendments the Commission provided the boards of directors of non-government money market funds with new tools to stem heavy redemptions by giving them discretion to impose a liquidity fee or temporary suspension of redemptions (*i.e.*, a gate) if a fund's weekly liquid assets fall below 30%. These amendments also require all non-government money market funds to impose a liquidity fee if the fund's weekly liquid assets fall below 10%, unless the fund's board determines that imposing such a fee is not in the best interests of the fund. Additionally, in 2014 the Commission removed the valuation exemption that permitted institutional non-government money market funds to maintain a stable NAV, and required those funds to transact at a floating NAV. The amendments provided guidance related to amortized cost valuation, as well as introduced requirements for strengthened diversification of money market funds' portfolios and enhanced stress testing. The Commission also introduced a requirement that money market funds report certain significant events on Form N-CR and made other amendments to improve transparency, including additional website posting requirements and amendments to Form N-MFP.

Following the 2014 amendments, government money market funds grew substantially, while prime money market funds diminished in size, as shown in the chart below.[23]

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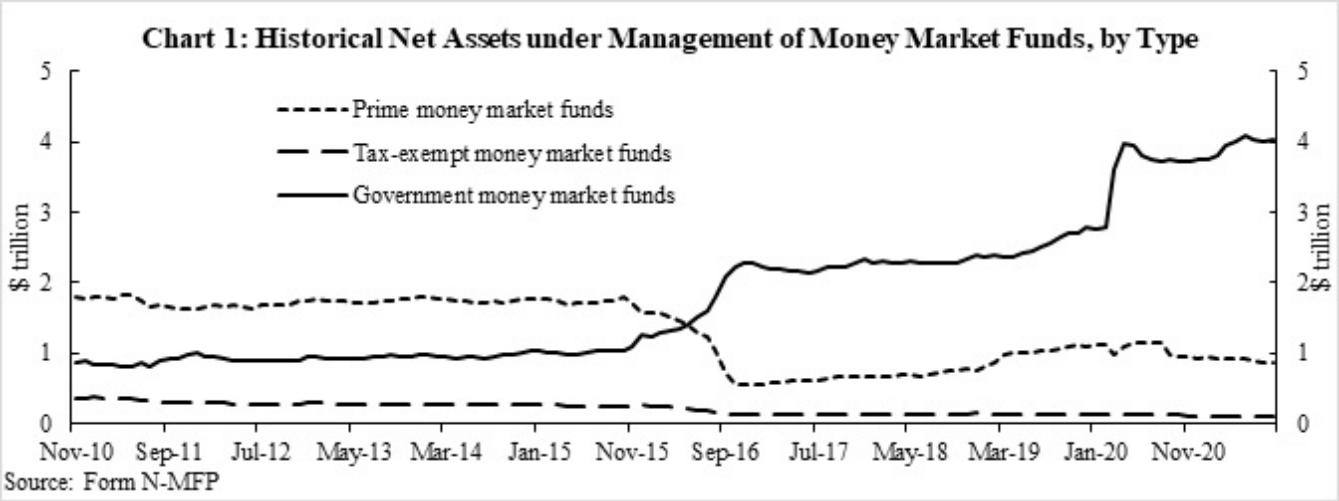
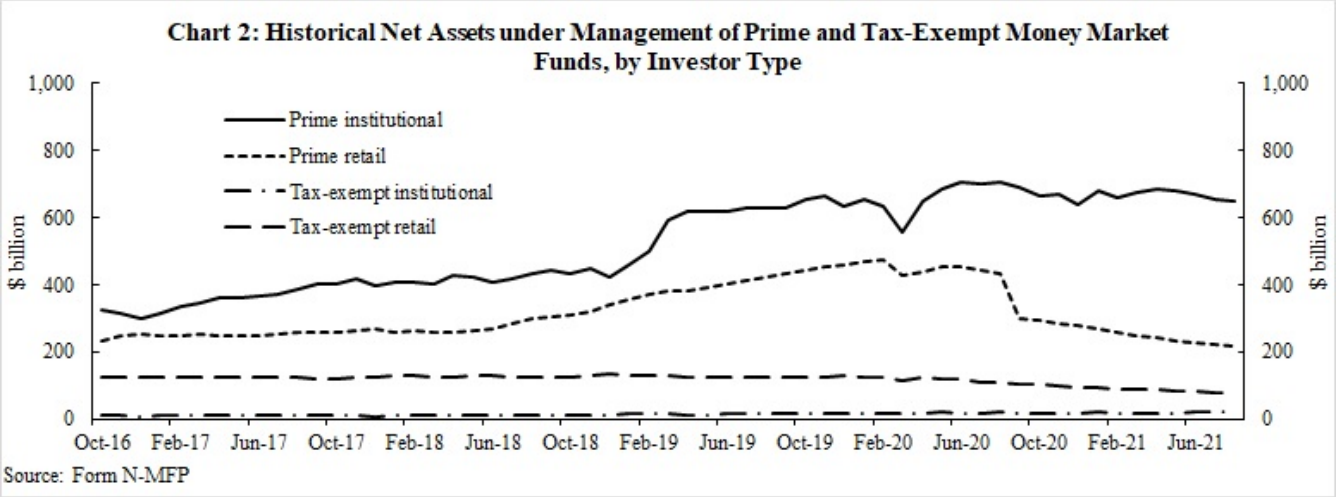
[23] While the Commission adopted the amendments in 2014, the compliance date for the floating NAV requirement for institutional prime and institutional tax-exempt funds and for the fee and gate provisions for all prime and tax-exempt funds was October 14, 2016.



The chart below depicts the distribution between retail and institutional net assets in both prime and tax-exempt funds beginning in October 2016.[24]



Finally, Table 1 below depicts the key requirements currently applicable to each type of money market fund.

Table 1: Current Requirements for Money Market Funds*

	Government money market	Prime money market funds	Tax-exempt money market funds

[24] The 2014 amendments introduced a regulatory definition of a retail money market fund and implemented it in October 2016. Data on institutional and retail prime and tax-exempt money market funds prior to this time may not be fully comparable with current data and, thus, Chart 2 covers a period beginning in October 2016.

	funds	Institutional	Retail	Institutional	Retail
Fee and gate provisions		X	X	X	X
Permitted to maintain a stable NAV	X		X		X
Daily liquid asset requirement	X	X	X		
Weekly liquid asset requirement	X	X	X	X	X
Maturity limitations	X	X	X	X	X
Forms N-MFP and N-CR reporting requirements	X	X	X	X	X

*Table 1 covers the requirements highlighted in this discussion but is not a comprehensive overview of all requirements that apply to money market funds.

B. March 2020 Market Events

In March 2020, growing economic concerns about the impact of the COVID-19 pandemic led investors to reallocate their assets into cash and short-term government securities.[25] These heavy asset flows placed stress on short-term funding markets.[26] For instance, commercial paper and certificates of deposit markets in which prime money market funds and other participants invest became "frozen" in March 2020, making it more difficult to sell these instruments, which have limited secondary trading even in normal times.[27] Institutional investors, in particular, sought highly liquid investments, including government money market funds.[28] In contrast, institutional prime and tax-

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[25] *See* SEC Staff Report on U.S. Credit Markets Interconnectedness and the Effects of the COVID-19 Economic Shock (Oct. 2020) ("SEC Staff Interconnectedness Report") at 2, *available at* https://www.sec.gov/files/US-Credit-Markets_COVID-19_Report.pdf.

[26] Notably, this market stress in March 2020, including its impact on money market funds, was more of a liquidity event than in 2008. In 2008 there were heightened concerns regarding the credit quality of some money market funds' underlying holdings.

[27] *See* SEC Staff Interconnectedness Report, *supra* footnote 25, at 23.

[28] More specifically, government money market funds had record inflows of $838 billion in March 2020 and an additional $347 billion of inflows in April 2020. *See id.* at 25.

exempt money market funds experienced outflows beginning the week of March 9, 2020, which accelerated the following week.[29] Outflows from retail prime and tax-exempt funds began the week of March 16, a week after outflows in institutional funds began. Outflows from some publicly offered institutional prime funds as a percentage of fund size exceeded those in the September 2008 crisis, although the outflows in dollar amounts were much smaller in March 2020, due in part to the significant reductions in the size of prime money market funds that occurred between September 2008 and March 2020.

During the two-week period of March 11 to 24, publicly offered institutional prime funds had a 30% redemption rate (about $100 billion), which included outflows of approximately 20% of assets during the week of March 20 alone.[30] The largest weekly redemption rate from a single publicly offered institutional prime fund during this period was around 55%, and the largest daily outflow was about 26%. In contrast, privately offered institutional prime funds had redemptions of 3% of assets during the week of March 20, and lost approximately 6% of their total assets ($17 billion) from March 9 through 20.

Retail money market funds had lower levels of outflows than publicly offered institutional funds. Retail prime funds had outflows of approximately 11% of their total assets ($48 billion) in the last three weeks of March 2020. Outflows from tax-exempt money market funds, which are mostly retail funds, were approximately 8% of their total assets ($12 billion) from March 12 through 25.

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29 *Id.*

30 This discussion of the size of outflows in March 2020 is based on the Report of the President's Working Group on Financial Markets, Overview of Recent Events and Potential Reform Options for Money Market Funds, *infra* footnote 39, and our additional analysis.

As prime money market funds experienced heavy redemptions, their holdings of weekly liquid assets generally declined. However, these declines were not commensurate with the level of redemptions. Available data suggests that managers were actively managing their portfolios to avoid having weekly liquid assets below 30% of their total assets by, in some cases, selling other portfolio securities to meet redemptions. Available evidence, supported by many comment letters in response to the Commission's request for comment discussed below, suggested that funds' incentives to maintain weekly liquid assets above the 30% threshold were directly tied to investors' concerns about the possibility of redemption gates and liquidity fees under our rules if a fund drops below that threshold.[31] Based on Form N-MFP data providing the size of each fund's weekly liquid assets as of the end of each week, between March 13 and March 20, the weekly liquid assets of most money market funds changed by less than 5%. In particular, institutional prime money market funds that were closer to the 30% weekly liquid asset threshold tended to increase their weekly liquid assets, while those with higher weekly liquid assets tended to decrease their weekly liquid assets.[32] One institutional prime fund's weekly liquid assets fell below the 30% minimum threshold set forth in rule

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[31] *See, e.g.*, Comment Letter of State Street Global Advisors (Apr. 12, 2021) ("State Street Comment Letter"); Comment Letter of Schwab Asset Management Solutions (Apr. 12, 2021) ("Schwab Comment Letter"); Comment Letter of the Investment Company Institute (Apr. 12, 2021) ("ICI Comment Letter I"); Comment Letter of Wells Fargo Funds Management, LLC (Apr. 12, 2021) ("Wells Fargo Comment Letter"); Comment Letter of J.P. Morgan Asset Management (Apr. 12, 2021) ("JP Morgan Comment Letter"). *See also, e.g.*, Li, Lei, Yi Li, Marco Machiavelli, and Alex Xing Zhou, "Runs and Interventions in the Time of COVID-19: Evidence from Money Funds," working paper (2020), *available at* https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3607593 ("Li *et al*.").

[32] Based on our analysis, two-thirds of retail prime money market funds and about half of institutional prime money market funds increased their weekly liquid assets slightly during this period.

2a-7.[33] To support liquidity of fund portfolios, two fund sponsors provided support to three institutional prime funds by purchasing commercial paper and certificates of deposit the funds held.[34]

On March 18, 2020, the Federal Reserve, with the approval of the Department of the Treasury, broadened its program of support for the flow of credit to households and businesses by taking steps to enhance the liquidity and functioning of money markets with the establishment of the Money Market Mutual Fund Liquidity Facility ("MMLF"). The MMLF provided loans to financial institutions on advantageous terms to purchase securities from money market funds that were raising liquidity, thereby helping enhance overall market functioning and credit provisions to the broader economy.[35] MMLF utilization reached a peak of just over $50 billion in early April 2020, or about 5% of net assets in prime and tax-exempt money market funds at the time.[36] Along with other Federal Reserve actions and programs to support the short-term funding markets, the MMLF had the effect of significantly slowing outflows from prime and tax-exempt

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[33] The one money market fund that fell below the 30% threshold did not impose a gate or fees.

[34] As reported by these money market funds in their filings on Form N-CR.

[35] Information about the MMLF is available on the Federal Reserve's website at https://www.federalreserve.gov/monetarypolicy/mmlf.htm. The Federal Reserve Bank of Boston operated the MMLF.

[36] *See* PWG Report, *infra* footnote 39, at 17. Institutional and retail prime and tax-exempt money market funds were eligible to participate in the MMLF. *See also* Federal Reserve Bank of New York Staff Reports, no. 980, The Money Market Mutual Fund Liquidity Facility (Sept. 2021) at text accompanying nn. 19 and 22, *available at* https://www.newyorkfed.org/medialibrary/media/research/staff_reports/sr980.pdf (providing an analysis of prime funds' participation in the MMLF and stating that through its life, the MMLF extended loans to nine banks, which purchased securities from 30 institutional prime funds and 17 retail prime funds).

money market funds.[37] The MMLF ceased providing loans in March 2021.[38]

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[37] *See, e.g.*, "Federal Reserve Issues FOMC Statement" (Mar. 15, 2020), *available at* https://www.federalreserve.gov/newsevents/pressreleases/monetary20200315a.htm; "Federal Reserve Actions to Support the Flow of Credit to Households and Businesses" (Mar. 15, 2020), *available at* https://www.federalreserve.gov/newsevents/pressreleases/monetary20200315b.htm; "Federal Reserve Board Announces Establishment of a Commercial Paper Funding Facility (CPFF) to Support the Flow of Credit to Households and Businesses" (Mar. 17, 2020), *available at* https://www.federalreserve.gov/newsevents/pressreleases/monetary20200317a.htm; "Federal Reserve Board Announces Establishment of a Primary Dealer Credit Facility (PDCF) to Support the Credit Needs of Households and Businesses" (Mar. 17, 2020), *available at* https://www.federalreserve.gov/newsevents/pressreleases/monetary20200317b.htm; "Federal Reserve Board Broadens Program of Support for the Flow of Credit to Households and Businesses by Establishing a Money Market Mutual Fund Liquidity Facility (MMLF)" (Mar. 18, 2020), *available at* https://www.federalreserve.gov/newsevents/pressreleases/monetary20200318a.htm.

[38] *See supra* footnote 35.

Report of the President's Working Group on Financial Markets and the Commission's Request for Comment

The President's Working Group on Financial Markets ("PWG") issued a report discussing these events and several potential money market fund reform options in December 2020 (the "PWG Report").[39] The Commission issued a request for comment (the "Request for Comment") on the various reform options discussed in the PWG Report, and the comment period closed in April 2021.[40] We received numerous comments in response to the Request for Comment, which are discussed throughout this release. Several of the reforms we are proposing in this release were included as potential reform options in the PWG Report.[41]

Reasons for Investors' Redemption Behavior

We considered several factors that may have driven investors' redemptions during this period of market stress, including the potential for the imposition of fees and gates as

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[39] *See* Report of the President's Working Group on Financial Markets, Overview of Recent Events and Potential Reform Options for Money Market Funds (Dec. 2020), *available at* https://home.treasury.gov/system/files/136/PWG-MMF-report-final-Dec-2020.pdf.

[40] Request for Comment on Potential Money Market Fund Reform Measures in President's Working Group Report, Investment Company Act Release No. 34188 (Feb. 4, 2021) [86 FR 8938 (Feb. 10, 2021)]. Comment letters received in response to the Request for Comment are available at: https://www.sec.gov/comments/s7-01-21/s70121.htm.

[41] After considering comments on the Commission's request for comment, we are not proposing other reform options discussed in the PWG Report. These other reform options included: (i) reform of the conditions for imposing redemption gates; (ii) minimum balance at risk; (iii) countercyclical weekly liquid asset requirements; (iv) floating NAVs for all prime and tax-exempt money market funds; (v) capital buffer requirements; (vi) requiring liquidity exchange bank ("LEB") membership; and (vii) new requirements governing sponsor support. The Commission has considered several of these reform options in the past, including minimum balance at risk, floating NAVs for a broader range of funds, capital buffers, and LEB membership. *See* 2014 Adopting Release, *supra* footnote 12, at section III.L. After considering comments, we believe the package of reforms we are proposing is appropriately tailored to achieve our regulatory goals. *See infra* Section III.D (discussing the reform alternatives in the PWG Report that we are not proposing).

funds neared the 30% weekly liquid asset threshold, declining NAVs, risk reduction, and general concerns about the economic impact of the COVID-19 pandemic. Evidence suggests that concerns about the potential for fees or gates contributed to some investors' redemption decisions. For example, one research paper indicated that institutional prime money market fund outflows accelerated as funds' weekly liquid assets went closer to the 30% threshold.[42] Another paper found that smaller institutional investors redeemed more intensely from prime money market funds with lower liquidity levels, whereas large institutional investors redeemed heavily from prime money market funds regardless of fund liquidity level.[43] Weekly Form N-MFP data analyzed in Table 2 shows that most of the largest asset outflows from institutional prime funds in the third week of March 2020 were from those funds with weekly liquid assets below 41%. The five institutional prime money market funds with the lowest weekly liquid assets accounted for roughly 40% of the dollar change in assets among all such money market funds. Although Table 2 shows that money market funds with weekly liquid assets closer to the 30% threshold had a higher percent of outflows during the week ending March 20, 2020, some prime funds with higher levels of weekly liquid assets also experienced large outflows.[44] While Table 2 is based on weekly data provided on Form N-MFP, a research report found that weekly

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42 *See* Li *et al.*, *supra* footnote 31.

43 *See* BIS Quarterly Review: International banking and financial market developments, Bank for International Settlements (Mar. 2021), *available at* https://www.bis.org/publ/qtrpdf/r_qt2103.pdf.

44 For example, two institutional prime money market funds with outflows greater than 40% had weekly liquid assets of 46% and 48%.

liquid assets dropped during the third week of March 2020, but started to recover by the end of the week.[45]

Beyond concerns about the potential imposition of fees or gates, general declines in liquidity levels may have been a concern for investors because the declines can signify that a fund may be less equipped to handle redemptions in the near-term. While declining liquidity on its own likely contributed to some investors' redemption decisions, a few commenters provided information from investor surveys suggesting that the potential for gates, and to a somewhat lesser extent the potential of liquidity fees, was a more common concern among investors.[46]

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[45] For example, on March 16 there were two institutional prime money market funds with weekly liquid assets less than 35%, six on March 18, and three on March 20. *See* ICI Report, Experiences of US Money Market Funds During the Covid-19 Crisis (Nov. 2020) ("ICI MMF Report"), *available at* https://www.ici.org/pdf/20_rpt_covid3.pdf.

[46] *See infra* footnote 73 (discussing these surveys).

Table 2: Aggregate Asset Changes as a Function of Weekly Liquid Assets and Maturity for the Week Ending March 20, 2020

WLA	Number of Funds	AUM ($ Billions)	Asset Change ($ Billions)				Asset Change (%)			
			1-Day	2-7 Days	>7 Days	Net	1-Day	2-7 Days	>7 Days	Net
All Prime Funds										
≤ 36%	7	110.5	-11.0	-4.4	-17.9	-33.4	-7.6%	-3.1%	-12.5%	-23.2%
(36%-41%]	14	274.7	7.6	-28.6	-20.7	-41.6	2.4%	-9.0%	-6.5%	-13.2%
(41%-46%]	30	346.9	3.0	-17.5	-14.3	-28.8	0.8%	-4.7%	-3.8%	-7.7%
> 46%	28	270.0	-7.4	-0.4	-5.3	-13.1	-2.6%	-0.1%	-1.9%	-4.6%
Total	79	1002.0	-7.8	-51	-58.2	-116.9	-0.7%	-4.6%	-5.2%	-10.5%
Retail Prime Funds										
≤ 36%	3	30.1	0.2	-2.3	-0.7	-2.9	0.5%	-7.0%	-2.2%	-8.8%
(36%-41%]	7	199.8	11.8	-23.0	-8.2	-19.3	5.4%	-10.5%	-3.7%	-8.8%
(41%-46%]	13	206.7	12.1	-9.4	-3.3	-0.5	5.9%	-4.5%	-1.6%	-0.2%
> 46%	7	12.3	0.9	-0.3	-0.7	0.0	7.4%	-2.5%	-5.3%	-0.4%
Total	30	448.8	25.1	-35.0	-12.8	-22.8	5.3%	-7.4%	-2.7%	-4.8%
Institutional Prime Funds (public)										
≤ 36%	4	80.4	-11.1	-2.1	-17.2	-30.5	-10.0%	-1.9%	-15.5%	-27.5%
(36%-41%]	7	74.9	-4.2	-5.6	-12.5	-22.3	-4.3%	-5.8%	-12.8%	-22.9%
(41%-46%]	16	140.2	-9.5	-7.9	-10.9	-28.3	-5.6%	-4.7%	-6.5%	-16.8%
> 46%	16	53.9	-1.5	-1.4	-4.2	-7.0	-2.4%	-2.3%	-6.9%	-11.5%
Total	43	349.4	-26.2	-17.0	-44.8	-88.1	-6.0%	-3.9%	-10.2%	-20.1%
Institutional Prime Funds (non-public)										
(41%-46%]	1	1.7	0.3	-0.2	-0.1	0.0	17.9%	-13.7%	-4.7%	-0.4%
> 46%	5	203.8	-6.8	1.3	-0.5	-6.0	-3.3%	0.6%	-0.2%	-2.9%
Total	6	205.5	-6.5	1.1	-0.6	-6.0	-3.1%	0.5%	-0.3%	-2.9%
All Municipal Funds										
> 46%	80	127.4	0.2	-10.7	-2.4	-12.9	0.2%	-7.6%	-1.7%	-9.2%

We also considered the possibility that declining market-based prices for retail and institutional non-government funds contributed to investors' redemptions in March 2020. For retail funds that maintain a stable NAV, declining market-based prices can contribute to investor concerns that these funds may "break the buck" (*i.e.*, have market-based prices below $0.9950) and re-price their shares below $1.00. Most retail prime and tax-exempt money market funds experienced declining market-based prices in March 2020. However, only one retail tax-exempt fund reported a market-based price below $0.9975, and that fund subsequently received sponsor support in the form of a capital

contribution to reduce the deviation between the fund's market-based price and its stable price per share.[47] Moreover, retail prime and tax-exempt money market funds with lower market-based prices did not experience larger outflows than other retail prime and tax-exempt money market funds, so these funds' flows in March 2020 appear to have been unrelated to market-based prices. Like retail funds, most institutional prime and tax-exempt money market funds experienced declines in their market-based prices in March 2020. However, none of the market-based prices dropped below $0.9975. Staff analysis and an external study did not find a correlation between market prices and institutional prime fund redemptions during this time.[48]

We also considered the potential relationship between a money market fund's portfolio holdings and investors' redemption behavior. Investor redemption behavior differed based on the overall nature of a money market fund's portfolio, given that government money market funds had significant inflows and prime money market funds had large outflows. However, unlike the events of 2008, redemptions from prime money market funds did not appear to be correlated to a fund's particular holdings. For instance, prime money market funds with the largest holdings of commercial paper and certificates of deposit did not experience greater redemptions than other prime funds, even though

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47 PWG Report, *supra* footnote 39, at 15.

48 *See* Baklanova, Kuznits, and Tatum, "Prime MMFs at the Onset of the Pandemic: Asset Flows, Liquidity Buffers, and NAVs," SEC Staff Analysis (Apr. 15, 2021) ("Prime MMFs at the Onset of the Pandemic Report") at 5, *available at* https://www.sec.gov/files/prime-mmfs-at-onset-of-pandemic.pdf. Any statements therein represent the views of the staff of the Division of Investment Management. These statements are not a rule, regulation, or statement of the U.S. Securities and Exchange Commission. The Commission has neither approved nor disapproved their content. Such statements, like all staff statements, have no legal force or effect: they do not alter or amend applicable law, and they create no new or additional obligations for any person. *See also* Li *et al*., *supra* footnote 31.

the commercial paper and certificates of deposit markets were experiencing greater strains in March 2020 than other markets in which money market funds invest.[49]

Beyond factors that relate to the regulatory framework for money market funds, there are other factors that may have had a relationship to investors' redemption incentives in March 2020. As some commenters suggested, general uncertainty of a global health crisis and fears of possible business disruptions and economic downturns in the real economy as people stayed at home resulted in investors becoming increasingly risk averse and seeking to preserve or increase liquidity.[50] Some commenters also asserted that some institutional investor redemptions were ordinary course redemptions that otherwise would have occurred, irrespective of the pandemic and market stress, to meet near-term cash needs, including for operating cash, to make quarterly corporate tax payments, or to meet payroll expenses.[51]

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[49] The five institutional prime money market funds with the highest concentration of commercial paper and certificates of deposit accounted for roughly 3% of the dollar change in assets among all institutional prime money market funds. These five funds each held between 71% and 83% of their assets in commercial paper and certificates of deposit. In aggregate, these five funds held $31 billion in assets on March 13, 2020, and experienced a combined outflow of $3 billion, or roughly 10% of their total assets, during the week of March 20, 2020.

[50] *See, e.g.*, ICI Comment Letter I; JP Morgan Comment Letter; Comment Letter of the Vanguard Group, Inc. (Apr. 12, 2021) ("Vanguard Comment Letter"); Comment Letter of Federated Hermes, Inc. (Apr. 12, 2021) ("Federated Hermes Comment Letter I").

[51] *See, e.g.*, Comment Letter of Invesco (Apr. 12, 2021) ("Invesco Comment Letter") (stating that prime money market funds experienced increased redemptions leading up to the quarterly corporate tax deadline); Federated Hermes Comment Letter I (citing a Carfang Group survey in which 50% of surveyed corporate treasurers who redeemed from institutional prime funds in March 2020 stated that they were doing so to meet operating cash needs); Comment Letter of the Securities Industry and Financial Markets Association Asset Management Group (Apr. 12, 2021) ("SIFMA AMG Comment Letter") (stating that tax return filings for partnerships and S-corporations were due on March 16, 2020, and many businesses had biweekly or semimonthly payroll expenses around the same time).

In addition, our staff identified some relationships between the size of outflows and the type of adviser to the fund or the size of the fund. This revealed that publicly offered prime institutional money market funds managed by bank-affiliated advisers had the most outflows in March 2020.[52] Money market funds complexes with lower assets under management in publicly offered prime institutional money market funds also generally had larger outflows during this time.[53]

Connection between Money Market Fund Outflows and Stress in Short-Term Funding Markets

In markets for private short-term debt instruments, such as commercial paper and certificates of deposit, conditions significantly deteriorated in the second week of March 2020. Spreads for commercial paper and certificates of deposits began widening sharply, and new issuances declined and shifted to shorter tenors.[54] While there is limited secondary activity in these markets even in normal times, several industry commenters discussed particular difficulties selling commercial paper in March 2020.[55] Moreover, where money market funds were able to sell commercial paper during this period,

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52 *See* Prime MMFs at the Onset of the Pandemic Report, *supra* footnote 48, at 3. The analysis in this report concluded that the largest outflows in mid-March 2020 were from the publicly offered prime institutional money market funds with advisers owned by banking firms. The funds with advisers owned by the largest U.S. banks designated as global systemically important banks ("G-SIBs") accounted for 56% of the outflows in the third week of March, even though these funds managed only around 28% of net assets in publicly offered prime institutional money market funds.

53 *Id* at 3.

54 PWG Report, *supra* footnote 39, at 11.

55 *See infra* footnote 202 and accompanying paragraph.

increased selling activity from institutional prime funds may have contributed to stress in these markets as discussed below.

Using Form N-MFP data, we observed that retail prime and privately offered institutional prime funds did not sell significantly more long-term portfolio securities (*i.e.*, securities that mature in more than a month) in March 2020 relative to their typical averages. Publicly offered institutional prime funds, however, increased their sales of long-term securities in March 2020 to 15% of total assets during this time period, which includes assets sold to the MMLF and sponsors, compared to a 4% monthly average during the period from October 2016 through February 2020. In March 2020, these funds sold around $52 billion in certificates of deposit and commercial paper with maturities greater than one month.[56] Of this amount, approximately $4 billion was sold to fund sponsors, as reported on Form N-CR. Combining this data with data provided by an industry group's member survey and Federal Reserve data on the balance of the MMLF, prime money market funds sold an estimated $80 billion in commercial paper and certificates of deposit in March 2020, with approximately 5% ($4 billion) of that total sold to sponsors, 66% ($53 billion) pledged to the MMLF, and 29% ($23 billion) sold in the secondary market.[57] Thus, we find that prime money market funds, particularly

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[56] This analysis is based on longer-term holdings that these funds reported on Form N-MFP in February 2020 but that they did not report holding in March 2020. The estimate includes $24.3 billion in certificates of deposit and $28.1 billion in commercial paper.

[57] Our analysis of available data suggests that of the $80 billion in commercial paper and certificates of deposit sold in March 2020, about $70 billion had maturities greater than a month and about $10 billion had maturities less than a month. As of April 1, 2020, the MMLF balance was close to $53 billion according to the Federal Reserve's weekly data, *available at* https://www.federalreserve.gov/releases/h41/20200402/. *See* ICI Comment Letter I (providing information about money market fund selling activity in March 2020 based on a member survey).

institutional funds, were engaging in greater than normal selling activity in these markets which, when combined with similar selling from other market participants such as hedge funds and bond mutual funds, both contributed to, and were impacted by, stress in short-term funding markets.[58]

Conditions in short-term municipal debt markets also worsened rapidly in March 2020. Stresses in short-term municipal markets contributed to pricing pressures and outflows for tax-exempt money market funds which, in turn, contributed to increased stress in municipal markets.[59] Table 2 shows that as tax-exempt money market funds experienced heightened redemptions in the third week of March 2020 of 9.2%, they reduced their holdings (*e.g.*, tender option bonds and variable rate demand notes) by $12.9 billion that week.

One commenter suggested that the overall issue in the municipal securities market in March 2020 was selling pressure from many market participants, and not selling pressure from tax-exempt money market funds, which make up only a small portion of the overall market. [60] This commenter suggested that other market participants were raising cash by selling short-term municipal securities, which caused meaningful discounts on the market value of those securities and consequently placed downward pressure on market-based NAVs of tax-exempt money market funds. The commenter also stated that longer-term municipal money market securities, and not variable rate demand

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58 *See, e.g.,* SEC Staff Interconnectedness Report, *supra* footnote 25, at 4. At the end of February 2020, prime money market funds offered to the public owned about 19% of commercial paper outstanding. *See* PWG Report, *supra* footnote 39, at 11.

59 *See* PWG Report, *supra* footnote 39, at 12. *See also* SEC Staff Interconnectedness Report, *supra* footnote 25, at 27.

60 Vanguard Comment Letter.

notes, bore the brunt of the market stress in March 2020. Another commenter suggested that tax-exempt money market funds sold longer-term holdings in March 2020 to maintain an average weighted maturity of not more than 60 days, rather than to maintain weekly liquid assets above 30% (given that these funds typically hold much higher levels of weekly liquid assets).[61] Our analysis found that tax-exempt money market funds sold a larger amount of portfolio securities with maturities of more than a month in March 2020 than they typically do. Retail tax-exempt money market funds sold 16% of total assets of such holdings during this period, compared to a monthly average of 3% during the period from October 2016 through February 2020. Institutional tax-exempt money market funds increased their sales of longer-term securities from 5% of total assets during the period from October 2016 through February 2020 to 24% in March 2020. Similar to what we observed with prime money market funds, tax-exempt funds engaged in greater than normal selling activity.[62]

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[61] Comment Letter of Stephen Keen (Apr. 28, 2021). This commenter also disagreed with a statement in the PWG Report that a spike in the SIFMA index yield caused a drop in market-based NAVs of tax-exempt money market funds. The commenter suggested that it is more likely that the fund reporting a market-based NAV below $0.9775 had already realized losses from earlier portfolio sales and sold longer-term holdings in response to redemptions in March, with the March redemptions increasing the significance of the realized losses.

[62] Although the tax-exempt money market funds held only $127 billion in assets in the third week of March 2020, they, like other larger market participants, found it difficult to sell assets during this period of market stress.

II. DISCUSSION

A. Amendments to Remove Liquidity Fee and Redemption Gate Provisions

1. Unintended Effects of the Tie Between the Weekly Liquid Asset Threshold and Liquidity Fees and Redemption Gates

Under current rule 2a-7, a money market fund has the ability to impose liquidity fees or redemption gates (generally referred to as "fees and gates") after crossing a specified liquidity threshold.[63] A money market fund may impose a liquidity fee of up to 2%, or temporarily suspend redemptions for up to 10 business days in a 90-day period, if the fund's weekly liquid assets fall below 30% of its total assets and the fund's board of directors determines that imposing a fee or gate is in the fund's best interests.[64] Additionally, a non-government money market fund is required to impose a liquidity fee of 1% on all redemptions if its weekly liquid assets fall below 10% of its total assets, unless the board of directors of the fund determines that imposing such a fee would not be in the best interests of the fund.[65] Separately, a money market fund is required to provide daily disclosure of the percentage of its total assets invested in weekly liquid assets (as well as daily liquid assets) on its website to provide transparency to investors and increase market discipline.[66]

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63 Government funds are permitted, but not required, to impose fees and gates, as discussed below.

64 If, at the end of a business day, a fund has invested 30% or more of its total assets in weekly liquid assets, the fund must cease charging the liquidity fee (up to 2%) or imposing the redemption gate, effective as of the beginning of the next business day. *See* 17 CFR 270.2a-7(c)(2)(i)(A) and (B), and (ii)(B).

65 The board also may determine that a lower or higher fee would be in the best interests of the fund. *See* 17 CFR 270.2a-7(c)(2)(ii)(A).

66 17 CFR 270.2a-7(h)(10)(ii); 2014 Adopting Release, *supra* footnote 12, at section III.E.9.a.

Fees and gates were intended to serve as redemption restrictions that would provide a "cooling off" period to temper the effects of a short-term investor panic and preserve liquidity levels in times of market stress, as well as better allocate the costs of providing liquidity to redeeming investors.[67] However, these provisions did not achieve these objectives during the period of market stress in March 2020. Based on available evidence, even though no money market fund imposed a fee or gate, the possibility of the imposition of a fee or gate appears to have contributed to incentives for investors to redeem and for money market fund managers to maintain weekly liquid asset levels above the threshold, rather than use those assets to meet redemptions.[68] These tools therefore appear to have potentially increased the risks of investor runs without providing benefits to money market funds as intended. As a result, and after considering comments, we are proposing to remove the tie between liquidity thresholds and fee and gate provisions and, moreover, to remove fee and gate provisions from rule 2a-7 entirely.[69]

Commenters broadly supported removal of the tie between weekly liquid asset thresholds and the potential imposition of fees and gates.[70] Many commenters stated that

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67 *See* 2014 Adopting Release, *supra* footnote 12, at section III.L.1.a.

68 *See supra* Section I.B.

69 We also propose to remove related disclosure and reporting provisions that require funds to disclose certain information about the possibility of fees and gates in their prospectuses and to report any imposition of fees or gates on Form N-CR, on the fund's website, and in its statement of additional information. *See* Items 4(b)(1)(ii) and 16(g)(1) of current Form N-1A; Parts E, F, and G of current Form N-CR; 17 CFR 270.2a-7(h)(10)(v).

70 *See e.g.*, ICI Comment Letter I; SIFMA AMG Comment Letter; Comment Letter of Fidelity Management & Research Company LLC (Apr. 12, 2021) ("Fidelity Comment Letter"); Comment Letter of Northern Trust Asset Management (Apr. 12, 2021) ("Northern Trust Comment Letter"); Schwab Comment Letter; Comment Letter of Professors of Finance, Stanford Graduate School of Business, and The University of Chicago Booth School of Business (Apr. 9, 2021) ("Prof. Admati et al. Comment Letter"); Comment Letter of Healthy Markets Association (Apr. 19, 2021) ("Healthy Markets Comment Letter").

this tie contributed to investors' incentives to redeem in March 2020 as funds' weekly liquid assets declined.[71] Commenters suggested that, although the rule allows but does not require a fund's board to impose redemption gates or liquidity fees when the fund drops below the 30% weekly liquid asset threshold, investors viewed the 30% threshold as a bright line prompting redemptions.[72] Some commenters also provided information suggesting that concerns about the potential imposition of fees or gates contributed to institutional investors' decisions to redeem.[73] One commenter stated that these concerns, combined with investors' ability to track weekly liquid asset levels on a daily basis, drove investors' redemption behavior.[74] A few commenters suggested that investors were more concerned about the potential for temporary suspensions of redemptions than the

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[71] *See, e.g.*, ICI Comment Letter I; Vanguard Comment Letter; Fidelity Comment Letter; Prof. Admati et al. Comment Letter; Comment Letter of U.S. Chamber of Commerce Center for Capital Markets Competitiveness (Apr. 12, 2021) ("CCMC Comment Letter").

[72] *See* Schwab Letter; ICI Comment Letter I; Comment Letter of the Investment Company Institute (May 12, 2021) ("ICI Comment Letter II"); JP Morgan Comment Letter; Wells Fargo Comment Letter.

[73] *See, e.g.*, JP Morgan Comment Letter (discussing an informal survey of institutional investor clients in which respondents, on average, identified the potential for gates as the most important factor affecting their decisions to redeem among several possible factors the survey identified); Federated Hermes Comment Letter I (citing a survey of 39 treasury managers in which 49% of the treasurers decreased their holdings of prime money market funds in March 2020 and, of those treasurers, 87% mentioned the potential of "redemption hurdles" as a factor in their decision to redeem).

[74] ICI Comment Letter I.

potential for liquidity fees.[75] In addition, a few commenters stated that retail investors were less sensitive to concerns about potential fees or gates than institutional investors.[76]

Several commenters also discussed the effect of the connection between liquidity thresholds and fees and gates on money market fund managers' behavior in March 2020. These commenters stated that, rather than use weekly liquid assets, some managers sold longer-dated securities to meet redemptions to avoid falling below the 30% threshold.[77] Commenters asserted that these sales led to losses for funds and their remaining investors, and contributed to downward pricing pressure on the underlying securities.[78] A few commenters also suggested that the pressure for money market funds to maintain liquidity buffers well above the 30% threshold exacerbated market stress in March 2020 as most money market funds were seeking liquidity at the same time to maintain or build their buffers in the face of redemptions.[79] Commenters also recognized that, in a few instances, fund sponsors provided financial support by purchasing securities from affiliated institutional prime money market funds to prevent these funds from dropping

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75 *See* Invesco Comment Letter (stating that investors were less concerned about the price of their shares and more concerned about not having access to their shares, particularly for investors who were bolstering their liquidity positions ahead of what was an unknown situation in March 2020); ICI Comment Letter I (stating that investors view access to their money as paramount in stress periods and are less concerned with "losing a few pennies" through, for example, a fee); ICI Comment Letter II.

76 *See, e.g.*, ICI Comment Letter I (stating that retail prime money market funds did not exhibit the same pattern of increasing redemptions as a fund neared the 30% threshold, despite the fact that retail prime funds are subject to the same fee and gate provisions as institutional prime funds); Fidelity Comment Letter.

77 *See, e.g.*, State Street Comment Letter; ICI Comment Letter I; JP Morgan Comment Letter.

78 *See, e.g.*, JP Morgan Comment Letter.

79 *See* Schwab Comment Letter; State Street Comment Letter (stating that the commenter observed that institutional prime money market funds held, on average, weekly liquid assets of approximately 45% during March 2020).

below the 30% weekly liquid asset threshold.[80] One commenter stated that, prior to the 2014 reforms that created the connection between liquidity thresholds and fees and gates, money market funds regularly used their liquidity buffers and had weekly liquid assets below the 30% threshold without adverse consequences.[81]

We recognize that the current fee and gate provisions did not have their intended effect in March 2020 and, instead, appear to have contributed to some of the stress that some money market funds and short-term funding markets faced during that period. Some investors may have feared that if they were not the first to exit their fund, there was a risk that they could be subject to gates or fees, and this anticipatory, risk-mitigating perspective potentially further accelerated redemptions. As discussed above, our analysis and external research are consistent with commenters' views on investor behavior and found that prime and tax-exempt money market funds whose weekly liquid assets approached the 30% threshold had, on average, larger outflows in percentage terms than other prime and tax-exempt money market funds.[82]

2. Removal of Redemption Gates from Rule 2a-7

We are proposing to remove the ability of a money market fund to impose redemption gates under rule 2a-7, as suggested by some commenters.[83] For example, a

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80 *See, e.g.*, ICI Comment Letter I; Wells Fargo Comment Letter.

81 ICI Comment Letter I (stating that for the more than 6 years the 30% weekly liquid asset threshold was in effect but not connected to fee and gate provisions, 68% of prime money market funds and 10% of tax-exempt money market funds dropped below the 30% threshold at least once, and at least one prime money market fund was below this threshold in nearly each week during this period).

82 *See supra* Section I.B (discussing our analysis and external papers).

83 *See* Vanguard Comment Letter; Comment Letter of Western Asset Management Company, LLC (Apr. 12, 2021) ("Western Asset Comment Letter"); *see also* JP Morgan Comment Letter; ICI Comment Letter I.

few commenters suggested that gates be eliminated from rule 2a-7 entirely, or that funds be permitted to suspend redemptions only under extraordinary circumstances, such as in anticipation of a fund liquidation in accordance with rule 22e-3.[84] One of these commenters suggested that, given the strong investor aversion to gates and the likelihood that liquidation would be a consequence of any board determination to impose a gate, the current gate provisions contemplated for fund liquidations in existing rule 22e-3 may be sufficient.[85] Based on the experience in March 2020, we are concerned that redemption gates may not be an effective tool for money market funds to stem heavy redemptions in times of stress due to money market fund investors'—who typically invest in money market funds for cash management purposes—general sensitivity to being unable to access their investments for a period of time and tendency to redeem from such funds preemptively if they fear a gate may be imposed. Under the proposal, a money market fund would continue to be able to suspend redemptions to facilitate an orderly liquidation of the fund under rule 22e-3. Rule 22e-3 generally allows a money market fund to suspend redemptions if, among other conditions, (1) the fund, at the end of a business day, has invested less than 10% of its total assets in weekly liquid assets or, in the case of a government or retail money market fund, the fund's price per share has deviated from its stable price (*i.e.*, it has "broken the buck") or the fund's board determines that such a

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84 *See* Vanguard Comment Letter (noting the negative potential consequences if gates remain in the rule text); Western Asset Comment Letter (recommending that gates be permitted only under extraordinary circumstances, such as when a fund is in severe difficulties or in anticipation of liquidation); JP Morgan Comment Letter (suggesting either that the gate provision be removed from the rule or that rule 2a-7 grant boards the discretion to impose gates at any time if they deem it to be in the best interest of the fund).

85 *See* JP Morgan Comment Letter.

deviation is likely to occur, and (2) the fund's board has approved the fund's liquidation. We continue to believe that the ability to suspend redemptions in these circumstances can help address the significant run risk and potential harm to shareholders.

Some commenters suggested other ways of removing the tie between the weekly liquid asset threshold and a fund's ability to impose a gate. For example, some suggested that fund boards should have discretion to impose gates at any time they determine doing so is in the best interests of the fund.[86] One commenter stated that some institutional investors may still redeem preemptively when a fund's weekly liquid assets approach the 30% threshold out of fear of a gate, but asserted that granting the board discretion without a liquidity threshold tie would reduce the incentive for a large percentage of shareholders to preemptively redeem. The commenter also suggested this approach could materially improve the functioning of money market funds in any future liquidity events and could be easily implemented within the existing regulatory framework.[87] A few other commenters recommended that any reform should maintain a regulatory link between the weekly liquid asset threshold and the imposition of gates, but that the weekly liquid asset threshold should be lowered to 10% or 15%.[88] These commenters expressed concern that

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86 *See e.g.*, Wells Fargo Comment Letter; Federated Hermes Comment Letter I; Comment Letter of the Institute of International Finance (Apr. 12, 2021) ("Institute of International Finance Comment Letter"); Comment Letter of the American Bankers Association (Apr. 12, 2021) ("ABA Comment Letter"); JP Morgan Comment Letter; ICI Comment Letter I; Comment Letter of Federated Hermes, Inc. (Sept. 13, 2021) ("Federated Hermes Comment Letter III") (suggesting the rule identify certain types of information that a fund's board could consider requesting from the adviser to inform this decision).

87 Wells Fargo Comment Letter.

88 Comment Letter of Dreyfus Cash Investment Strategies (Apr. 12, 2021) ("Dreyfus Comment Letter"); Comment Letter of T. Rowe Price (Apr. 12, 2021) ("T. Rowe Price Comment Letter"); Comment Letter of BlackRock, Inc. (Apr. 12, 2021) ("BlackRock Comment Letter").

without clear regulatory protocol on when money market funds could implement gates, boards might face too much pressure in making this decision and investors may have additional uncertainty, which could negatively affect investor redemption decisions.

We are not proposing a gate provision, either with or without an associated liquidity threshold, to limit the potential for investor uncertainty and de-stabilizing preemptive investor redemption behavior regarding the potential use of gates during stress events. Based on investor behavior in March 2020, we are concerned that voluntary gates may not be imposed, and if imposed, could lead to the closure of the fund in question. Rule 22e-3 under the Act provides a mechanism for a fund to suspend redemptions to facilitate an orderly liquidation, so we believe that this provision provides adequate flexibility for liquidating funds without incentivizing de-stabilizing investor redemption behavior during stress events. In addition, without a specific regulatory threshold or other specific guidelines to govern the imposition of gates, it may be difficult for a fund's board to determine whether it is in the fund's best interests to impose a voluntary gate. We are concerned that the discretionary ability of the board to impose gates could add uncertainty in times of market stress, and investors may decide to redeem at this time simply to avoid the potential imposition of a gate. Such preemptive redemptions could increase pressure on fund liquidity during periods of market stress.

We request comment on our proposal to remove from rule 2a-7 the ability of money market funds to impose redemption gates and to retain the availability of a suspension under the terms set forth in rule 22e-3, including the following:

1. Should we, as proposed, no longer allow money market funds to impose redemption gates under rule 2a-7? Are there circumstances, beyond those

covered by rule 22e-3, in which the ability of a money market fund to impose a gate or suspend redemptions would provide benefits to money market funds and short-term funding markets?

2. Instead of removing the ability to impose gates from rule 2a-7, should we retain gates as an available tool for money market funds? If so, should we modify the current provision to remove the tie between gate determinations and liquidity thresholds? Should a fund board be able to impose a gate any time it determines that doing so is in the best interests of the fund? If so, should a fund have to opt in ex ante to having gates as a potential tool? In what circumstances would it likely be in the fund's best interests to impose a gate? Would a board impose a gate in practice and, if so, what are the practical consequences of any such decision? Would it be effective to require a fund to adopt board-approved policies and procedures that identify the circumstances in which the fund would impose a gate? If so, what factors should those policies and procedures consider for purposes of when to impose a gate? How would this approach affect investor and fund behavior? For example, would investors be likely to redeem preemptively in times of stress out of concern that a fund may impose a gate, or would investors view a redemption gate as unlikely under this approach?

3. If we retain the connection between redemption gates and liquidity thresholds, what liquidity threshold should we use to permit a board to impose a redemption gate? For example, should the liquidity threshold

remain at 30% weekly liquid assets, increase to 50% weekly liquid asset in connection with our proposal to increase liquidity requirements, or be lower than the current 30% threshold (*e.g.*, 10% or 15% weekly liquid assets)? Should the board's ability to impose a redemption gate instead be tied to a daily liquid asset threshold, such as the current 10% threshold, the proposed 25% threshold discussed below, or a lower threshold, such as 5%? How would these changes affect investor and fund behavior? Are there other ways we should modify provisions related to redemption gates to make them less likely to incentivize preemptive redemptions in times of stress?

4. Should we allow certain types of money market funds to impose redemption gates, but not others? For example, are retail investors less sensitive to the potential imposition of gates, such that allowing retail funds to impose gates is less likely to contribute to incentives to redeem preemptively? Alternatively, should we only allow institutional funds to impose gates given that these funds historically have experienced higher levels of redemptions in times of stress?
5. If we retain a redemption gate provision in rule 2a-7, would the board's ability to impose a redemption gate reduce the need for, or otherwise affect, other regulatory provisions we are proposing (*e.g.*, the swing pricing requirement for institutional prime and institutional tax-exempt money market funds, increased liquidity requirements for all money market funds)?

3. Removal of Liquidity Fees from Rule 2a-7

We also are proposing to remove from rule 2a-7 the provisions allowing or requiring money market funds to impose liquidity fees once the fund crosses certain liquidity thresholds. As a general matter, we believe investors are less sensitive to the possibility of bearing liquidity costs than they are to the possibility of redemption gates.[89] We also continue to believe it is important for institutional prime and institutional tax-exempt money market funds to have a tool to cause redeeming investors to bear the costs of liquidity if they redeem during a period of stress. However, we do not believe the current liquidity fee provisions in rule 2a-7 achieve this goal. In March 2020, no money market funds imposed liquidity fees, despite the fact that many institutional prime and tax-exempt funds were experiencing significant outflows and some were selling portfolio holdings to meet redemptions, sometimes at a significant loss due to wider spreads given liquidity conditions in the market at that time.[90] In part, this is due to the design of the current rule, given that only one institutional prime fund had weekly liquid assets below the 30% threshold and could have therefore imposed a liquidity fee.

Some commenters recommended that we allow a fund's board to impose liquidity fees whenever the board determines that doing so is in the best interests of shareholders, without reference to a specific liquidity threshold.[91] A few other commenters suggested allowing fund boards to impose liquidity fees when the fund's weekly liquid assets reach

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[89] *See supra* footnote 75 (discussing comment letters that expressed the view that the possibility of redemption gates was a greater concern for investors in March 2020 than the possibility of liquidity fees).

[90] *See, e.g.*, JP Morgan Comment Letter.

[91] *See, e.g.*, Federated Hermes Comment Letter I; Comment Letter of Federated Hermes, Inc. (June 1, 2021); Wells Fargo Comment Letter.

a set level that is lower than the existing 30% threshold.[92] Some commenters suggested that we require money market funds to have policies and procedures that provide a fund's board with direction on when to impose fees and how to calculate them.[93] Another commenter recommended that the rule identify certain types of information that the board could request from the fund's adviser to inform its decision of whether to impose liquidity fees and require the board to summarize the basis of its decision to impose liquidity fees in a report to the Commission.[94] We are not proposing any of these approaches because we do not believe they would result in timely decisions to impose liquidity fees on days when the fund has net outflows that, due to associated costs to meet those redemptions, will dilute the value of the fund for remaining shareholders.[95] Moreover, while one commenter suggested removing the ability to impose fees from rule 2a-7, the commenter did not support any alternative tools for imposing liquidity costs on redeeming investors.[96]

For institutional prime and tax-exempt money market funds, we are concerned that the current rule—and the alternatives commenters suggested—would not protect remaining investors in a fund from dilution resulting from sizeable outflows in future periods of stress. While we are proposing to remove liquidity fee provisions from the

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92 *See, e.g.*, BlackRock Comment Letter (suggesting 10%); Dreyfus Comment Letter (suggesting 15%).

93 JP Morgan Comment Letter; ICI Comment Letter I; Western Asset Comment Letter.

94 Federated Hermes Comment Letter III.

95 In contrast, the proposed swing pricing requirement discussed below would not require board action to impose costs on redeeming investors on a particular day and instead would connect the liquidity costs to the amount of net redemptions for that period, thus reducing the potential for a first-mover advantage or other timing misalignment between an investor's redemption activity and the imposition of liquidity costs.

96 Vanguard Comment Letter.

rule, we believe it is important for these funds to have an effective tool to address shareholder dilution and potential institutional investor incentives to redeem quickly in times of liquidity stress to avoid further losses. As a result, we are proposing to require institutional prime and tax-exempt money market funds to implement swing pricing, as discussed in more detail below.

For retail prime and tax-exempt funds, these funds historically have experienced lower, more gradual levels of redemptions in stress periods than institutional funds. This was also true in March 2020, when retail prime funds had outflows of approximately 11% over a three-week period in comparison to institutional prime fund outflows of approximately 30% over a two-week period. As discussed below, we are proposing to increase liquidity requirements for all money market funds, including retail funds. When the Commission originally determined to apply the fee and gate provisions to retail funds, it expressed concern that retail investors may be motivated to redeem heavily in flights to quality, liquidity, and transparency (even if they may do so somewhat more slowly than institutional investors) and stated that it could not rule out the potential for heavy redemptions in retail funds in the future.[97] Although retail funds did not have particularly heavy redemptions during the liquidity stress of March 2020, some retail prime funds participated in the MMLF, and it is impossible to know whether outflows would have continued absent official sector intervention that helped stabilize short-term funding markets.[98] We believe, however, that the significant increases to daily and weekly liquid asset thresholds we are proposing—which would have the largest effect on retail prime

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97 *See* 2014 Adopting Release, *supra* footnote 13, at section III.C.2.a.

98 *See supra* footnote 36 (noting that 17 retail prime funds participated in the MMLF).

funds based on their average historical liquidity levels—should result in these funds being able to manage much heavier redemptions than they have experienced during any previous stress period.[99] As a result of the expected effect of the liquidity requirement changes, we do not believe that retail prime and tax-exempt money market funds need special provisions allowing them to impose liquidity fees or other analogous tools under rule 2a-7.

While the proposal would remove the liquidity fee provision in rule 2a-7, a money market fund's board of directors may nonetheless approve the fund's use of redemption fees (up to but not exceeding 2% of the value of shares redeemed) to eliminate or reduce as practicable dilution of the value of the fund's outstanding securities under rule 22c-2 under the Act.[100] As the Commission has previously recognized, rule 22c-2 is not limited to recouping costs associated with short-term trading strategies, such as market timing, and can be used to mitigate dilution arising from shareholder transaction activity generally, including indirect costs such as liquidity costs.[101] Although rule 22c-2

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99 *See infra* paragraph accompanying footnote 209 (explaining that while the proposal would require retail prime funds to maintain higher levels of liquidity than they have historically maintained on average, the resulting larger liquidity buffers would increase the likelihood that these funds can meet redemptions without significant dilution).

100 *See* 17 CFR 270.22c-2 (rule 22c-2 under the Investment Company Act) (providing that an open-end fund may impose a redemption fee, not to exceed 2% of the value of the shares redeemed, upon the determination by the fund's board of directors that such fee is "necessary or appropriate to recoup for the fund the costs it may incur as a result of those redemptions or to otherwise eliminate or reduce so far as practicable any dilution of the value of the outstanding securities issued by the fund"). We anticipate that retail prime and tax-exempt money market funds would be more likely to rely on rule 22c-2 to impose redemption fees than institutional prime and tax-exempt funds, as the institutional funds would be subject to a proposed swing pricing requirement to address dilution.

101 *See* Mutual Fund Redemption Fees, Investment Company Act Release No. 26782 (Mar. 11, 2005) [70 FR 13328 (Mar. 18, 2005)]; Investment Company Swing Pricing, Investment Company Release No. 32316 (Oct. 13, 2016) [81 FR 82084 (Nov. 18, 2016)] ("Swing Pricing Adopting Release"), at paragraph accompanying n.26.

generally classifies money market funds as excepted funds that are not subject to the rule's requirements, the rule does not treat money market funds as excepted funds if they elect to impose redemption fees under the rule.[102] Thus, to the extent a money market fund's board determines that the ability to impose fees may be necessary to protect its investors, the board could establish a redemption fee approach to meet the needs of the fund, provided the fund otherwise complies with rule 22c-2 (*e.g.*, by entering into shareholder information agreements with intermediaries) and discloses information about the redemption fee in its prospectus in compliance with Form N-1A. If a money market fund elects to impose redemption fees under rule 22c-2, its process for determining when to apply a fee and in what amount generally should be designed to result in timely application of a fee to address dilution.

We request comment on our proposal to no longer permit or require money market funds to impose liquidity fees under rule 2a-7, including on the following:

6. Should we remove the liquidity fee provisions from rule 2a-7, as proposed? To what extent did the possibility of liquidity fees motivate investors' redemption decisions in March 2020? If liquidity fees are less of a concern for investors than redemption gates, would liquidity fee provisions, on their own, be less likely to contribute to preemptive redemptions in future stress periods? If so, are there advantages to retaining the current liquidity fee provisions and their connection to weekly liquid asset thresholds? If we retain the connection between liquidity fees and liquidity thresholds, what liquidity threshold should we

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[102] *See* 17 CFR 270.22c-2(b).

use to permit a board to impose a liquidity fee (*e.g.*, the current 30% weekly liquid asset threshold or 10% daily liquid asset threshold, the 50% weekly liquid asset threshold or 25% daily liquid asset threshold we propose to use for purposes of funds' minimum liquidity requirements, or a lower threshold, such as 10% or 15% weekly liquid assets or 5% daily liquid assets)? How would changes to the liquidity threshold that allows a fund board to consider liquidity fees affect investor and fund behavior?

7. Rather than remove the current liquidity fee provisions, should we modify the circumstances in which a money market fund may impose liquidity fees? Should we permit a fund's board to impose liquidity fees when it determines that fees are in the best interests of the fund? Would a board use this tool in practice? What would be the impediments (if any) of the board making this determination? Would the board be able to act quickly enough to impose a fee so that redeeming investors bear the costs associated with their redemptions and do not have a first-mover advantage? Are there other ways we could achieve these goals through a liquidity fee framework? For example, would it be effective to require a fund to adopt board-approved policies and procedures that identify the circumstances in which the fund would impose a liquidity fee and how the fund would calculate the amount of the fee, without requiring in-the-moment board decisions or action? If so, what factors should those policies and procedures consider for purposes of when to impose a liquidity fee (*e.g.*, size of redemptions, liquidity of the fund's portfolio,

market conditions, and transaction costs)? As another alternative, should we require a fund to adopt board-approved policies and procedures that result in a fund determining its liquidity costs each day it has net redemptions and applying those costs through a fee? Under either of these approaches, how should funds calculate the amount of a liquidity fee? Should this calculation method be the same as or similar to the calculation of a swing factor for purposes of our proposed swing pricing requirement or the Commission's current swing pricing rule applicable to other mutual funds?[103] Should the calculation account for factors that boards may consider in determining the level of a liquidity fee under the current rule, such as changes in spreads for portfolio securities (whether based on actual sales, dealer quotes, pricing vendor mark-to-model or matrix pricing, or otherwise); the maturity of the fund's portfolio securities; or changes in the liquidity profile of the fund in response to redemptions and expectations regarding that profile in the immediate future?[104] Should the liquidity fee take into account the market impact of selling the fund's securities to meet redemptions?[105] Should the liquidity fee be based on an assumption that the fund meets redemptions with its most liquid securities,

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103 *See infra* Section II.B.1 (discussing calculation of a swing factor under our proposal); 17 CFR 270.22c-1(a)(3)(i)(C) (describing calculation of a swing factor under the Commission's current swing pricing rule applicable to non-money market funds).

104 *See* 2014 Adopting Release, *supra* footnote 12, at paragraph accompanying n.303.

105 Market impact costs are costs incurred when the price of a security changes as a result of the effort to purchase or sell the security. Market impact costs reflect price concessions (amounts added to the purchase price or subtracted from the selling price) that are required to find the opposite side of the trade and complete the transaction.

a pro rata amount of each security in its portfolio, or only the securities the fund intends to use to meet redemptions? Should the liquidity fee be a set amount, such as 0.5%, 1%, or 2% of the value of the shares redeemed? Instead of a uniform fee amount, should the rule establish a default fee that funds could adjust upward or downward, as appropriate?

8. If we maintain a liquidity fee provision in the rule, should it apply only to institutional prime and tax-exempt funds, or should retail or government funds also be subject to the provision? What are the key distinguishing characteristics of the funds that would lead to differing approaches?
9. If we allowed or required funds to impose liquidity fees, are there other changes we should make to the current framework? For example, should we continue to limit the size of the liquidity fee to no more than 2% of the value of the shares redeemed? Are there circumstances in which the liquidity costs associated with meeting redemptions may exceed 2% of the value of the shares redeemed, such that increasing or removing the limit would better mitigate dilution?
10. If we adopted a modified liquidity fee framework that required funds to apply liquidity fees more frequently than is contemplated by the current rule, are there operational issues we would need to consider? For example, are intermediaries able to apply liquidity fees on a dynamic basis (*e.g.*, where liquidity fees vary in size and may apply more frequently than during periods of stress)?

11. Should we require money market funds to implement practices to mitigate investor dilution but permit money market funds to choose between imposing liquidity fees or imposing the proposed swing pricing approach as the method for doing so? Should we allow money market funds to choose other unspecified options for mitigating investor dilution? What are the advantages and disadvantages of these approaches? What factors would influence a fund's decision of whether to implement swing pricing, a liquidity fee framework, or another method of mitigating dilution?
12. Do money market funds view rule 22c-2 as a viable way to implement liquidity fees, if the board approves the use of such fees? Should we modify any of the requirements of rule 22c-2 or Form N-1A that relate to redemption fees for these funds? For example, should we specify that, like a liquidity fee under rule 2a-7, a money market fund redemption fee under rule 22c-2 does not need to be disclosed in the prospectus fee table? Would retail prime or retail tax-exempt funds opt to rely on rule 22c-2? Would institutional prime or institutional tax-exempt funds ever use rule 22c-2 in addition to the proposed swing pricing requirement and, if so, why?

B. Proposed Swing Pricing Requirement

1. Purpose and Terms of the Proposed Requirement

We are proposing a swing pricing requirement specifically for institutional prime and institutional tax-exempt money market funds that would apply when the fund

experiences net redemptions.[106] This requirement is designed to ensure that the costs stemming from net redemptions are fairly allocated and do not give rise to a first-mover advantage or dilution under either normal or stressed market conditions.[107] The swing pricing requirement would complement our proposal to require funds to hold additional liquidity by requiring redeeming investors to pay the cost of depleting a fund's liquidity. Requiring swing pricing also would address a fund's potential reluctance to impose a voluntary liquidity fee even when doing so might be beneficial to the fund.

Swing pricing is a process of adjusting a fund's current NAV such that the transaction price effectively passes on costs stemming from shareholder transaction flows out of the fund to shareholders associated with that activity.[108] Trading activity and other changes in portfolio holdings associated with meeting redemptions may impose costs, including trading costs and costs of depleting a fund's daily or weekly liquid assets. These costs, which currently are borne by the remaining investors in the fund, can dilute the interests of non-redeeming shareholders. This can create incentives for shareholders to redeem quickly to avoid losses, particularly in times of market stress. If shareholder

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106 We refer to money market funds that are not government money market funds or retail money market funds collectively as "institutional funds" when discussing the proposed swing pricing requirement.

107 The proposed swing pricing requirement differs in certain respects from the swing pricing provision in rule 22c-1, which does not apply to money market funds. We are proposing a swing pricing requirement specifically for institutional funds in rule 2a-7, rather than proposing amendments to rule 22c-1, because we are focused on money market fund reform in this release. The Fall 2021 Unified Agenda notes that the Division of Investment Management is considering recommending changes to regulatory requirements relating to open-end funds' liquidity and dilution management. *See* Securities and Exchange Commission, Fall 2021 Unified Agenda, *available at* www.reginfo.gov.

108 While the term swing pricing typically refers to a process of adjusting a fund's NAV for either net redemptions or net subscriptions, the proposed swing pricing framework for money market funds would only apply when a fund has net redemptions.

redemptions are motivated by this first-mover advantage, they can lead to increasing outflows, and as the level of outflows from a fund increases, the incentive for remaining shareholders to redeem may also increase. Regardless of whether investor redemptions are motivated by a first-mover advantage or other factors, there can be significant, unfair adverse consequences to remaining investors in a fund in these circumstances, including material dilution of remaining investors' interests in the fund. Swing pricing can reduce the potential for dilution of investors who choose to remain in the fund.

The proposed swing pricing requirement is designed to address these concerns. Under the proposal, an institutional fund would be required to adjust its current NAV per share by a swing factor reflecting spread and transaction costs, as applicable, if the fund has net redemptions for the pricing period.[109] If the institutional fund has net redemptions for a pricing period that exceed the "market impact threshold," which would be defined as 4% of the fund's net asset value divided by the number of pricing periods the fund has in a business day, or such smaller amount of net redemptions as the swing pricing administrator determines, the swing factor would also include market impacts, as described below.[110] The "pricing period" would be defined, in substance, to mean the period of time in which an order to purchase or sell securities issued by the fund must be

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[109] *See* proposed rule 2a-7(c)(2)(ii)(A). The proposal would implement the swing pricing requirement by requiring an affected money market fund to adopt swing pricing policies and procedures, approved by the fund's board and administered by a "swing pricing administrator," as discussed in more detail below. In addition, and consistent with the Commission's current swing pricing rule (rule 22c-1), with respect to master-feeder funds, only the master fund can apply swing pricing under our proposed rule. *See* proposed rule 2a-7(c)(2)(v).

[110] *See* proposed rule 2a-7(c)(2)(iii)(B) and proposed rule 2a-7(c)(2)(vi)(B). *See infra* Section III.D.4 for a more detailed analysis of the proposed market impact threshold and potential alternative approaches.

received to be priced at the next computed NAV. This is designed to address money market funds that compute their NAVs multiple times per day. For example, if a fund computes a NAV as of 12:00 p.m. and 4:00 p.m., the fund would determine if it had net redemptions for each pricing period and, if so, apply swing pricing for the corresponding NAV calculation.[111] Consistent with the approach taken by the Commission with respect to the swing pricing provision in rule 22c-1, an institutional fund with multiple share classes must determine whether it experienced net redemption activity across all share classes in the aggregate, rather than determining net redemption activity on a class by class basis.[112]

A mandatory swing pricing regime for net redemptions is intended to address funds' (or fund boards') likely reluctance to impose a voluntary swing pricing regime or voluntary liquidity fee. For example, while money market funds were permitted to impose liquidity fees on redeeming investors under rule 2a-7 if a fund had less than 30% of its assets invested in weekly liquid assets no money market fund imposed such fees during the March 2020 market turmoil. Moreover, even if all institutional money market funds recognized the benefits of charging redeeming investors for liquidity costs, we believe there is a collective action problem in which no fund would want to be the first to

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[111] Under the proposal a fund may estimate shareholder flow information to determine whether the fund has net redemptions for a pricing period and to determine the amount of net redemptions, provided the swing pricing administrator receives sufficient investor flow information to make a reasonable estimate. Although institutional funds generally have more timely flow information than other kinds of open-end funds, we believe reasonable estimates are appropriate in the absence of complete flow information.

[112] *See* Swing Pricing Adopting Release, *supra* footnote 102, at paragraph accompanying n.175. If a fund were to only include the transaction activity of a single share class, and were to swing one share class and not another, one share class would pay expenses incurred in the management of the fund's portfolio as a whole, which would generally be inconsistent with rule 18f-3.

adopt such an approach. We believe past experience with the existing liquidity fee regime supports a mandatory approach to dilution mitigation for institutional funds.

The proposed swing pricing requirement would not apply to net subscriptions because, for money market funds, we believe net redemptions are more likely to contribute to dilution and other liquidity costs than net subscriptions. Institutional funds have come under significant stress twice in the last 13 years in the face of high levels of redemptions—significant subscriptions into these funds have not had similar effects. Beyond these considerations, we also recognize that applying our proposed swing pricing requirements to institutional fund subscriptions would require these funds to make certain assumptions about how they invest cash from new subscriptions that would be inconsistent with the requirements in rule 2a-7.[113]

Our proposed money market fund swing pricing framework specifies how an institutional fund would determine its swing factor, which would differ based on the amount of net redemptions (see Figure 1, below). The swing factor would be determined by calculating identified types of costs the fund would incur, as applicable, by selling a pro rata amount of each security in its portfolio to satisfy the amount of net redemptions for the pricing period.[114]

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[113] For example, an institutional fund with weekly liquid assets below the regulatory threshold must invest only in weekly liquid assets and could not purchase a pro rata amount of each security in its portfolio, but our proposed swing pricing framework would require such a fund to assume the purchase of a pro rata amount of each portfolio holding if the framework extended to net subscriptions.

[114] *See* proposed rule 2a-7(c)(2)(iii). The swing factor is the amount, expressed as a percentage of the fund's net asset value, by which the fund adjusts its net asset value per share.

The requirement that a money market fund calculate costs to sell a pro rata amount of each security in its portfolio—a "vertical slice" of the portfolio—is designed to ensure that a fund's adjusted NAV incorporate the costs of selling its less liquid holdings, which may protect remaining shareholders from dilution and may discourage investors from redeeming quickly during periods of market stress to seek to avoid potential costs from a fund's future sale of less liquid securities.[115] For example, when investors redeem, if those redemptions are met through daily or weekly liquid assets, the redemptions leave the fund with less liquidity. This increases the likelihood that further redemptions could require the fund to sell less liquid assets or incur costs in rebalancing the portfolio. Although further redemptions may be more likely to require the fund to sell less liquid assets in times of market stress when redemptions may be elevated, redeeming investors depleting a fund's daily and weekly liquid assets can impose liquidity costs on the remaining shareholders as well as the fund generally, even during non-stressed periods. This depletion of a money market fund's liquidity can dilute the interests of remaining investors and also can create a first-mover advantage for investors who redeem in an attempt to avoid bearing the costs created by other investors' redemptions.

The factors a fund must take into account when calculating the swing factor vary depending on the size of net redemptions for the pricing period (see Figure 1, below). If the fund has net redemptions that do not exceed the market impact threshold, the swing factor reflects the spread costs and other transaction costs (*i.e.*, brokerage commissions,

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[115] As described in more detail below, a fund's swing pricing administrator may estimate costs and market impact factors for each type of security with the same or substantially similar characteristics and apply those estimates to all securities of that type rather than analyze each security separately.

custody fees, and any other charges, fees, and taxes associated with portfolio security sales), as applicable, from selling a vertical slice of the portfolio to meet those net redemptions.[116] Including the spread cost in the swing factor calculation effectively requires a fund to value a security in its portfolio at the bid price when the fund has net redemptions. We understand that money market funds may already price portfolio securities at the bid price when striking their NAVs.[117] As a result, the requirement to adjust the fund's current NAV by a swing factor when it has net redemptions that do not exceed the market impact threshold would generally affect institutional funds that use mid-market pricing to compute their current NAVs.[118] Spread costs and other transaction costs associated with portfolio security sales also are included in the Commission's current swing pricing rule for non-money market funds. Those transaction-related costs can create dilution for money market funds just as they can for other kinds of funds, and we are including them in this proposal for the same reasons the Commission included them in the current swing pricing rule.[119]

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116 *See* proposed rule 2a-7(c)(2)(iii)(A). Put another way, the fund must take into account these factors if it has net redemptions in any amount. If a fund has net redemptions that exceed its market impact threshold, it must also apply a market impact factor.

117 *See* FASB ASC 820-10-35-36C. Generally accepted accounting principles ("GAAP") provide that if an asset measured at fair value has a bid price and an ask price (for example, an input from a dealer market), the price within the bid-ask spread that is most representative of fair value in the circumstances shall be used to measure fair value, and that the use of bid prices for asset positions is permitted but not required for these purposes.

118 *See* FASB ASC 820-10-35-36D (stating that use of mid-market pricing as a practical expedient for fair value measurements within a bid-ask spread is not precluded). Very generally, mid-market pricing values a security at the average of its bid price and ask price. Since a seller generally asks for a higher price for a security than a buyer bids for that security, the mid-market price is incrementally higher than the bid price for a security, but lower than its ask price.

119 Our proposed rule requires a money market fund to estimate the costs that would result

If net redemptions exceed the market impact threshold, a fund's swing factor would also be required to include good faith estimates of the market impact of selling a vertical slice of a fund's portfolio to satisfy the amount of net redemptions for the pricing period. The fund would estimate market impacts for each security in its portfolio by first estimating the market impact factor. This factor is the percentage decline in the value of the security if it were sold, per dollar of the amount of the security that would be sold, under current market conditions. Then, the fund would multiply the market impact factor by the dollar amount of the security that would be sold if the fund sold a pro rata amount of each security in its portfolio to meet the net redemptions for the pricing period.[120]

We understand that it may be difficult to produce timely, good faith estimates of the market impact of selling a pro rata portion of each instrument the fund holds. Recognizing these difficulties, and because many securities held by institutional funds have similar characteristics and would likely incur similar costs if sold, the proposed rule would permit a fund to estimate costs and the market impact factor for each type of security with the same or substantially similar characteristics and apply those estimates to all securities of that type in the fund's portfolio, rather than analyze each security separately.[121] As part of this process, we believe it would be reasonable to apply a market impact factor of zero to the fund's daily and weekly liquid assets, since a fund could

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from selling a vertical slice of its portfolio on a given day. Accordingly, our proposed rule does not incorporate the separate reference to near-term costs that is included in the general swing pricing rule. *See* 17 CFR 270.22c-1(a)(3)(i)(C).

120 *See* proposed rule 2a-7(c)(2)(iii)(B).

121 *See* proposed rule 2a-7(c)(2)(iii)(C). A fund could, for example, determine the liquidity, trading, and pricing characteristics of a subset of securities justifies the application of the same costs and market impact factor to all securities of that type within its portfolio.

reasonably expect such assets to convert to cash without a market impact to fulfill redemptions (*e.g.*, because the assets are maturing shortly).

Figure 1: Swing Pricing Process

Step	Result
1. Did the fund have net redemptions?	**No:** Do not apply a swing factor **Yes:** Proceed to next step
2. Did the net redemptions exceed the market impact threshold?	**No:** Apply swing factor that includes spread costs (if the fund uses midmarket pricing) and other transaction costs of selling a vertical slice of the fund's portfolio **Yes:** Apply swing factor that includes spread costs (if the fund uses midmarket pricing), other transaction costs, *and market impact factor* of selling a vertical slice of the fund's portfolio

We recognize that the market impact of selling a vertical slice of the fund's portfolio is likely to be negligible when net redemptions are small, and estimating the market impact of selling a security can be challenging. As a result, we are proposing to require funds to include market impact in their swing factors only when net redemptions exceed the market impact threshold. To establish the amount of net redemptions that should trigger application of the market impact factor, we reviewed historical flow information for institutional money market funds over a nearly five-year period.[122] During this time, institutional funds had daily outflows greater than 4% on approximately

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[122] *See infra* Section III.D.4 for a more detailed analysis of the proposed market impact threshold and potential alternative approaches. The analysis is based on daily flows of institutional prime and institutional tax-exempt funds reported in CraneData on 1,228 days between December 2016 and October 2021. As of September 2021, CraneData covered 87% of the funds and 96% of total assets under management, resulting in a count of 37 institutional prime funds and 10 institutional tax-exempt funds.

5% of trading days.[123] At these heightened levels of outflows, market impacts are designed to estimate the full liquidity costs of selling a vertical slice of a money market fund's portfolio because, for a money market fund's less liquid investments, market impacts may impose significant costs on a fund, particularly when net redemptions are large or in times of stress. We also propose to allow the swing pricing administrator to apply a market impact factor at a lower amount of net redemptions. This flexibility is designed to recognize that there may be circumstances in which a smaller market impact threshold would be appropriate to mitigate dilution of fund shareholders, such as when a fund holds a larger amount of less liquid investments or in times of stress.[124] We believe a fund's swing pricing administrator, responsible for the day-to-day administration of the fund's swing pricing program and therefore familiar with the fund's redemption patterns and the operational requirements of the swing pricing program, would be well positioned to determine whether a smaller market impact threshold could be beneficial for the fund's investors to help mitigate dilution. To address the concerns the Commission expressed in 2016 that subjective estimates of market impact costs could grant excessive discretion in the determination of a swing factor, we also are providing additional parameters for

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[123] The proposed definition of market impact threshold would require a fund to divide 4% of the fund's net asset value by the number of pricing periods to arrive at the amount of net redemptions that would trigger the threshold. In recognition that some institutional funds have multiple pricing periods per day, and the number of pricing periods may vary among funds, this aspect of the definition is designed to provide a threshold that would apply more consistently to funds with different numbers of pricing periods, as opposed to a static figure applicable to all funds.

[124] For example, investors that invest in funds with less liquid portfolios may accept the risk of larger swings because they believe that the fund's less liquid portfolio could generate higher returns.

estimating market impact to make the calculation more objective as discussed above.[125] These requirements should help to limit subjectivity that could be abused, and proposed recordkeeping rules would require funds to document their market impact factors, facilitating our staff's review and oversight of money market fund swing pricing.[126]

With respect to application of a swing factor, a fund with multiple share classes must use the same swing factor for each share class. Because the economic activity causing dilution occurs at the fund level, it would not be appropriate to employ swing pricing at the share class level to target such dilution.[127] In addition, when an institutional fund applies the swing factor to its net asset value, it must round the adjusted current net asset value per share to a minimum of the fourth decimal place in the case of a fund with a $1.0000 share price or an equivalent or more precise level of accuracy for money market funds with a different share price (*e.g.*, $10.000 per share, or $100.00 per share).[128]

We are not proposing an upper limit on a fund's swing factor. The Commission included a 2% upper limit in the current swing pricing rule in light of concerns that,

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125 *See* Swing Pricing Adopting Release, *supra* footnote 101, at paragraphs accompanying nn. 143 and 148. Specifically, a fund's market impact factor calculation for a security would reflect the percentage decline in the value of the security if it were sold, per dollar of the amount of the security that would be sold, under current market conditions, multiplied by the dollar amount of the security that would be sold if the fund sold a pro rata amount of each security in its portfolio to meet the net redemptions for the pricing period.

126 *See* proposed rule 31a-2(a)(2).

127 *See* Swing Pricing Adopting Release, *supra* footnote 101, at paragraph accompanying n.178.

128 *See* proposed rule 2a-7(c)(1)(ii). This provision is designed to provide the same level of pricing precision that an institutional fund must calculate with respect to its floating NAV.

without an upper limit, a fund's application of swing pricing could operate as a "de facto gate" or place an undue restriction on investors' ability to redeem.[129] We believe the more specific parameters in this proposal for determining a fund's swing factor sufficiently mitigate these concerns. Further, if a fund were to experience such high costs, we believe it would be appropriate for redeeming investors to bear the costs their redemptions create for the benefit of remaining investors. Given our experience with investor behavior in March 2020, we also believe that requiring redeeming investors to internalize the liquidity costs of their redemptions would make investors consider potential redemption requests more carefully, particularly during periods of market stress, and would prevent remaining investors from bearing costs imposed on the fund by redeeming investors.

Finally, we are proposing several requirements related to the administration of the proposed swing pricing requirement. Specifically, a money market fund's swing pricing policies and procedures must be implemented by a board-designated administrator (the "swing pricing administrator"), and the administration of the swing pricing program must be reasonably segregated from portfolio management of the fund and may not include portfolio managers.[130] The Commission's current swing pricing rule also requires the board to designate a swing pricing administrator and the administration of a swing pricing program that is reasonably segregated from portfolio management of the fund and

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[129] Swing Pricing Adopting Release, *supra* footnote 102, at paragraph accompanying n.254.

[130] *See* proposed rule 2a-7(c)(2)(iv)(B) and proposed rule 2a-7(c)(2)(vi)(E). Consistent with the Swing Pricing Adopting Release, we believe that portfolio managers may have conflicts of interest with respect to setting the swing factor, and therefore we do not believe that they should be involved in setting the swing factor. *See* Swing Pricing Adopting Release, *supra* footnote 102, at paragraph accompanying n.293.

may not include portfolio managers. We are proposing the requirement here for the same reasons the Commission adopted it in that rule: requiring segregation of functions with respect to the administration of swing pricing will provide better clarity of roles and reduce the possibility of conflicts of interest in the administration of swing pricing.[131]

We also are proposing requirements to facilitate board oversight of swing pricing. A fund's board, including a majority of directors who are not interested persons of the fund, would be required to (1) approve the fund's swing pricing policies and procedures; (2) designate the swing pricing administrator; and (3) review, no less frequently than annually, a written report prepared by the swing pricing administrator describing the adequacy and effectiveness of the program.[132] We propose to amend rule 2a-7 to provide that a money market fund's board may not delegate its responsibilities to make the determinations that the proposed swing pricing provisions would require of the board.[133] The swing pricing administrator's report to the board would be required to describe (1) the administrator's review of the adequacy of the fund's swing pricing policies and procedures and the effectiveness of their implementation; (2) any material changes to the fund's swing pricing policies and procedures since the date of the last report; and (3) the administrator's review and assessment of the fund's swing factors and market impact threshold, including the information and data supporting the determination of the swing factors and the swing pricing administrator's determination to use a smaller market

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131 Swing Pricing Adopting Release, *supra* footnote 102, at paragraph accompanying n.293.

132 *See* proposed rule 2a-7(c)(2)(iv)(A) through (C).

133 *See* proposed rule 2a-7(j). Rule 2a-7(j) permits a money market fund's board of directors to delegate to the fund's investment adviser or officers the responsibility to make the determinations required to be made by the board of directors under the rule, except for certain specified provisions.

impact threshold, if applicable.[134] The proposal, like the Commission's current swing pricing rule, generally contemplates a board role in compliance oversight, rather than board involvement in the day-to-day administration of a fund's swing pricing program. Moreover, money market fund boards in particular have significant responsibilities regarding valuation- and pricing-related matters and should be well-positioned to provide effective oversight of the proposed swing pricing program. Accordingly, board approval of the swing pricing policies and procedures, and targeted review of the implementation of the fund's swing pricing program, will help ensure that swing pricing operates in the best interests of the fund's shareholders.

We are proposing recordkeeping requirements that are consistent with the requirements in our existing swing pricing rule. Specifically, a fund must maintain a written copy of the reports provided by the swing pricing administrator to the board for six years, the first two in an easily accessible place.[135] Similarly, existing recordkeeping requirements applicable to all money market fund procedures would require a fund to maintain its swing pricing policies and procedures for six years, the first two in an easily accessible place.[136]

Our proposed money market fund swing pricing framework considers and addresses the comments we received on the swing pricing option included in the PWG

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134 *See* proposed rule 2a-7(c)(2)(iv)(C)(*1*) through (*3*). The report to the board, which must be delivered no less frequently than annually, must include a description of the impact of the swing pricing program on eliminating or reducing liquidity costs associated with satisfying shareholder redemptions. The report must include the information and data that support the administrator's determination of the fund's swing factor each day.

135 *See* proposed rule 2a-7(h)(8).

136 *See* 17 CFR 270.2a-7(h)(1).

Report. Two of those comments supported a swing pricing requirement for money market funds.[137] One of these commenters suggested that swing pricing would directly address investor incentives for rapid redemptions from money market funds by ensuring that all investors who redeem are at risk for any losses created by a run, reducing or eliminating the incentive for early redemptions.[138] However, most commenters opposed a swing pricing requirement.[139] Several commenters suggested that swing pricing may not slow investor redemptions and would not have addressed the issues that occurred in March 2020.[140] One of these commenters suggested that imposing an additional cost through swing pricing would not materially affect investor behavior, particularly because an investor does not know at the time of placing its order whether the fund will adjust its NAV.[141] One commenter suggested that swing pricing may encourage investors to accelerate redemptions and seek a first-mover advantage.[142] Certain commenters also

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137 Comment Letter of Robert Rutkowski (Apr. 13, 2021); Comment Letter of the Americans for Financial Reform Education Fund (Apr. 12, 2021) ("Americans for Financial Reform Comment Letter").

138 Americans for Financial Reform Comment Letter.

139 *See, e.g.*, Fidelity Comment Letter; Western Asset Comment Letter; Comment Letter of the GARP Risk Institute (Mar. 16, 2021) ("GARP Risk Institute Comment Letter"); Healthy Markets Comment Letter; Comment Letter of PIMCO (Apr. 19, 2021) ("PIMCO Comment Letter"); SIFMA AMG Comment Letter; ICI Comment Letter I; Federated Hermes Comment Letter I; JP Morgan Comment Letter; BlackRock Comment Letter; Institute of International Finance Comment Letter; State Street Comment Letter; CCMC Comment Letter; T Rowe Price Comment Letter; Comment Letter of the Investment Company Institute (June 3, 2021) ("ICI Comment Letter III").

140 *See, e.g.*, Fidelity Comment Letter; Western Asset Comment Letter; GARP Risk Institute Comment Letter.

141 Fidelity Comment Letter.

142 Western Asset Comment Letter.

expressed concern that swing pricing would reduce investor interest in money market funds.[143]

We recognize that investors would not know at the time of order submission whether a fund would have net redemptions for that pricing period and swing the fund's price accordingly. However, we believe the implementation of a swing pricing regime for institutional funds may cause some investors in those funds to choose not to redeem, including in times of market stress, because those investors view the potential swing factor and price adjustment as more tangible than the uncertain possibility of potential future losses during times of reduced liquidity. We do not agree that, as some commenters suggested, a swing pricing requirement would encourage investors to preemptively redeem and seek a first-mover advantage.[144] Investors do not necessarily know whether the fund's flows during any given pricing period will trigger swing pricing or, if so, the size of the swing factor for that period. In addition, redeeming investors would bear the cost of liquidity under the proposed rule even when net redemptions are small, meaning that there would not be a clear advantage to redeeming earlier versus later. Rather than encourage preemptive redemptions, we believe the proposed swing pricing requirement would discourage excessive redemptions, particularly in times of stress, by requiring redeeming investors to bear liquidity costs. For example, investors may determine not to redeem during stress periods, or to redeem smaller amounts over a longer period of time, which could help reduce concentrated redemptions and associated

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143 BlackRock Comment Letter; GARP Risk Institute Comment Letter; Comment Letter of mCD IP Corporation (Apr. 12, 2021) ("mCD IP Comment Letter").

144 We are not aware of any evidence that the use of swing pricing in other jurisdictions has encouraged preemptive redemptions by investors.

liquidity pressures that institutional funds can face in times of stress. The swing pricing requirement also could cause some investors to move their assets to government money market funds, as certain commenters stated, to avoid the possibility of paying liquidity costs. Government money market funds may be a better match for investors unwilling to bear liquidity costs, however, in that government money market funds face lower liquidity costs. Even if for some investors the prospect of swing pricing does not alter redemption behavior on a particular day, we believe swing pricing results in fairer, non-dilutive pricing, particularly when there are heavy redemptions (even if the prospect of swing pricing does not materially change the level of those redemptions).

We recognize the Commission previously declined to extend swing pricing to money market funds.[145] In part, the Commission at that time believed that swing pricing was not necessary due to the extensive liquidity requirements applicable to such funds and the existing liquidity fee regime that is permitted under rule 2a-7.[146] However, our proposed reforms would remove the ability of money market funds to impose liquidity fees. In addition, although we are proposing to increase money market funds' liquidity requirements, based on our monitoring of the market stress in March 2020, we believe institutional money market funds may continue to have incentives to sell illiquid assets to meet redemptions in order to maintain a substantial buffer of liquid assets or may otherwise be required to sell illiquid assets in a stressed period. These incentives increase in times of stress but, as discussed above, a fund's sale of less liquid assets or depletion

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145 Swing Pricing Adopting Release, *supra* footnote 102, at section II.A.3.a.

146 *Id*. *See also* 17 CFR 270.2a-7(c)(2) "Liquidity fees and temporary suspensions of redemptions."

of daily and weekly liquid assets can create liquidity costs for the fund in both normal and stressed circumstances. We understand institutional investors frequently scrutinize liquidity levels in money market funds, and some portals through which they invest even have alerts to identify when a fund's reported liquidity levels decline, facilitating rapid redemptions when a fund's liquidity begins to decline. Thus, we believe that swing pricing would help institutional money market funds equitably allocate costs that may result from these redemptions and reduce other market externalities that increased liquidity requirements in our rules may not fully counter and that would no longer be countered by liquidity fees and redemption gates.

In addition to existing liquidity requirements and fee provisions, the Commission stated in 2016 that swing pricing may be less appropriate than a liquidity fee regime for money market funds because their investors, and particularly investors in stable NAV money market funds, are sensitive to price volatility.[147] We continue to believe that certain money market fund investors are sensitive to price volatility. Institutional money market funds are currently subject to a floating NAV requirement, however, and we do not believe that a swing pricing requirement would impose significant additional price volatility under normal market conditions.[148]

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147 Swing Pricing Adopting Release, *supra* footnote 101, at n.77 and accompanying text.

148 For example, as discussed above, we understand many institutional funds already use bid prices when valuing their portfolio investments and, thus, would not need to make additional price adjustments to reflect spread costs. In addition, based on historical flow data, we do not anticipate that funds would regularly experience net redemption amounts that trigger the market impact threshold.

We considered a framework that would apply the swing factor in the form of a liquidity fee rather than an adjustment to the fund's price.[149] A liquidity fee could be used to impose liquidity costs on redeeming investors and address dilution, much like a swing pricing-related price adjustment. We recognize that a liquidity fee framework could have certain advantages over a swing pricing requirement. For example, liquidity fees provide greater transparency for redeeming investors of the liquidity costs they are incurring. Liquidity fees also provide a mechanism for imposing liquidity costs directly on redeeming investors, without providing a discount to subscribing investors through a downward adjustment of the fund's transaction price that also must be taken into account to fully address dilution. However, we believe that a swing pricing requirement also has several advantages over liquidity fees. With swing pricing, a fund can pass liquidity costs on to redeeming investors in a fair and equal manner, without any reliance on intermediaries to achieve fair and equal application of costs. While money market funds and their intermediaries should be able to apply liquidity fees under the current rule, we also believe applying dynamic liquidity fees that can change in size from pricing period-to-pricing period may involve greater operational complexity and cost than swing pricing. For instance, liquidity fees may require more coordination with a fund's service providers because these fees need to be imposed on an investor-by-investor basis by each intermediary involved—which may be particularly difficult with respect to omnibus accounts.[150] On balance, we believe a swing pricing requirement has operational

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149 *See infra* Section III.D.5 (discussing our consideration of a liquidity fee alternative in more detail).

150 Swing pricing, on the other hand, would require some funds and intermediaries to create new systems and operational procedures (discussed below), but once those are in place,

advantages over liquidity fees, but we request comment on using a liquidity fee framework to impose liquidity costs and whether a liquidity fee alternative may have fewer operational or other burdens than the proposed swing pricing requirement while still achieving the same overall goals.[151] We also believe it is important for institutional funds to use a uniform approach to impose liquidity costs on redeeming investors, as we are concerned it would be confusing for investors if some funds applied swing pricing and other funds applied liquidity fees. In addition, we believe there are operational efficiencies with funds using a uniform approach under these circumstances.

Finally, we are not proposing to require retail money market funds to implement swing pricing because these funds historically have had smaller outflows than institutional funds during times of market stress, including during March 2020. As a result, based on historical experience, retail funds are less likely to have redemptions of a size that would deplete the increased liquidity buffers we are proposing to require. Retail investors also appear to focus less on a fund's reported liquidity levels.[152] Thus, retail fund managers may feel more comfortable drawing down available liquidity from the fund's daily liquid assets and weekly liquid assets to meet redemptions in times of stress, without engaging in secondary market sales that could result in significant liquidity costs. Investors typically view government money market funds, in contrast to prime money

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swing pricing would be incorporated in the process by which a fund strikes its NAV. Intermediaries would then effect customer transactions at NAV, as they do today, without further operational changes or coordination with the fund. *See infra* Section III.D.5.

151 *See infra* Section II.B.2 for a discussion of the operational considerations related to swing pricing.

152 *See supra* footnote 76 (discussing comments suggesting that retail investors were less sensitive to declines in weekly liquid assets in March 2020).

market funds, as a relatively safe investment during times of market turmoil, and government money market funds have seen inflows during periods of market instability. Government money market funds are also less likely to incur significant liquidity costs when they purchase or sell portfolio securities due to the generally higher levels of liquidity in the markets in which they invest. Due to these differences in investor behavior and liquidity costs among the various fund types, we are not proposing to require retail money market funds or government money market funds to implement swing pricing. Additionally, retail money market funds and government money market funds typically maintain a stable NAV. Investors in these funds, therefore, are accustomed to a stable NAV and may be more sensitive to price volatility. Requiring a retail or government money fund to adjust its NAV on any day it has net redemptions effectively would require these funds to operate with a floating NAV. We do not believe this is warranted in light of the differences in investor behavior and liquidity costs discussed above and the increased liquidity requirements we are proposing to apply to these funds.

We request comment on our proposal to require any money market fund that is not a government money market fund or a retail money market fund to implement swing pricing.

13. As proposed, should we require any money market fund that is not a government money market fund or a retail money market fund to implement swing pricing? Should we permit, but not require, these funds to implement swing pricing? If swing pricing were an optional tool, would money market funds use it? Would they be more likely to use optional

swing pricing or optional liquidity fees, such as those which rule 2a-7 currently contemplates?

14. Should we adopt a framework that requires a fund to adjust its NAV for spread, other transaction costs, or market impacts only when net redemptions exceed a certain percentage of a money market fund's net assets? If so, should swing pricing apply only when a fund's net redemptions exceed the market impact threshold under the proposed rule? Should funds be able to set their own threshold?
15. Should we permit a money market fund to reasonably estimate whether it has net redemptions and the amount of net redemptions, as proposed, or should we require a fund to determine the actual amount of net redemptions during a pricing period? Are there operational complexities to this approach?
16. As proposed, should money market funds that strike NAV multiple times per day be required to determine whether the fund has net redemptions and, if so, the swing factor to apply for each NAV strike (*i.e.*, for each pricing period)? Are there alternative approaches we should consider? If so, how could such an approach ensure that investors are treated fairly?
17. Should we require swing pricing for both net redemptions and net subscriptions, or only for net redemptions, as proposed? If we require swing pricing for both net redemptions and net subscriptions, what additional operational complexities or other considerations might arise? If we required swing pricing for net subscriptions, should we require funds

to assume the purchase of a vertical slice of the fund's portfolio and to value portfolio holdings at ask prices to reflect spread costs?

18. As proposed, should we require the swing factor to account for spread costs and other transaction costs if a fund's net redemptions are at or below the market impact threshold? What effect would this proposed requirement have on institutional funds that already use bid prices when striking their NAVs? Should we instead require an institutional fund to apply swing pricing when net redemptions are at or below the market impact threshold only if the fund does not price at the bid? What are the reasons a money market fund may not price at the bid currently? Do pricing services that money market funds use currently provide the option for funds to receive either mid or bid prices (or both)? Are there any impediments to a fund's ability to determine a bid price for each portfolio security? Should we remove or revise any of the cost categories that would apply when net redemptions are at or below the market impact threshold?
19. Should we require the swing factor to account for spread costs, other transaction costs, and market impacts if the amount of net redemptions exceeds the market impact threshold, as proposed? Should we remove or revise any of these cost categories? Do funds need additional guidance on any of these categories, such as application of the market impact factor? Would it be sufficient for funds experiencing net redemptions to apply a swing factor that accounts for spread costs and other transaction costs, but not market impacts? How effective would this approach be in achieving

the objectives of swing pricing discussed throughout this release, including the goal of fairly allocating the costs stemming from net redemptions and preventing those costs from giving rise to a first-mover advantage or dilution?

20. Do some or all institutional funds already estimate market impact factors, or perform similar analyses, to inform trading decisions? If so, would these funds' prior experience smooth the transition to making a good faith estimate of the market impact factor under the proposal? What difficulties might funds experience in developing a framework to analyze market impact factors and in producing good faith estimates of market impact factors for purposes of the proposed swing pricing requirement? Are there ways we could reduce those difficulties, while still requiring redeeming investors to bear costs that reasonably represent the costs they would otherwise impose on the fund and its remaining shareholders?

21. Should we define the market impact threshold as an amount of net redemptions for a pricing period that is the value of 4% of the fund's net asset value divided by the number of pricing periods, as proposed? Should the threshold at which a fund must include market impacts in its swing factor be higher or lower than proposed? In establishing the threshold amount, should we consider factors other than historical flows? Should the Commission periodically reexamine and adjust the market impact threshold to account for possible changes to redemption patterns and

market behavior over time? If so, how often? Does identification of a specific threshold in rule 2a-7 raise gaming or other concerns?

22. Rather than a set percentage of net redemptions, as proposed, should we define the market impact threshold on a fund-by-fund basis, with reference to a fund's historical flows (*i.e.*, should each fund be required to determine the trading days for which it had its highest flows over a set time period, and set its market impact threshold based on the 5% of trading days with the highest flows)? Should we define the market impact threshold on a fund-by-fund basis with reference to another metric other than net redemptions?

23. Should we permit the swing pricing administrator to use discretion to establish a smaller market impact threshold, as proposed? Should we prescribe the circumstances in which a smaller market impact threshold would be permitted, the timing of such a determination by the swing pricing administrator (*e.g.*, if a swing pricing administrator must formally establish a smaller market impact threshold that will remain in place for a period of time), disclosure of such a determination to the fund's investors, and recordkeeping requirements in support of the determination? Should we require the fund's board, instead of the swing pricing administrator, to approve use of a smaller market impact threshold? Should the swing pricing administrator or the board have flexibility to establish a larger market impact threshold than proposed? If so, what are the circumstances in which a fund should have flexibility to use a market impact threshold

that is larger than 4% of the fund's net asset value divided by the number of pricing periods?

24. Should money market funds be required to take into account other costs in determining their swing factors, beyond those proposed? For example, should we require consideration of borrowing costs that a fund may incur to facilitate shareholder redemptions?

25. Does our proposed requirement that a fund calculate the swing factor by assuming it would sell a pro rata amount of each security in its portfolio properly account for liquidity costs? Are there other considerations related to liquidity costs that the swing pricing framework should take into account, such as shifts in the fund's liquidity management or other repositioning of the fund's portfolio?

26. Should money market funds calculate the swing factor by estimating the costs of selling only the securities the fund plans to sell to satisfy shareholder redemptions during the pricing period, rather than calculating the swing factor based on the costs the fund would incur if it sold a pro rata amount of each security in its portfolio? If so, what would the operational consequences be?

27. Should the rule permit, rather than require, funds to follow the market impact threshold and swing factor calculations set forth in the rule? If so, what considerations or factors should the rule require a fund to consider when determining market impact thresholds and swing factors if the fund determines not to follow the threshold or calculations set forth in the rule?

For example, should the rule identify for these purposes the size, frequency, and volatility of historical net redemptions; the liquidity of the fund's portfolio; or the costs associated with transactions in the markets in which the fund invests?

28. Should money market funds be subject to a numerical limit on the size of swing factors? Should the limit instead be bound only by liquidity costs associated with net redemptions for a given pricing period, as proposed? Should we allow a fund to use a set swing factor, such as 2% or 3%, in times of market stress when estimating a swing factor with high confidence may not be possible? How would we define market stress for this purpose? Should a fund's adviser, or a majority of the fund's independent directors, be permitted to determine market conditions were sufficiently stressed such that the fund would apply the set swing factor? Are there other circumstances in which we should permit a fund to use a default swing factor?

29. Should we permit a fund to estimate costs and market impact factors for each type of security with the same or substantially similar characteristics and apply those estimates to all securities of that type in the fund's portfolio, as proposed? Should we define types of securities with the same or substantially similar characteristics? Should we provide additional guidance to support funds' determinations as to whether securities have the same or substantially similar characteristics?

30. Is it reasonable to apply a market impact factor of zero to the fund's daily and weekly liquid assets? If not, should funds estimate the market impact factor of such assets in the same way as other assets under the rule, or should we prescribe a different methodology for such assets? Are there particular circumstances in which it would not be reasonable for a fund to use a market impact factor of zero for daily and weekly liquid assets, such as in stressed market conditions?
31. Instead of specifying swing factor calculations and thresholds in the rule, should we require a fund to adopt policies and procedures that specify how the fund would determine swing pricing thresholds and swing factors based on principles set forth in the rule? If so, should the policies and procedures include the methodologies from the market impact threshold calculation we proposed (*i.e.*, net redemptions that are at or above the 95th percentile of likely fund redemptions, determined based on relevant historical data)? Should the policies and procedures include the swing factor calculation (*i.e.*, the percentage decline in the value of the security, per dollar of the amount of the security that would be sold, multiplied by the dollar amount of the security that would be sold if the fund sold a pro rata amount of each security in its portfolio to meet the net redemptions for the pricing period)? Should the policies and procedures define the market impact threshold with reference to a metric other than net redemptions? If we require policies and procedures, should we specify the market impacts and dilution costs that a fund's swing pricing program

must address, rather than specifying specific principles and calculation methodologies?

32. Should we require boards to appoint a swing pricing administrator? What individuals or entities are likely to fulfill the role of swing pricing administrator?

    Should we require board involvement in the day-to-day administration of a fund's swing pricing program in addition to its compliance oversight role? How might funds maintain segregation between portfolio management and swing pricing administration? Should a fund's chief compliance officer have a designated role in overseeing how the fund applies the proposed swing pricing requirement?

33. Should we require board review of a swing pricing report more or less frequently than annually? Should we require an evolving level of board review over time (*e.g.*, every quarter for the first year after implementation and then less frequently in following years as the fund gains experience implementing the swing pricing program under various market conditions)? Should we require the fund to disclose any material inaccuracies in the swing pricing calculation to the board (*e.g.*, as they arise, no less frequently than quarterly, or at some other frequency)?

34. Are there circumstances in which it would not be possible to estimate the market impact factor with a high degree of accuracy? If so, what modifications should we make to the proposal? For example, should we instead adopt a liquidity fee framework that is consistent with the current

liquidity fee provision in rule 2a-7, but without the link to weekly liquid asset thresholds?

35. How do the operational implications of swing pricing, as proposed, differ from the operational implications of an economically equivalent dynamic liquidity fee framework? What are the operational implications of a requirement for institutional money market funds to impose a liquidity fee that can change in size and that may need to be applied with some frequency? Are fund intermediaries equipped to apply dynamic fees on a regular basis? Would funds have insight into whether and how intermediaries apply these fees to redeeming investors?

36. If we adopt a liquidity fee framework instead of a swing pricing framework, should a fund be required to apply a liquidity fee under the same circumstances in which a fund would be required to adjust its net asset value under the proposed swing pricing requirement? Should a fund be required to use the same approach to calculating a liquidity fee as the proposed approach to calculating a swing factor? Alternatively, should different trigger events or calculation methods determine when a liquidity fee applies and the amount of such fee?[153]

37. If we adopt a liquidity fee framework instead of a swing pricing framework, should we adopt a simplified fee calculation methodology? If so, should the simplified liquidity fee framework be tied to the level of the fund's net redemptions, the liquidity of its portfolio holdings, or some

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[153] We also request comment on such liquidity fee alternatives in Section II.A.3.

other input? Should the simplified liquidity fee be a set percentage (*i.e.*, a 1% fee), or should the fee increase as redemptions, illiquidity, or other variables increase?

38. Should we permit or require retail or government money market funds to implement swing pricing? Would retail or government money market funds have access to sufficient flow information to apply swing pricing, or would changes to current order processing methods be needed to facilitate access to sufficient flow information?
39. Will our proposed swing pricing requirement cause investors to move their assets out of the funds that must implement a swing pricing program to funds that do not, such as government money market funds or short term bond funds? What are the potential costs and benefits associated with these decisions?
40. Should we provide any exclusions from the proposed swing pricing requirement for institutional funds? For example, should we provide an exclusion from the swing pricing requirement for affiliated money market funds created by an adviser for the purpose of efficiently managing cash across accounts within its advisory complex and not available to other investors?
41. Will swing pricing reduce the threshold effects that stem from investors seeking to redeem in advance of a liquidity fee or gate? Will swing pricing cause some investors to choose not to redeem because the potential swing

factor and price adjustment may be more tangible than the uncertain possibility of potential future losses during periods of market stress?

42. Will swing pricing protect money market fund investors that remain in the fund from dilution when the fund fulfills net shareholder redemptions? Would the increased liquidity requirements that we are proposing provide adequate protection from dilution without swing pricing? Should we impose additional liquidity requirements for institutional prime and institutional tax-exempt as an alternative to swing pricing?
43. How might swing pricing affect investor behavior in a period of liquidity stress? Will swing pricing increase money market fund resilience by reducing the first mover advantage that some investors may seek during periods of market stress? Will swing pricing encourage investors to redeem smaller amounts over a longer period of time because investors will not know whether the fund's flows during any given pricing period will trigger swing pricing and, if so, the size of the swing factor for that period?
44. Based on historical data, how would our swing pricing framework affect money market funds' NAVs under normal market conditions?
45. Rather than requiring institutional funds to adopt a swing pricing requirement, should we provide more than one approach to mitigate dilution in rule 2a-7 and require each institutional fund to determine its own preferred approach? If so, what approaches should the rule provide? Should we, for example, allow a fund either to adopt swing pricing or a

liquidity fee? Are there other options that would be appropriate under this approach? Should non-institutional funds be permitted or required to adopt an anti-dilution approach? Would funds' use of different approaches benefit investors by increasing investor choice or, conversely, would these differences confuse investors or make it more difficult for them to compare money market funds with each other?

2. Operational Considerations

Many investors use institutional money market funds as a cash management vehicle, and money market funds provide operational efficiencies to serve those investors. Institutional money market fund transactions often settle on the same day that an investor places a purchase or sell order, which has made these funds an important component of systems for processing and settling various types of transactions. Some institutional money market funds also provide shareholders with intraday liquidity and same-day settlement by pricing fund shares periodically during the day (*e.g.*, at 11 a.m. and 4 p.m.).

Many commenters opposed swing pricing due to operational issues, some of which are unique to money market funds.[154] For example, several commenters stated swing pricing is currently impractical because intermediaries typically report flows with a delay, so funds would not be able to determine net shareholder flows in time to apply a

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[154] *See, e.g.,* Healthy Markets Comment Letter; PIMCO Comment Letter; SIFMA AMG Comment Letter; ICI Comment Letter I; ICI Comment Letter III; Western Asset Comment Letter; Fidelity Comment Letter; State Street Comment Letter (expressing the view that swing pricing can be a valuable liquidity management tool, but it is not easily applicable to money market funds due to operational issues).

swing factor to the fund's net asset value, as needed.[155] One commenter suggested that a move from T+0 to T+1 settlement for money market fund subscriptions and redemptions could make it difficult for money market funds to act as sweep vehicles and could affect their status as cash equivalents.[156] Some commenters asserted that swing pricing works better in Europe due to fundamental differences between fund operations in the U.S. and Europe (*i.e.,* earlier trading cut-off times, greater use of currency-based orders versus share- or percentage-based transactions, and more direct-sold funds).[157] Several commenters expressed concern that intraday liquidity and/or same-day settlement would not be available to investors if money market funds were required to implement swing pricing.[158] In addition, many commenters also asserted that there would be significant costs and burdens from implementing systems to accommodate swing pricing.[159]

We acknowledge that swing pricing will introduce new operational complexity to institutional money market funds. A fund must determine whether it has net redemptions, and the size of those net redemptions, for the pricing period prior to striking its NAV, and this determination would need to be completed multiple times per day for funds that strike their NAV multiple times per day. However, institutional money market funds often impose order cut-off times that ensure that they receive flow data prior to striking

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155 *See, e.g.*, ICI Comment Letter I; PIMCO Comment Letter; Fidelity Comment Letter; Federated Hermes Comment Letter I.

156 JP Morgan Comment Letter.

157 PIMCO Comment Letter; Fidelity Comment Letter; BlackRock Comment Letter.

158 *See, e.g.*, ICI Comment Letter I; SIFMA AMG Comment Letter; Western Asset Comment Letter; Federated Hermes Comment Letter I; JP Morgan Comment Letter; Institute of International Finance Comment Letter; Comment Letter of the Committee on Capital Markets Regulation (May 24, 2021) ("CCMR Comment Letter").

159 *See, e.g.*, SIFMA AMG Comment Letter; JP Morgan Comment Letter; GARP Risk Institute Comment Letter.

their NAV.[160] Therefore, we believe many of them would have the necessary flow information to determine if there are net redemptions and the amount of those net redemptions.[161] This is in contrast to other open-end mutual funds, which may receive purchase and redemption requests from fund intermediaries even after the fund has struck its NAV. Due to the cut-off times that many institutional money market funds impose, we believe these money market funds would not be subject to significant operational impediments with respect to having timely flow information to inform swing pricing decisions. However, if an institutional money market fund does not impose order cut-off times, such a fund may face additional operational complexity and costs to implement a cut-off time or otherwise gather the necessary information to determine whether it has net redemptions.

In addition, if a fund has net redemptions, it would be required to calculate and apply the swing factor to the NAV prior to processing any shareholder transactions. Funds that strike their NAV multiple times per day may also need to calculate and apply a swing factor multiple times per day. We acknowledge that the proposed swing pricing requirement would impose additional administrative burdens and costs that money market funds do not face under current regulation, particularly if net redemptions exceed the market impact threshold or if the fund currently values its securities at the midpoint when striking its NAV. In addition, while we recognize that the need to calculate and apply a swing factor could delay a fund's ability to determine the transaction price, we

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160 Based on a 2021 staff analysis of information from CraneData, a majority of the prime institutional money market funds that impose an order cut-off time impose a 3:00 p.m. deadline for same-day processing of shareholder transaction requests.

161 *See* proposed rule 2a-7(c)(2)(ii)(A) (permitting reasonable high confidence estimates of investor flows to determine whether a fund has net redemptions).

believe it is unlikely that these delays would result in funds having to settle transactions on T+1, instead of T+0. We do not believe T+1 settlement is a likely result of the proposed swing pricing requirement because funds could take steps to maintain their ability to offer same-day settlement if they believe this type of settlement is important to institutional investors. For example, if necessary, relevant funds could choose to move their last NAV strike to an earlier point in the day.[162] Similarly, we understand that the proposed swing pricing requirement could cause relevant funds to reduce the number of NAV strikes they offer each day. For example, a fund may determine that instead of offering three or four separate NAV strikes each day, it may only offer one or two NAV strikes to ease implementation of the proposed swing pricing requirement. As a general matter, to the extent these operational changes are necessary, we believe they are warranted to address investor harm and dilution that occurs when redeeming investors reduce the fund's liquidity and impose other costs on remaining investors.

Prior money market fund reforms required institutional money market funds to adopt a floating NAV. This requirement can introduce some variability to a fund's NAV, particularly during times of market stress. In the years since the implementation of the floating NAV requirement, most institutional money market funds have typically been able to maintain a floating NAV that remains close to $1.0000 or another value chosen by the fund.[163] The addition of a swing pricing requirement could introduce greater

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[162] We understand that, to offer same-day settlement, funds must be able to complete Fedwire instructions before the Federal Reserve's 6:45 p.m. ET Fedwire cut-off time. *See, e.g.*, ICI Comment Letter I. Moving the last NAV strike to a somewhat earlier point in the day would provide the fund with additional time to calculate and apply its swing factor and take other necessary steps prior to the Fedwire cut-off time.

[163] For example, some funds maintain a floating NAV that remains close to some other amount, such as $100.00.

variability to a fund's NAV, particularly during volatile periods. For example, a fund's NAV could float downward if the markets for its portfolio securities becomes more illiquid and it has sizeable net redemptions, and the application of a swing factor at such a time would cause additional variation in the fund's NAV for shareholders that transact on that day. This variability may reduce the appeal of institutional money market funds as cash management tools if investors seek alternative investment options that are not subject to fluctuation in value at times of market stress. Further, while one commenter expressed concern that a swing pricing requirement would affect money market funds' use in sweep arrangements, it is our understanding that institutional prime and tax-exempt money market funds currently are not used in sweep arrangements.[164]

We request comment on the operational impact of our proposed swing pricing requirement, including:

46. Are there key operational impediments with the proposed swing pricing approach? Are there key inputs for the swing factor calculation, including the market impact factor, that are operationally and prohibitively difficult to ascertain within the time period needed to calculate the swing factor? Are there key inputs that are not operationally complex to obtain?
47. Are there instances in which an institutional money market fund permits intermediaries to submit subscription or redemption requests after the fund's cut-off time and to receive the NAV calculated for that cut-off

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[164] Based on analysis of information from CraneData. *See* JP Morgan Comment Letter (discussing the operational complexities of swing pricing for money market funds that are used in sweep platforms).

time, as long as the intermediary received the order prior to the fund's cut-off time? If so, when do such instances occur, and how frequently?

48. If institutional money market funds do not receive information about subscription or redemption requests early enough to make swing pricing decisions prior to striking NAV, are there rule-based solutions that could improve the timing considerations regarding shareholder flows and swing pricing (*e.g.*, by requiring intermediaries to provide earlier flow information to funds or by requiring specific cut-off times for transaction requests)?
49. What proportion of institutional prime and institutional tax-exempt money market funds use mid-market pricing? Would such funds incur greater operational costs than a fund that uses bid pricing to estimate the spread costs the fund would incur to sell a vertical slice of its portfolio?
50. Do commenters agree with our assessment that institutional prime and institutional tax-exempt money market funds could still offer same-day settlement if they are required to implement swing pricing? If not, how would swing pricing affect the ability of institutional money market funds to settle transactions on a T+0 basis? If these funds instead settle transactions on a T+1 basis, how might this affect investors?
51. How might swing pricing affect the ability of institutional money market funds to offer multiple NAV strikes per day? How many institutional money market funds will reduce the number of times they strike their NAV if we adopt swing pricing as proposed? How might investors be

affected if these funds are no longer able to offer multiple NAV strikes, or as many NAV strikes, per day?

52. Should we require all money market funds, including stable NAV money market funds, to adopt a floating NAV and to implement swing pricing?
53. Will investors seek alternative cash management investment options that are not subject to fluctuation in value at times of market stress to avoid the additional NAV variability that results from swing pricing? If so, which alternatives are investors most likely to use?
54. Are institutional prime and tax-exempt money market funds used in cash sweep arrangements?
55. What other operational changes would be required for funds to implement our swing pricing requirement as proposed?

3. Tax and Accounting Implications

When the Commission adopted the floating NAV requirement for all prime and tax-exempt money market funds sold to institutional investors in 2014, the Treasury Department amended its regulations to clarify money market funds' reporting obligations.[165] The Commission, the Treasury Department, and the IRS recognized the difficulties and costs associated with requiring floating NAV money market funds to comply with then-existing tax reporting requirements, and the amended Treasury regulations permit shareholders of floating NAV money market funds to use the "NAV method" to report gains and losses.[166] This method allows investors to aggregate gains

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165 Treas. Reg. § 1.446-7.

166 Treas. Reg. § 1.446-7.

and losses for the calendar year on their tax returns, rather than reporting individual transactions. The Treasury Department and the IRS also clarified that the "wash sale" rule does not apply to redemptions in floating NAV money market funds.[167] The Commission staff will continue discussions with the staff of the Treasury Department and IRS regarding the tax consequences of the proposed swing pricing requirement, including any implications for an investor's use of the NAV method of accounting for gain or loss on shares in a floating NAV money market fund or the exemption from the wash sale rules for redemptions of shares in these funds. We recognize that if the proposed swing pricing requirement modifies the method of accounting for gains or losses in relevant money market fund shares, or has other tax implications, the tax reporting effects of the proposed swing pricing requirement could increase burdens for investors.

From an accounting perspective, when institutional money market funds were required to adopt a floating NAV, the Commission stated its belief that an investment in a money market fund with a floating NAV would meet the definition of a "cash equivalent" for accounting purposes.[168] One commenter expressed concern that a swing pricing requirement could result in money market funds no longer qualifying as cash equivalents.[169] For the same reasons discussed in connection with the 2014 reforms, we

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[167] *See* Rev. Proc. 2014–45 (2014–34 IRB 388) and Method of Accounting for Gains and Losses on Shares in Money Market Funds; Broker Returns With Respect to Sales of Shares in Money Market Funds, RIN 1545-BM04 (June 15, 2016) [81 FR 44508 (July 8, 2016)] at 44511. Very generally, the wash sale rule prevents taxpayers from taking an immediate loss from the sale of securities if substantially identical securities are purchased within six months of the sale.

[168] 2014 Adopting Release, *supra* footnote 12, at section VI (amending the "Codification of Financial Reporting Policies" announced in Financial Reporting Release No. 1 (Apr. 15, 1982)).

[169] JP Morgan Comment Letter.

believe the adoption of swing pricing would not preclude shareholders from classifying their investments in money market funds as cash equivalents. Under normal circumstances, we believe an investment in a money market fund that applies swing pricing under our proposed rule would qualify as a "cash equivalent" for purposes of U.S. GAAP.[170] Under normal circumstances, we anticipate that fluctuations in the amount of cash received upon redemption from a fund that applies swing pricing would likely be small and would be consistent with the concept of a "known" amount of cash. However, as already exists today and, as noted by the Commission in 2014, events may occur that give rise to credit and liquidity issues for money market funds. If such events occur, shareholders would need to reassess if their investments in that money market fund continue to meet the definition of a cash equivalent.[171] This is already the case absent swing pricing, but we recognize that swing pricing may result in larger fluctuations in a fund's share price during such periods of stress.

Consistent with the approach the Commission established for mutual fund swing pricing, the proposed swing pricing requirement for institutional money market funds would affect certain aspects of financial reporting, as these funds would need to distinguish between the GAAP NAV per share and the transactional price adjustment to the NAV per share resulting from swing pricing ("swung price").[172] The GAAP NAV per share is the amount of net assets attributable to each share of capital stock outstanding at the close of the period, and the swung price (if the NAV per share is adjusted due to

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170 *See* FASB Accounting Standards Codification Master Glossary, *available at* https://asc.fasb.org/glossary.

171 *See* 2014 Adopting Release, *supra* footnote 12, at paragraph accompanying n.428.

172 *See* Swing Pricing Adopting Release, *supra* footnote 102, at section II.A.3.g.

swing pricing at period end) would represent the transactional price on the last day of the period, which is the NAV per share on the day with an adjustment by the swing factor.[173] Money market funds would disclose the GAAP NAV per share (which will reflect the effects of swing pricing throughout the reporting period, if applicable) on the statement of assets and liabilities. This allows users of the financial statements to understand the actual amount of net assets attributable to the fund's remaining shareholders at period end.[174] A money market fund using swing pricing would, however, include the impact of swing pricing in its financial highlights, and 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.[175] Swing pricing also affects disclosure of capital share transactions included in a fund's statement of changes in net assets.[176] Finally, a money market fund using swing pricing would be required to disclose in a footnote to its financial statements: (1) the general methods used in determining whether the fund's NAV per share will be adjusted due to swing pricing; (2) whether the fund's NAV per

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173 *See* 17 CFR 210.6-04.19 and FASB ASC 946-10-20 (discussing the concept of the GAAP NAV); Swing Pricing Adopting Release, *supra* footnote 102, at section II.A.3.g.

174 *See* Swing Pricing Adopting Release, *supra* footnote 102, at section II.A.3.g.

175 *See* Item 13 of Form N-1A (requiring disclosure of the swung price per share, if applicable, as a separate line item below the ending GAAP NAV per share on the financial highlights); FASB ASC 946-205-50-7 (requiring 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).

176 *See* 17 CFR 210.6-09.4(b). This rule requires funds to disclose the number of shares and dollar amounts received for shares sold and paid for shares redeemed. For funds that implement swing pricing, Regulation S-X would require the dollar amount disclosed to be based on the NAVs used to process investor subscriptions and redemptions, including those processed using swung prices during the reporting period.

share has been adjusted by swing pricing during the period; and (3) a general description of the effects of swing pricing on the fund's financial statements.[177]

We request comment on the tax and accounting implications of our proposed swing pricing requirement, including:

56. Would swing pricing impose additional complications with respect to the tax treatment of floating NAV money market fund investments? If so, how could we address such complications?
57. Would the implementation of swing pricing for institutional money market funds affect the treatment of shares of such funds as "cash equivalents" for accounting purposes? Would a cap on the swing factor, such as a 2% cap, reduce uncertainty about the treatment of institutional money market fund shares as "cash equivalents"?
58. Should the financial reporting effects of swing pricing differ for money market funds, as opposed to other types of mutual funds?
59. Are there other tax or accounting implications of institutional money market funds using swing pricing that we should address?

4. Disclosure

Form N-1A is used by open-end funds, including money market funds and ETFs, to register under the Investment Company Act and to register offerings of their securities under the Securities Act. 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

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[177] *See* rule 6-03(n) of Regulation S-X.

the fund's NAV and a description of the method used to value fund shares.[178] In 2016, when the Commission adopted the swing pricing rule for open-end funds that are not money market funds or ETFs, it adopted amendments to Item 6 of Form N-1A to enhance disclosure of an open-end fund's swing pricing procedures.[179] Under our proposal, institutional money market funds would be required to implement swing pricing policies and procedures and therefore would be required to comply with the swing pricing-related requirements of Form N-1A, described in greater detail below.

Money market funds subject to a swing pricing requirement under our proposal also would be required to respond to the existing swing pricing-related items on Form N-1A that were not historically applicable to these funds. Specifically, the form requires a fund to include a general description of the effects of swing pricing on the fund's annual total returns as a footnote to its risk/return bar chart and table.[180] Form N-1A also requires a fund that uses swing pricing to explain the fund's use of swing pricing, including its meaning, the circumstances under which the fund will use it, and the effects of swing pricing on the fund and investors.[181] While Form N-1A requires other funds that use swing pricing to disclose a fund's swing factor upper limit, we are proposing to exclude money market funds from this requirement because our proposal does not require these funds to establish a swing factor upper limit.[182]

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178 *See* Item 11(a)(1) of Form N-1A.

179 *See* Swing Pricing Adopting Release, *supra* footnote 102, at section II.B.1.

180 Items 4(b)(2)(ii) and (iv) of Form N-1A.

181 Item 6(d) of current Form N-1A.

182 Item 6(d) of proposed Form N-1A.

Money market funds use Form N-MFP to report key information to the Commission each month. As part of our swing pricing framework for money market funds, we propose to amend Form N-MFP to require money market funds that are not government funds or retail funds to use their adjusted NAV, as applicable, for purposes of reporting the series- and class-level NAV per share.[183] We also propose to require these funds to report the number of times the fund applied a swing factor over the course of the reporting period, and each swing factor applied.[184] Together, these reporting requirements would help the Commission monitor the size of the adjustments funds are making during normal and stressed market conditions, as well as the frequency at which funds apply swing factor adjustments.

Under current rule 2a-7, money market funds are required to provide on their websites the money market fund's net asset value per share as of the end of each business day during the preceding six months. This disclosure must be updated each business day as of the end of the preceding business day.[185] We are proposing to amend this provision to require money market funds that are not government funds or retail funds to depict their adjusted NAV, taking into account the application of a swing factor.[186] We believe that, when a fund applies swing pricing, the adjusted NAV is more useful for investors because it represents the price at which transactions in the fund's shares occurred.

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183 *See* Items A.20 and B.5 of current Form N-MFP; Items A.20 and B.6 of proposed Form N-MFP. As discussed below, we are also proposing to amend these current reporting requirements to require funds to provide series- and class-level NAVs per share as of the close of each business day, rather than as of the close of business on each Friday during the month reported. *See infra* Section II.F.2.c.

184 *See* Item A.22 of proposed Form N-MFP.

185 17 CFR 270.2a-7(h)(10)(iii).

186 *See* proposed rule 2a-7(h)(10)(iii).

We request comment on swing pricing disclosure requirements as applicable to money market funds, including:

60. Are the existing swing pricing-related disclosure obligations on Form N-1A appropriate for money market funds? In addition to the question regarding the swing factor's upper limit, are there other existing obligations that should not be applied to money market funds?
61. Would more information be useful to shareholders or other market participants? If so, what additional information should we require to be disclosed on Form N-1A, Form N-MFP, or elsewhere (*e.g.,* fund websites or other marketing materials)? When should we require such disclosure?
62. Should we require institutional funds to report the number of times the fund applied a swing factor and each swing factor applied, as proposed? Should we require the median, highest, and lowest (non-zero) swing factor applied for each reporting period on Form N-MFP, rather than requiring disclosure of each swing factor applied? Should we require these funds to provide additional information about swing pricing in their monthly reports on Form N-MFP, such as the swing pricing administrator's determination to use a lower market impact threshold (if applicable)? Should we separately require funds to disclose information about market impact factors, such as how many times a market impact factor was included in the swing factor each month and the size of those market impact factors (*e.g.*, either the size of any market impact factor applied, or the median, highest, and lowest (non-zero) amount)?

63. As proposed, should we require an institutional fund to use its adjusted NAV, as applicable, for purposes of current requirements to disclose a fund's NAV on its website and the series- and class-level NAV disclosure requirements on Form N-MFP? Should we require an institutional fund to indicate, for each NAV reported, whether a swing factor was applied (*i.e.*, whether the NAV was "adjusted")? As an alternative to reporting the adjusted NAV, should we provide that the website and Form N-MFP NAV disclosures should not include a swing factor adjustment? If so, why would the unadjusted NAV be more useful for these purposes? Alternatively, should we require an institutional fund to disclose both its adjusted NAV and its unadjusted NAV on the fund's website or on Form N-MFP? What are the advantages and disadvantages of requiring funds to disclose both figures?
64. Requirements to disclose NAVs per share on fund websites and on Form N-MFP require NAVs per share as of the close of business on a given day, while some funds may have multiple pricing periods and multiple NAVs each day. Should we require a fund to disclose its NAV per share for each pricing period, instead of the end-of-day NAV per share only? Would this additional transparency be helpful for investors, or would it make NAV disclosure less useful for investors by increasing the number of data points without significantly improving the value of the data?
65. Will daily website disclosure of fund flows and the adjusted NAV facilitate gaming of swing pricing or preemptive runs by investors that

wish to redeem in advance of a fund imposing a swing factor on a particular day? If so, how? Are there changes we should make to reduce the potential for gaming?

C. Amendments to Portfolio Liquidity Requirements

1. Increase of the Minimum Daily and Weekly Liquidity Requirements

Currently, rule 2a-7 requires that a money market fund, immediately after acquisition of an asset, hold at least 10% of its total assets in daily liquid assets and at least 30% of its total assets in weekly liquid assets.[187] Assets that make up daily liquid assets and weekly liquid assets are cash or securities that can readily be converted to cash within one business day or five business days, respectively.[188] These requirements are designed to support funds' ability to meet redemptions from cash or securities convertible to cash even in market conditions in which money market funds cannot rely on a secondary or dealer market to provide liquidity.[189]

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[187] *See* 17 CFR 270.2a-7(d)(4)(ii) and (iii) (rule 2a-7(d)(4)(ii) and (iii)); *see also supra* footnote 22 and accompanying paragraph. Tax-exempt money market funds are not subject to the daily liquid asset requirements due to the nature of the markets for tax-exempt securities and the limited supply of securities with daily demand features. *See* 2010 Adopting Release, *supra* footnote 20, at n.243 and accompanying text.

[188] Daily liquid assets are: cash; direct obligations of the U.S. Government; certain securities that will mature (or be payable through a demand feature) within one business day; or amounts unconditionally due within one business day from pending portfolio security sales. *See* rule 2a-7(a)(8). Weekly liquid assets are: cash; direct obligations of the U.S. Government; agency discount notes with remaining maturities of 60 days or less; certain securities that will mature (or be payable through a demand feature) within five business days; or amounts unconditionally due within five business days from pending security sales. *See* rule 2a-7(a)(28).

[189] See 2010 Adopting Release, *supra* footnote 20, at n.213 and accompanying and following text.

In March 2020, significant outflows from prime funds caused general reductions in these funds' daily liquid assets and weekly liquid assets. Although only one institutional prime fund reported weekly liquid assets below the 30% threshold, it is likely that other funds would have breached daily liquid asset or weekly liquid asset thresholds at the time if they had used daily liquid assets or weekly liquid assets to meet redemptions. As previously discussed, because the fee and gate provisions in rule 2a-7 incentivized funds to maintain weekly liquid assets above 30%, many funds took other actions (*e.g.*, selling longer-term assets or receiving financial support) to meet redemptions and remain above the minimum liquidity threshold. Some funds experienced redemption levels that would have depleted required levels of daily liquid assets or weekly liquid assets, if they had been used. For example, the largest weekly outflow in March 2020 was around 55%, and the largest daily outflow was about 26% (both well above the respective weekly liquid asset and daily liquid asset thresholds of 30% and 10%).[190] Further, since the fee and gate provisions in rule 2a-7 incentivized funds to maintain weekly liquid assets above the current threshold, the proposed removal of the fee and gate provisions from rule 2a-7 could have the effect of reducing fund liquidity levels by eliminating such incentives. Accordingly, we are proposing to increase daily and weekly liquid asset requirements to 25% and 50%, respectively.[191] We believe that these increased thresholds will provide a more substantial buffer that would better equip money market funds to manage significant and rapid investor redemptions, like those

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190 *See supra* section I.B; *see also* Prime MMFs at the Onset of the Pandemic Report, *supra* footnote 41, at 2-3. According to Form N-MFP filings, no prime money market fund reported daily liquid assets declining below the 10% threshold in March 2020.

191 *See* proposed rule 2a-7(d)(4)(ii) and (iii).

experienced in March 2020, while maintaining funds' flexibility to invest in diverse assets during normal market conditions.

Several commenters supported increasing the minimum liquidity requirements, believing that such increases could make money market funds more resilient during times of market stress.[192] Several commenters acknowledged that historically, most prime money market funds have maintained liquidity levels well above the regulatory minimums in normal market conditions.[193] Some commenters asserted that raising the thresholds to the levels that most funds already maintain would provide a more sufficient liquidity buffer.[194] One commenter suggested that requiring sufficiently higher weekly liquid asset levels would provide investors with confidence that funds hold adequate liquidity during periods of market uncertainty, thereby reducing the likelihood of a run.[195] This commenter stated that an increased weekly liquid assets requirement, along with the removal of the tie to fees and gates, would most effectively address the structural vulnerabilities in money market funds that were exposed in March 2020. Some commenters suggested that the Commission analyze and monitor market data to ensure that any new thresholds promote the goal of improving the resilience of money market

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192 *See e.g.*, ICI Comment Letter I; Comment letter of Samuel G. Hanson, David S. Scharfstein, Adi Sunderam, Harvard Business School (Apr. 12, 2021) ("Prof. Hanson et al. Comment Letter"); Dreyfus Comment Letter (suggesting increasing the weekly liquid asset minimum to 35%); Fidelity Comment Letter (supporting higher liquidity requirements for institutional prime money market funds specifically).

193 Dreyfus Comment Letter; SIFMA AMG Comment Letter; Western Asset Comment Letter; ICI Comment Letter I (stating that "institutional prime money market funds on average held 44 percent of their assets in weekly liquid assets, and retail prime money market funds held on average 41 percent of their assets in weekly liquid assets").

194 Dreyfus Comment Letter; ICI Comment Letter I.

195 Fidelity Comment Letter.

funds during times of market stress while preserving the benefits that investors have come to expect from money market funds.[196]

Other commenters opposed any increase in the minimum liquidity management requirements.[197] These commenters argued that such a change would likely decrease the yield of prime money market funds. They asserted that such a decrease in yield might reduce the spread between prime and government money market funds, which could ultimately decrease investor demand for prime money market funds. Further, some commenters stated that most fund managers have shown discipline in maintaining liquidity in excess of the existing thresholds.[198] Some of these commenters asserted that this practice will continue such that increasing the minimum regulatory requirements would result in funds holding even greater amounts of daily and weekly liquid assets at levels that may be higher than is necessary or appropriate.[199] One commenter asserted that such an increase could have the unintended effect of encouraging "barbelling," in which fund managers compensate for the impact on expected yield by increasing the maturity risk of their remaining assets, potentially making the fund's portfolio more susceptible to volatility overall.[200] Lastly, one commenter stated that an increase in the

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196 ICI Comment Letter I; Fidelity Comment Letter.

197 *See e.g.*, Western Asset Comment Letter; Wells Fargo Comment Letter; JP Morgan Comment Letter; SIFMA AMG Comment Letter (recommending that, if the Commission does increase the weekly liquid asset threshold, it do so incrementally to observe the effects of an increased threshold on portfolio management and investor demand for money market funds).

198 Wells Fargo Comment Letter; JP Morgan Comment Letter; Western Asset Comment Letter (noting that reporting and transparency requirements encourage managers to maintain liquid assets in excess of the existing weekly liquid asset threshold).

199 SIFMA AMG Comment Letter; Western Asset Comment Letter.

200 Western Asset Comment Letter.

minimum liquidity management requirements is likely to have marginal impact because the redemption behavior in March 2020 was motivated by a concern that money market funds would implement fees and gates. This commenter asserted that if fees and gates are no longer tied to weekly liquid asset thresholds, increasing the liquidity requirements is unlikely to have a material impact on investor behavior.[201]

We believe it is important for money market funds to have a strong source of available liquidity to meet daily redemption requests, particularly in times of stress, when liquidity in the secondary market can be less reliable for many instruments in which they invest. For example, many industry commenters discussed difficulties selling commercial paper in March 2020.[202] One commenter explained that, in the commercial paper market, market participants who want to sell commercial paper frequently must ask the bank from whom they purchased the paper to bid it back in the secondary markets, and banks typically are unwilling to bid commercial paper from issuers if they are not a named dealer on the issuer's program. [203] The commenter asserted that in March 2020, banks declined to bid for commercial paper even where the bank sold the commercial paper or was a named dealer in the issuer's program. The proposed increased liquidity requirements are designed to provide a stronger liquidity buffer for funds to meet redemptions even during periods of market stress when secondary markets may be illiquid.

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201 SIFMA AMG Comment Letter.

202 *See, e.g.*, Western Asset Comment Letter; Invesco Comment Letter; BlackRock Comment Letter; ICI Comment Letter I; State Street Comment Letter.

203 *See* BlackRock Comment Letter.

Moreover, we disagree with the assertion from some commenters that higher liquidity thresholds would likely decrease the demand for prime money market funds or encourage riskier portfolio construction and "barbelling." As discussed below, for the past several years, prime money market funds have maintained levels of liquidity that are close to or that exceed the proposed thresholds, without generally barbelling.[204] This demonstrates that funds have the ability to operate with the proposed minimum liquidity levels while continuing to serve as an efficient and diversified cash management tool for investors. In addition, while we acknowledge that requirements to provide daily liquid asset and weekly liquid asset levels on funds websites and on Form N-MFP may encourage funds to hold liquidity buffers above the regulatory minimums, as some commenters suggested, this would not be required by our rules nor would it be necessarily an expected outcome. For example, funds may be more likely to operate as they did prior to the adoption of fee and gates provision in rule 2a-7, where they generally maintained liquidity levels slightly above the regulatory thresholds and dropped below those thresholds as needed.[205]

To aid in the determination of new daily liquid asset and weekly liquid asset thresholds, we created hypothetical portfolios and stress tested them using the redemption patterns of institutional prime funds from March 16 to 20, 2020, when prime money

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[204] *See* BlackRock Comment Letter (stating that it has not seen evidence that barbelling was a problem in March 2020, or that money market fund portfolios were generally structured with a barbell). We similarly have not found significant use of barbelling strategies among money market funds.

[205] *See infra* Section II.C.2 (proposing to maintain the existing regulatory requirement that if a money market fund's portfolio does not meet the minimum daily liquid asset or weekly liquid asset threshold, the fund may not acquire any assets other than daily liquid assets or weekly liquid assets, respectively, until it meets these minimum thresholds).

market funds experienced their heaviest outflows.[206] Our analysis calculated the probability that a fund would have breached its liquid asset limits under various daily liquid asset and weekly liquid asset combinations during this period. The analysis estimates that if a fund held only the required minimum liquidity thresholds of 10% daily liquid assets and 30% weekly liquid assets, the fund would have a 32% chance of exhausting its available liquidity and needing to sell less liquid assets on at least one day during the five-day period. The analysis further reflects that a fund that held 25% daily liquid assets and 50% weekly liquid assets during the same period would have a 9% chance of running out of liquid assets to meet redemptions on at least one day. At these liquidity thresholds, a fund would have a near 2% chance of running out of available liquidity on days 1, 2, and 5, and about a 5% chance of exhausting available liquidity on days 3 and 4. The analysis also assessed higher liquidity levels, such as 50% daily liquid assets and 60% weekly liquid assets. At these levels, a fund would not have exhausted its available liquid assets on any day during the five-day period.

Based on this analysis and other considerations discussed in this section, we are proposing to increase the minimum liquidity requirements to 25% daily liquid assets and 50% weekly liquid assets.[207] While these proposed liquidity levels do not reduce a fund's

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206 Each hypothetical portfolio was created using a specific daily liquid asset and weekly liquid asset value (and, for the weekly liquid asset value, the hypothetical portfolio used one of 20 separate distribution bins of assets maturing within 2 to 5 business days, which were created to match the actual distribution observed on Form N-MFP). The analysis yielded 840 possible outcomes for each daily liquid asset and weekly liquid asset combination that were used to calculate the probability that a fund would run out of available liquidity on days 1, 2, 3, 4, and/or 5, representing March 16 to 20, 2020. Because a fund could run out on one or multiple days, our analysis also calculated the probability available liquidity would run out on at least one of the days.

207 *See* proposed rule 2a-7(d)(4).

liquidity risk to zero, we believe that, based on the analysis above, the proposed thresholds would be sufficiently high to allow most money market funds to manage their liquidity risk in a market crisis. Moreover, the proposed increase in funds' required daily and weekly liquid assets would be paired with the proposed removal of liquidity fees and redemption gates from rule 2a-7. These two proposed changes, together, should reduce incentives for managers to avoid using liquidity buffers and therefore allow them to use the increased amounts of required daily and weekly liquid assets to meet redemptions without the concern that using the assets could lead to runs to avoid a fee or gate. We also believe that the proposed liquidity buffers are sufficiently high to allow funds to use their available liquidity as needed, without raising investor concerns that the fund will rapidly run out of weekly liquid assets or daily liquid assets merely because its liquidity has dropped below the proposed 25% or 50% thresholds.

The proposed liquidity buffers of 25% daily liquid assets and 50% weekly liquid assets are generally consistent with the average liquidity levels prime money market funds have maintained over the past several years. According to analysis of Form N-MFP data from October 2016 to February 2020, the average amount of daily liquid assets and weekly liquid assets for prime money market funds was 31% and 49%, respectively. The same analysis also showed that approximately 20% of prime money market funds had daily liquid assets above 40% and weekly liquid assets above 60% over the same period. We recognize that at the higher levels of liquidity that funds typically have maintained, if money market funds had used their liquidity buffers in March 2020, many would have been able to fulfill redemptions requests without selling longer-term portfolio securities or receiving sponsor support. However, we understand that rule 2a-7's fee and gate

provisions have been a significant motivating factor for funds to maintain liquidity buffers well above the current regulatory minimums. If we adopt the proposed removal of the tie between the potential imposition of fees and gates and a fund's liquidity, we are concerned that funds may subsequently reduce their liquidity levels and not be equipped to handle future stress. As we saw in March 2020, markets can become illiquid very rapidly in response to events that fund managers may not anticipate. The failure of a single fund to anticipate such conditions may lead to a run affecting all or many funds. We think it would be ill-advised to rely solely on the ability of managers to anticipate liquidity needs, which may arise from events the money market fund manager cannot anticipate or control. Thus, we are proposing modified liquidity requirements that are more in line with the typical levels of liquidity that funds have held over the past several years. If adopted, these increased liquidity requirements should limit the potential effect on fund liquidity that may otherwise arise from removing the fee and gate provisions from rule 2a-7. With the exception of tax-exempt money market funds, which will continue to be exempt from the daily liquid asset requirements, our proposal does not establish different liquidity thresholds by type of fund.[208] Although outflows in March 2020 were more acute in institutional prime money market funds than in retail prime money market funds, we do not know that redemption patterns would be the same in future periods of market turmoil, particularly without official sector intervention to support short-term funding markets.[209] In addition, while the proposal would require

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[208] *See supra* footnote 187 (discussing the current exception tax-exempt funds have from the required daily liquid asset investment minimum).

[209] As an example, if retail investors are merely slower to act initially in periods of market stress, retail prime and tax-exempt funds may need higher liquidity levels to meet ongoing redemptions if a stress period is not relatively brief.

retail prime funds to maintain higher levels of liquidity than they have historically maintained on average, the resulting larger liquidity buffers would increase the likelihood that these funds can meet redemptions without significant dilution.[210] Moreover, retail prime money market funds invest in markets that are prone to illiquidity in stress periods, and increased liquidity requirements would provide protections so that these funds can meet redemptions in times of stress without additional tools such as liquidity fees, redemption gates, or swing pricing. We believe that a uniform approach encourages sufficient liquidity levels across all money market funds, thereby reducing the potential incentive for investors to flee from funds that might otherwise be perceived as holding insufficient liquidity during market stress events.

The PWG Report and the Commission's associated Request for Comment considered the creation of a new liquidity requirement category, such as a biweekly liquid asset requirement.[211] Commenters expressed general opposition to a new liquidity category for money market funds.[212] Commenters suggested that such a category would increase regulatory complexity and overcomplicate the regulatory framework without additional benefit.[213] Commenters also expressed skepticism that issuers would

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210 Based on analysis of Form N-MFP data, retail prime money market funds maintained average daily liquid assets of 24% and average weekly liquid assets of 42% during the period of October 2016 through February 2020. In contrast, institutional prime fund averages during this period were 37% and 54%, respectively.

211 *See* PWG Report at 26.

212 *See, e.g.*, ICI Comment Letter I; SIFMA AMG Comment Letter; Federated Hermes Comment Letter I; Wells Fargo Comment Letter; BlackRock Comment Letter.

213 ICI Comment Letter I; SIFMA AMG Comment Letter; Wells Fargo Comment Letter; JP Morgan Comment Letter (asserting that "[money market funds] typically already hold assets with a well distributed range of maturities, with longer-dated positions constantly rolling down towards maturity").

underwrite assets with a two-week maturity, as there is a very limited issuance market for assets in the biweekly maturity category.[214] After considering these comments, we are not proposing to introduce a new category of liquidity requirements. We believe that a new category, such as a requirement for biweekly assets, would be an extension of the weekly liquid asset threshold without significant benefits. This is because we expect that money market funds would likely meet a biweekly requirement in the same way that they meet the weekly liquid asset thresholds, by letting longer-dated securities roll down in maturity.[215] We believe it would be more efficient to increase the weekly liquid asset requirement directly, as proposed, than to increase it indirectly by adopting a new biweekly liquid asset requirement.

Another commenter recommended more substantial asset restrictions for prime money market funds, such as a requirement that prime money market funds hold 25-50% of their weekly liquid assets in short-term U.S. Government securities, including U.S. Government agency securities.[216] This commenter suggested that enhancing the quality, not only the quantity, of a prime money market fund's liquid assets would enhance investor confidence that such funds can withstand market stress. We do not believe that this type of requirement would have a significant effect, as most prime money market funds already hold a significant percentage of their weekly liquid assets in Treasuries and

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214 SIFMA AMG Comment Letter; JP Morgan Comment Letter; ICI Comment Letter I (noting that commercial paper, for example, is not currently issued with 14-day maturities).

215 ICI Comment Letter I.

216 CCMR Comment Letter.

government agency securities.[217] We continue to believe that grounding our definitions of liquid assets in terms of maturity, rather than type of security, is the best framework to determine a fund's available liquidity for purposes of rule 2a-7. Instead of requiring funds to hold a separate threshold of particular securities within the daily and weekly liquid asset basket, as the commenter suggested, we believe that increasing the minimum liquidity threshold, paired with removing fees and gates from rule 2a-7, would be a more efficient manner of enhancing funds' access to liquidity and thus their ability to withstand market stress.

We request comment on our proposal to increase the minimum liquidity requirements to 25% daily liquid assets and 50% weekly liquid assets, including the following:

66. Would our proposal to increase the minimum liquidity requirements make money market funds more resilient during times of market stress? Would a lower or higher threshold of daily or weekly liquid assets better allow most money market funds' to meet potential redemptions without selling less liquid asset in periods of market stress? Should we instead propose to raise the minimum daily liquid asset threshold to 20%, 30%, or 35% and/or the minimum weekly liquid asset threshold to 40%, 55%, or 60%, for example? Why or why not?

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[217] *See* Baklanova, Kuznits, and Tatum, How Do Prime MMFs Manage Their Liquidity Buffers (July 21, 2021), *available at* https://www.sec.gov/files/how-do-prime-mmfs-manage-liquidity-buffers.pdf (finding that investments in Treasuries and government agency securities account, on average, for approximately 35% of prime funds' weekly liquid assets).

67. Would our proposal to remove fee and gate provisions from rule 2a-7 encourage funds to maintain lower levels of liquidity during normal market conditions? If so, do our proposed increased minimum liquidity requirements limit the potential effect on fund liquidity that may otherwise arise from our proposal to remove fee and gate provisions from rule 2a-7? Should the proposed minimum liquidity thresholds be higher or lower to accommodate such effect? Why or why not?
68. To what extent would our proposed amendments reduce money market fund liquidity risk?
69. What, if any, impacts would our proposed amendments have on yields of prime money market funds? What would be the effect on yields of lower or higher minimum liquidity requirements? Would increased or decreased yields effect the desirability of prime money market funds for retail and/or institutional investors? Would the proposed amendments decrease the availability of prime money market funds?
70. How would the proposal affect funds' current incentives to maintain liquidity buffers well above the regulatory minimums? Would funds be more likely to hold daily liquid asset and weekly liquid asset amounts that are closer to the regulatory minimums? Absent our proposed increase to the minimum liquidity requirements, would the existing requirement for funds to disclose liquidity information on a daily basis on their websites provide sufficient incentive for funds to maintain liquidity buffers well above the current regulatory minimums?

71. Would our proposal increase the propensity for prime money market funds to "barbell" or invest in potentially risker and longer-term assets outside of the portion of the fund's portfolio that qualifies as daily liquid assets or weekly liquid assets? Why or why not?
72. Should the proposal alter the current framework for which type of money market funds are subject to the minimum liquidity requirements? For example, should the requirements distinguish between prime money market funds and government money market funds? Should institutional money market funds and retail money market funds be subject to the same minimum liquidity requirements, as proposed? Does the fact that institutional money market funds experienced more significant outflows than retail money market funds during recent stress events reflect that institutional money market funds should be subject to a different minimum liquidity requirement than retail money market funds? Why or why not?
73. Should the proposed minimum liquidity requirements vary based on external market factors? For example, would a countercyclical minimum liquidity threshold, in which the minimum liquidity thresholds decline when net redemptions are large or when the Commission provides temporary relief from the higher liquidity threshold, better incentivize money market funds to use liquidity during times of significant

outflows?[218] If so, what specific factors should trigger or inform a countercyclical minimum liquidity threshold?

74. Would the increased liquidity thresholds, along with other changes we are proposing, affect investors' interest in monitoring funds' liquidity levels or potential sensitivity to declines below the liquidity thresholds? Are there any changes we should make to reduce potential investor sensitivity to a fund dropping below a liquidity threshold? For example, should we remove, or reduce the frequency of, website liquidity disclosure?

75. Should the Commission consider revising the definition of daily liquid assets and/or weekly liquid assets in any way? For instance, should we amend the definition of weekly liquid assets to limit the amount of non-government securities that can qualify as weekly liquid assets? Alternatively, would explicitly limiting the amount of investment in commercial paper and certificates of deposit for prime money market funds alleviate stresses in the short-term funding market during market downturns? Why or why not?

76. Should the Commission propose a new category of liquidity requirements to rule 2a-7? Would a new category of liquidity requirements with slightly longer maturities than the current requirements (*e.g.*, biweekly liquid

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218 The PWG Report discussed a countercyclical liquidity buffer as a potential reform option. Most commenters opposed this option and expressed concern that it may create a new trigger event that could accelerate redemptions. *See* SIFMA AMG Comment Letter; Western Asset Comment Letter; JP Morgan Comment Letter; Fidelity Comment letter; Dreyfus Comment Letter. A few commenters supported this option. *See* ABA Comment Letter; mCD IP Comment Letter.

assets) significantly enhance funds' near-term portfolio liquidity during periods of stress in the short-term funding markets? What would be the positive and negative effects of a new category of liquidity requirements with slightly longer maturities?

2. Consequences for Falling Below Minimum Daily and Weekly Liquidity Requirements

Currently, rule 2a-7 requires that a money market fund comply with the daily liquid asset and weekly liquid asset standards at the time each security is acquired.[219] A money market fund's portfolio that does not meet the minimum liquidity standards has not failed to satisfy the daily liquid asset and weekly liquid asset conditions of rule 2a-7; the fund simply may not acquire any assets other than daily liquid assets or weekly liquid assets, respectively, until it meets these minimum thresholds. We are proposing to maintain this approach with respect to the increased minimum liquidity thresholds.

Commenters generally supported maintaining the current rule's regulatory requirements when a fund's liquidity drops below the daily or weekly liquidity threshold instead of including some type of automatic penalty that would apply either to the fund or to the fund sponsor under these circumstances, which was an option the PWG Report discussed.[220] Some commenters noted that the Investment Company Act and the rules thereunder do not otherwise impose automatic penalties on funds or fund sponsors.[221] A

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[219] Rule 2a-7(d)(4)(ii) and (iii). Compliance with the minimum liquidity requirement is determined at security acquisition, because we believe that a money market fund should not have to dispose of less liquid securities (and potentially realize an immediate loss) if the fund fell below the minimum liquidity requirements as a result of investor redemptions.

[220] ICI Comment Letter I; SIFMA AMG Comment Letter; Fidelity Comment Letter.

[221] SIFMA AMG Comment Letter; Fidelity Comment Letter.

commenter also noted that imposing a penalty on the fund sponsor might further disincentivize managers from using their existing liquidity in times of market stress.[222] Several commenters suggested that the reforms could require a money market fund to overcorrect (*e.g.*, invest only in liquid assets until its weekly liquid assets exceed a specified percentage above the regulatory minimum) if it fell below the minimum liquidity threshold.[223] One of these commenters further suggested that a fund be prohibited from purchasing any non-overnight instruments until it reaches the required liquidity minimum threshold.[224]

As we saw in March 2020, markets can become illiquid very rapidly in response to events that money market fund managers may not anticipate. This demonstrates that it is important that fund managers have the ability to sell their most liquid assets to meet investor redemptions to avoid selling less liquid assets into a declining market, which would likely have negative effects on the fund and its remaining shareholders. Accordingly, we believe that any regulatory amendments should allow funds to deploy their excess liquidity during times of market stress, when such liquidity is typically needed most. Imposing a new regulatory penalty when a fund drops below a minimum liquidity threshold, or requiring the fund to "overcorrect" in that case, could have the unintended effect of incentivizing some fund managers to sell less liquid assets into a declining market rather than use their excess liquidity during market stress events out of

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222 Fidelity Comment Letter.

223 SIFMA AMG Comment Letter; Fidelity Comment Letter; JP Morgan Comment Letter; Dreyfus Comment Letter.

224 SIFMA AMG Comment Letter.

fear of approaching or falling below the regulatory threshold.[225] We therefore are proposing to maintain the existing regulatory requirement that if a money market fund's portfolio does not meet the minimum daily liquid asset or weekly liquid asset threshold, the fund may not acquire any assets other than daily liquid assets or weekly liquid assets, respectively, until it meets these minimum thresholds.

Moreover, the proposed rule would require a fund to notify its board of directors when the fund has invested less than 25% of its total assets in weekly liquid assets or less than 12.5% of its total assets in daily liquid assets (a "liquidity threshold event").[226] The proposal would require a fund to notify the board within one business day of the liquidity threshold event.[227] The proposed rule would also require the fund to provide the board with a brief description of the facts and circumstances that led to the liquidity threshold event within four business days after its occurrence.[228] Some commenters supported requiring a fund to notify its board following the fund falling below a liquidity threshold.[229]

The liquidity levels that trigger a liquidity threshold event reflect that a fund's liquidity has decreased by more than 50% below at least one of the proposed minimum daily and weekly liquid asset requirements. This provision is designed to facilitate appropriate board notification, monitoring, and engagement when a fund's liquidity

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225 To some extent, this could be similar to the effect we observed in March 2020 of the tie between the weekly liquid asset threshold and the potential imposition of liquidity fees or redemption gates, when some fund managers sold less liquid assets to avoid dropping below the regulatory threshold.

226 *See* proposed rule 2a-7(f)(4)(i).

227 *Id.*

228 See proposed rule 2a-7(f)(4)(ii).

229 JP Morgan Comment Letter; SIFMA AMG Comment Letter.

levels decrease significantly below the minimum liquidity requirements.[230] We understand that many funds today provide regular reports to fund boards regarding fund liquidity, often in connection with quarterly board meetings. We believe that the proposed board notification requirement would provide the board with timely information in a context that would better facilitate the board's understanding and monitoring of significant declines in the fund's liquidity levels.

We request comment on the proposed regulatory requirements for falling below the minimum liquidity thresholds, including the following:

77. Should the Commission impose penalties on funds or fund sponsors when a fund falls below a required minimum liquidity requirement? For example, should we require funds to "over-correct" to a higher liquidity level after dropping below a minimum requirement? If so, how long should a fund be required to maintain a higher level of liquidity after the over-correction?
78. Should rule 2a-7 impose a minimum liquidity maintenance requirement, *i.e.*, require that a money market fund maintain the minimum daily liquid asset and weekly liquid asset thresholds at all times? What are the advantages and disadvantages of this approach?
79. Are the proposed requirements for the fund to notify its board upon a liquidity threshold event appropriate? Would the proposed requirement

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[230] Similar to these proposed board notification requirements, we are proposing that funds file reports on Form N-CR upon a liquidity threshold event. *See infra* Section II.F.1.a.

help boards monitor significant declines in fund liquidity levels? Do funds currently notify the board when they fall below a certain liquidity level?

80. Should the liquidity levels that trigger a liquidity threshold event be 50% of the minimum liquidity requirements, as proposed? Would a lower or higher percentage be more appropriate (*e.g.,* 10%, 25%, or 75% below the minimum liquidity requirements)? Alternatively, should the rule require funds to notify the board if the fund falls below the minimum liquidity requirements (*i.e.*, below 25% daily liquid assets or 50% weekly liquid assets)?

81. Should the rule also require the fund to provide a subsequent notification to its board when the fund's liquidity returns above an identified threshold (*e.g.*, the fund's liquidity is at or above the 25% daily liquid asset requirement and 50% weekly liquid asset requirement)?

82. Is one business day sufficient time to allow a fund to notify its board following a liquidity threshold event? Is four business days sufficient time to allow a fund to provide its board with a brief description of the facts and circumstances that led to a liquidity threshold event? Should the rule provide more or less time for either or both of these notifications? Should the rule require either or both of these notifications to the fund's board to be written?

83. Are the proposed requirements for the fund to notify the board of the facts and circumstances that led to a liquidity threshold event appropriate? Would the fund provide these details without the rule's requirements

(either on its own or after board inquiry)? Should the rule require other specific information in this notification? If so, what information and why? For example, should the rule require a fund to provide a reasonable estimate for when the fund will come back into compliance with the minimum liquidity requirements?

84. Should we instead require board notification if a fund has dropped below a particular liquidity level for a specified period (*e.g.*, if the fund has dropped below the minimum liquidity requirements, or some lower amount, for at least 3, 5, or 10 consecutive business days)? Should a liquidity threshold event for purposes of the board notification requirement align with liquidity threshold events that funds would be required to report on Form N-CR, such that any changes to the scope of the proposed Form N-CR reporting requirement would also apply to the board notification requirement?

3. Proposed Amendments to Liquidity Metrics in Stress Testing

Each money market fund is currently required to engage in periodic stress testing under rule 2a-7 and report the results of such testing to its board.[231] Currently, one aspect of periodic stress testing involves the fund's ability to have invested at least 10% of its total net assets in weekly liquid assets under specified hypothetical events described in rule 2a-7. The Commission chose the 10% threshold because dropping below this threshold triggers a default liquidity fee, absent board action, and thus, has consequences

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[231] *See* 17 CFR 270.2a-7(g)(8).

for a fund and its shareholders.[232] Because our proposal would no longer provide for default liquidity fees if a fund has weekly liquid assets below 10%, and our proposal would increase the weekly liquid asset minimum from 30% to 50%, we no longer believe that the rule should require funds to test their ability to maintain 10% weekly liquid assets under the specified hypothetical events described in rule 2a-7. Instead, we are proposing to require funds to test whether they are able to maintain sufficient minimum liquidity under such specified hypothetical events.[233] As a result, each fund would be required to determine the minimum level of liquidity it seeks to maintain during stress periods, identify that liquidity level in its written stress testing procedures, periodically test its ability to maintain such liquidity, and provide the fund's board with a report on the results of the testing.

For purposes of stress testing, we are proposing to permit each fund to determine the level of liquidity that it considers sufficient, instead of continuing to provide a bright-line threshold that all funds must use uniformly. We believe the proposed approach may improve the utility of stress test results because they would reflect whether the fund is able to maintain the level of liquidity it considers sufficient, which may differ among funds for a variety of reasons (*e.g.*, type of money market fund or characteristics of investors, such as investor concentration or composition that may contribute to large redemptions).

We request comment on the proposed amendments to stress testing requirements, including the following;

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232 *See* 2014 Adopting Release, *supra* footnote 12, at Section III.J.2.

233 *See* proposed rule 2a-7(g)(8)(i) and (g)(8)(ii)(A).

85. As proposed, should we remove the 10% weekly liquid asset metric from current stress testing requirements and instead require funds to determine the sufficient minimum liquidity level to test?

86. Should we instead identify a different liquidity threshold funds must test (*e.g.*, 15%, 20%, or 30% weekly liquid assets)? Under this approach, should we require stress testing to consider both weekly liquid assets and daily liquid assets? If so, what threshold should we use for daily liquid assets (*e.g.*, 5%, 10%, or 15%)?

D. Amendments Related to Potential Negative Interest Rates

Twice during the past 15 years, the Federal Reserve established the lower bound of the target range for the federal funds rate at 0% to spur borrowing and other economic activity in the face of economic crises. In 2008, a crisis that originated in the financial sector quickly spread to the rest of the U.S. economy, prompting the Federal Reserve to establish a target federal funds rate of 0-0.25% for the first time.[234] The Federal Reserve raised the target range for the federal funds rate in 2015, but the rise in rates from 2015 to 2018 was relatively short lived.[235] In early 2020, another crisis occurred, amid growing economic concerns related to the COVID-19 pandemic and an overall flight by investors to liquidity and quality. Once again, the Federal Reserve lowered the target range for the federal funds rate to 0-0.25%.[236] In this pervasive low interest rate environment, it is very

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234 Statement of the Federal Open Markets Committee, December 16, 2008, *available at* https://www.federalreserve.gov/newsevents/pressreleases/monetary20081216b.htm.

235 *See* Board of Governors of the Federal Reserve System, "Open Market Operations," *available at* https://www.federalreserve.gov/monetarypolicy/openmarket.htm.

236 Statement of the Federal Open Markets Committee, March 15, 2020, *available at* https://www.federalreserve.gov/newsevents/pressreleases/monetary20200315a.htm.

difficult for investors to generate substantial returns from investments in U.S. Treasury securities and other high quality government debt securities. This is true for money market funds, and particularly true for government money market funds, which must invest 99.5% or more of their assets in cash, government securities, and/or repurchase agreements that are collateralized fully.[237] Government and retail money market funds (or "stable NAV funds") can still maintain a non-negative stable share price while investing in instruments that yield a low but positive interest rate; however, if interest rates turn negative and the gross yield of a fund's portfolio turns negative, it would be challenging or impossible for the fund to maintain a non-negative stable share price. The fund would begin to lose money.

Despite keeping the lower bound of the federal funds rate target at zero for many years, some policymakers at the Federal Reserve have at times expressed the view that negative interest rates do not appear to be an attractive monetary policy tool in the United States.[238] However, other regulators and academics, including prior Federal Reserve leaders, have suggested policymakers could consider negative interest rates as a potential tool to counteract future economic slowdowns.[239] In addition, even if the Federal Reserve

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237 17 CFR 270.2a-7(a)(14). The term "government security," as defined in the Act, means any security issued or guaranteed as to principal or interest by the United States, or by a person controlled or supervised by and acting as an instrumentality of the Government of the United States pursuant to authority granted by the Congress of the United States; or any certificate of deposit for any of the foregoing. 15 U.S.C. 80a-2(a)(16).

238 *See, e.g.*, Minutes of the Federal Open Market Committee: October 29-30, 2019, *available at* "https://www.federalreserve.gov/monetarypolicy/files/fomcminutes20191030.pdf.

239 *See, e.g.*, "What tools does the Fed have left? Part 1: Negative interest rates," Ben S. Bernanke (March 18, 2016), *available at* https://www.brookings.edu/blog/ben-bernanke/2016/03/18/what-tools-does-the-fed-have-left-part-1-negative-interest-rates/ ("Overall, as a tool of monetary policy, negative interest rates appear to have both modest benefits and manageable costs").

does not lower the target federal funds rate below zero, market interest rates may still move into negative territory if the federal funds rate remains at or near zero for extended periods of time. Given the possibility that negative interest rates may occur during future periods of economic instability, in 2020 several money market fund sponsors issued investor education materials about the effects of negative interest rates.[240] Fund sponsors also published analyses of potential actions that government and retail money market funds could take in order to maintain a stable share price if the gross yield on their investments turns negative.[241]

Rule 2a-7, in its current form, does not explicitly address how money market funds must operate when interest rates are negative. However, rule 2a-7 states that government and retail money market funds may seek to maintain a stable share price by using amortized cost and/or penny-rounding accounting methods. A fund may only take this approach so long as the fund's board of directors believes that the stable share price fairly reflects the fund's market-based net asset value per share.[242] Accordingly, if negative interest rates turn a stable NAV fund's gross yield negative, the board may

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240 *See, e.g.,* "Negative interest rates: What you need to know" Wells Fargo Letter Asset Management (July 2020), *available at* https://www.wellsfargoassetmanagement.com/assets/public/pdf/insights/investing/negative-interest-rates-what-you-need-to-know.pdf; "Everything You Needed to Know About Negative Rates to Impress Your Boss" State Street Letter Global Advisors (June 2020), *available at* https://www.ssga.com/library-content/pdfs/cash/inst-cash-negative-interest-rate-piece.pdf.

241 *See, e.g.*, "Negative Rates: Could it happen in the US?" Invesco (March 31, 2020), *available at* https://www.Invesco.com/us-rest/contentdetail?contentId=798d6439a0331710VgnVCM1000006e36b50aRCRD&audienceType=Institutional; "Negative interest rates: What you need to know" Wells Fargo Asset Management (July 2020), *available at* https://www.wellsfargoassetmanagement.com/assets/public/pdf/insights/investing/negative-interest-rates-what-you-need-to-know.pdf.

242 17 CFR 270.2a-7(c)(1)(i).

reasonably believe the stable share price does not fairly reflect the market-based price per share, as the fund would be unable to generate sufficient income to support a stable share price. Under these circumstances, the fund would not be permitted to use amortized cost and/or penny-rounding accounting methods to seek to maintain a stable share price. Instead, the fund would need to convert to a floating share price.

In addition to the pricing provision described above, rule 2a-7 also includes certain procedural standards for stable NAV funds.[243] These standards, overseen by the fund's board of directors, include a requirement that the fund periodically calculate the market-based value of the portfolio ("shadow price") and compare it to the fund's stable share price. If the deviation between these two values exceeds ½ of 1% (50 basis points), the fund's board of directors must consider what action, if any, should be taken by the board, including whether to re-price the fund's securities above or below the fund's $1.00 share price (*i.e.*, "break the buck"). Regardless of the extent of the deviation, rule 2a-7 imposes on the board of a money market fund a duty to consider appropriate action whenever the board believes the extent of any deviation may result in material dilution or other unfair results to investors or current shareholders. We believe that, if interest rates turn negative, the board of a stable NAV fund could reasonably require the fund to convert to a floating share price to prevent material dilution or other unfair results to investors or current shareholders.

While these pricing provisions of rule 2a-7 apply specifically to government and retail money market funds, the rule also requires these funds and their transfer agents to have the capacity to redeem and sell securities at prices that do not correspond to a stable

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[243] 17 CFR 270.2a-7(g)(1).

price per share.[244] Accordingly, these funds and their service providers also must understand how the floating share price mechanism would operate when interest rates are negative. Government and retail money market fund transfer agents and other service providers generally should confirm that they have effective procedures to facilitate transactions for the fund if it were to switch to a floating share price.

We believe the pricing provisions of rule 2a-7 provide appropriate flexibility for a fund with a stable share price to respond to negative interest rates. While we are not proposing changes to the rule 2a-7 pricing provisions in relation to negative interest rates, we are proposing to expand government and retail money market funds' obligations to confirm that they can fulfill shareholder transactions if they convert to a floating share price. Specifically, we propose to require a government or retail money market fund (or the fund's principal underwriter or transfer agent on its behalf) to determine that financial intermediaries that submit orders—including through an agent—to purchase or redeem the fund's shares have the capacity to redeem and sell the fund's shares at prices that do not correspond to a stable price per share or, if this determination cannot be made, to prohibit the relevant financial intermediaries from purchasing the fund's shares in nominee name.[245] Funds would have flexibility in how they make this determination for each financial intermediary but would be required to maintain records identifying the intermediaries the fund has determined have the capacity to transact at non-stable share

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244 17 CFR 270.2a-7(h)(11).

245 *See* proposed rule 2a-7(h)(11)(ii). This proposed requirement would apply to each financial intermediary that submits orders, itself or through its agent, to purchase or redeem shares directly to the money market fund, its principal underwriter or transfer agent, or to a registered clearing agency. The term "financial intermediary" has the same meaning as in 17 CFR 270.22c-2(c)(1). *See* proposed rule 2a-7(h)(11)(iv).

prices and the intermediaries for which the fund was unable to make this determination.[246] We believe it is necessary that all parties concerned—stable NAV money market funds, their service providers, and their distribution network—are capable of processing transactions in a fund's shares in the event that the fund converts to a floating NAV. Rule 2a-7 already imposes this obligation on money market funds and their transfer agents. Because many investors purchase shares through financial intermediaries, however, we believe it is important that such intermediaries are able to continue to process shareholder transactions if a stable NAV fund converts to a floating NAV. Absent this capability, a money market fund would not actually be able to process transactions at a floating NAV, as currently required by rule 2a-7.

The pricing provisions of rule 2a-7 have now been in place for several years, and we believe fund sponsors are familiar with the operational requirements to operate a money market fund with a floating share price. This is especially true because all money market funds other than government and retail money market funds are currently required to operate with a floating share price. However, some fund industry representatives proposed different operational responses to negative interest rates. Specifically, some fund sponsors discussed a reverse distribution mechanism, whereby a government or retail money market fund would maintain a stable share price, despite losing value, by reducing the number of its outstanding shares. We understand that European money market funds used a reverse distribution mechanism for a period of time, before the European Commission determined this approach was not consistent with the 2016 EU

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[246] *See* proposed rule 2a-7(h)(11)(iii). Funds would be required to preserve a written copy of such records for a period of not less than six years following each identification of a financial intermediary, the first two years in an easily accessible place.

money market fund regulations.[247] While some have suggested that the reverse distribution mechanism was not confusing to European money market fund investors, nearly all of whom are institutional investors, we believe such a mechanism would not be intuitive for retail investors in government and retail money market funds. Under a reverse distribution mechanism, these investors would observe a stable share price but a declining number of shares for their investment in a fund that is generating a negative gross yield. We believe that investors may be misled by such a mechanism and assume that their investment in a fund with a stable share price is holding its value while, in fact, the investment is losing value over time.[248] In contrast, we believe investors would easily understand a decline in share prices in the event that a fund's gross yield turns negative. Due to the potentially misleading or confusing nature of the reverse distribution mechanism, we are proposing to amend rule 2a-7 to prohibit money market funds from operating a reverse distribution mechanism, routine reverse stock split, or other device that would periodically reduce the number of the fund's outstanding shares to maintain a stable share price.[249]

Having described considerations under rule 2a-7 that are relevant to negative interest rates, we seek comment on possible methods that government or retail money market funds could use to operate if interest rates turn negative. We also seek comment

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247 *See* ESMA Press Release, European Commission Letter on Money Market Fund Regulation (Feb. 2, 2018), *available at* https://www.esma.europa.eu/press-news/esma-news/european-commission-letter-money-market-fund-regulation.

248 Comment Letter of Jose Joseph (Apr. 13, 2021) ("Jose Joseph Comment Letter") (suggesting that if money market funds generate negative yields, "[u]nilaterally redeeming the shares[] by reverse distribution is like cheating" and that funds should instead inform shareholder and move to a floating NAV to be fair and transparent).

249 *See* proposed rule 2a-7(c)(3).

on our proposal to prohibit money market funds from operating a reverse distribution mechanism and our proposed provisions relating to whether a government or retail fund's distribution network can sell and redeem the fund's shares at non-stable prices per share.

87. Should the Commission mandate specific disclosure to investors or to the Commission if a fund's gross yield turns negative?

88. Would a reverse distribution mechanism or similar mechanism mislead or confuse investors? Would such a mechanism benefit investors? Would investors more easily understand a decline in share prices (*i.e.*, a floating share price), rather than a decline in the number of stable value shares (*i.e.*, a reverse distribution mechanism), in the event that a fund's gross yield turns negative?

89. Should we permit a stable NAV money market fund to engage in a routine reverse stock split, reverse distribution mechanism, or other mechanism by which the fund maintains a stable share price, despite losing value, by reducing the number of its outstanding shares? Should we permit only institutional government funds to engage in such a mechanism because institutional investors may be more likely to appreciate that the fund is losing value notwithstanding the lack of a change in the share price? If so, how should we define an institutional government fund for this purpose (*e.g.*, a government fund that does not have policies and procedures reasonably designed to limit all beneficial owners of the fund to natural persons; or a government fund that has policies and procedures reasonably designed to limit all beneficial owners to non-natural persons)? If we

permit the use of such a mechanism, how should a fund be required to communicate its operation to investors? Should the fund be required to take steps to make sure existing investors approve of a reverse distribution mechanism before operating such a mechanism? If so, what should those steps be?

90. Should all stable NAV money market funds be required to respond to negative interest rates in the same manner (*i.e.*, should all these funds be required to switch to a floating share price, or should each fund be permitted to respond to negative interest rates in a different manner)? If the rule permits funds to respond to negative interest rates on an individualized basis, should the rule prescribe specific options that are permissible? Would it be confusing for investors if each money market fund used a different method for absorbing a negative interest rate?
91. Would investors prefer a government or retail money market fund with a negative yield to implement a floating share price or a reverse distribution mechanism? Does the response differ depending on the type of investor? Does the response differ depending on the type of money market fund?
92. How likely are investors to remain invested in a money market fund with a negative gross yield? If investors redeem shares in a money market fund with a negative gross yield, where might they choose to invest their money instead?
93. How likely are fund sponsors to continue to operate money market funds in a pervasive negative interest rate environment? Are certain fund

sponsors (*e.g.*, bank-affiliated sponsors) more likely than others to continue to operate money market funds in a negative interest rate environment? Are sponsors more likely to continue to operate certain types of money market funds (*e.g.*, prime funds) in a negative interest rate environment?

94. As proposed, should we require a government or retail fund to determine that financial intermediaries in its distribution network can sell and redeem the fund's shares at non-stable prices per share? Should we, as proposed, require a fund to prohibit a financial intermediary from purchasing the fund's shares in nominee name on behalf of other persons if the fund cannot make such a determination? Are there alternative approaches we should take to make sure financial intermediaries are able to handle a fund's potential transition from using a stable NAV to a floating NAV?

95. As proposed, should we require a government or retail fund to maintain and keep current records identifying the intermediaries the fund has determined have the capacity to transact at non-stable share prices and the intermediaries for which the fund was unable to make this determination? Are there alternative ways of documenting this information that we should require? Should we require funds to periodically check against these records to make sure they are not using an intermediary that cannot transact at non-stable share prices?

96. Should we mandate or provide additional guidance around how a fund would determine that a financial intermediary can sell and redeem the

fund's shares at non-stable prices per share? Should we require a fund to maintain records of these determinations?

97. Should we require a fund to report to its board of directors the basis of its determinations that a financial intermediary has the capacity to redeem and sell securities issued by the fund at a price based on the current net asset value, including prices that do not correspond to a stable price per share? Should we require a fund to disclose the basis of such determinations publicly or to the Commission?

98. Should we require government and retail funds and their financial intermediaries to test their ability to redeem and sell securities issued by the fund at prices that do not correspond to a stable price per share? Should we require a fund to report the results of those tests to its board of directors? Should we require a fund to disclose the results of those tests to the Commission or publicly?

E. Amendments to Specify the Calculation of Weighted Average Maturity and Weighted Average Life

We are proposing to amend rule 2a-7 to specify the calculations of "dollar-weighted average portfolio maturity" ("WAM") and "dollar-weighted average life maturity" ("WAL").[250] WAM and WAL are calculations of the average maturities of all securities in a portfolio, weighted by each security's percentage of net assets. These calculations are an important determinant of risk in a portfolio, as a longer WAM and WAL may increase a fund's exposure to interest rate risks. We have found that funds use

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[250] *See* proposed amendments to rule 2a-7(d)(1)(ii) and (iii).

different approaches when calculating WAM and WAL under the current definitions in the rule. For instance, we understand that a majority of money market funds calculate WAM and WAL based on the percentage of each security's market value in the portfolio, while other money market funds base calculations on the amortized cost of each portfolio security. This discrepancy can create inconsistency of WAM and WAL calculations across funds, including in data reported to the Commission and provided on fund websites.[251] Although these inconsistencies are likely to be small, they could confuse investors that review funds' WAM and WAL and create inefficiencies for the Commission's monitoring of money market funds. Accordingly, we are proposing to amend rule 2a-7 to require that money market funds calculate WAM and WAL based on the percentage of each security's market value in the portfolio. We are proposing to require funds to use market value because all types of money market funds already determine the market values of their portfolio holdings for other purposes, while only certain money market funds use amortized cost.[252] Thus, we believe all money market funds can use this calculation approach with information they already obtain. We believe that these amendments will enhance the consistency of calculations for funds, while allowing the Commission to better monitor and respond to indicators of potential risk and stress in the market.

We request comment on the proposed clarification of WAM and WAL calculations, including the following:

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251 *See* Items A.11 and A.12 of Form N-MFP; 17 CFR 270.2a-7(h)(10)(i)(A).

252 Money market funds that use a floating NAV use market values when determining a fund's NAV, while money market funds that maintain a stable NAV are required to use market values to calculate their market-based price at least daily.

99. Should we require all money market funds to calculate WAM and WAL based on the percentage of each security's market value in the portfolio, as proposed? Should certain types of money market funds be excluded from this requirement or subject to a different requirement? If so, why? For instance, should we require money market funds that maintain a stable NAV to calculate WAM and WAL using the amortized costs of the portfolio?

100. Are there benefits to calculating WAM and WAL based on amortized cost of the portfolio instead of market value?

101. Are there other changes or additions that would improve the accuracy or consistency of the calculations of WAM or WAL? Should we provide additional guidance related to the proposed amendment?

F. Amendments to Reporting Requirements

1. Amendments to Form N-CR

Money market funds are required to file reports on Form N-CR when certain specified events occur.[253] Currently, a money market fund typically is required to file Form N-CR reports if a portfolio security defaults or experiences an event of insolvency, an affiliate provides financial support to the fund, the fund experiences a deviation between current net asset value per share and intended stable price per share, liquidity fees or redemption gates are imposed or lifted, as well as any optional disclosure made at the fund's discretion. We are proposing to add a new requirement for a money market fund to file a report on Form N-CR when the fund falls below a specified liquidity

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[253] *See* 17 CFR 270.30b1-8 (rule 30b1-8 under the Act).

threshold. We also propose to require funds to file Form N-CR reports in a structured data language. Further, we are proposing other amendments to improve the utility of reported information and to remove reporting requirements related to the imposition of liquidity fees and redemption gates under rule 2a-7.

a. Reporting of Liquidity Threshold Events

We propose to amend Form N-CR to require a fund to report when a liquidity threshold event occurs (*i.e.*, the fund has invested less than 25% of its total assets in weekly liquid assets or less than 12.5% of its total assets in daily liquid assets).[254] Currently, money market funds are required to provide information about the size of their weekly liquid assets and daily liquid assets on a daily basis on their websites.[255] We believe it is appropriate to require that a fund report when it falls below half of its 25% daily liquid asset and 50% weekly liquid asset minimum liquidity requirements, as this drop represents a significant decrease in liquidity. We believe this reporting would help investors, the Commission, and its staff monitor significant declines in liquidity, without having to monitor each money market fund's website.[256] The reports also would provide more transparency, as well as facilitate our monitoring efforts, by providing the related facts and circumstances of any liquidity threshold event.

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254 Proposed Part E of Form N-CR.

255 17 CFR 270.2a-7(h)(10)(ii)(A) and (B). Under these provisions, a money market fund must post prominently on its website a schedule, chart, graph, or other depiction that provides the percentages of the fund's total assets invested in daily liquid assets and in weekly liquid assets. This website disclosure must be updated each business day, as of the end of the preceding business day, and cover each business day during the preceding six months.

256 *See* JP Morgan Comment Letter (suggesting that money market funds be required to report to the Commission when they fall below a liquidity threshold).

Upon falling below either of the liquidity thresholds, the proposed amendments would require a fund to report certain information about the liquidity threshold event. When reporting a liquidity threshold event, the fund's report on Form N-CR would be required to include: (1) the initial date on which the fund falls below either the 25% weekly liquid asset threshold or the 12.5% daily liquid asset threshold; (2) the percentage of the fund's total assets invested in both weekly liquid assets and daily liquid assets on the initial date of a liquidity threshold event; and (3) a brief description of the facts and circumstances leading to the liquidity threshold event.[257] The proposed reporting requirement would apply when a fund falls below either threshold. Although a fund may not necessarily fall below both thresholds, we are proposing to require funds to disclose the percentages of both weekly liquid assets and daily liquid assets as of the initial date that either threshold is crossed.[258] We believe that reporting both weekly liquid asset and daily liquid asset levels would provide insight into a fund's short-term and immediate liquidity profile. The brief description of facts and circumstances would include additional details about the liquidity threshold event, which would better inform investors, the Commission, and our staff of events that lead to significant declines in liquidity.[259]

Consistent with the timing of current Form N-CR reporting items, the proposal would require a money market fund to file a report within one business day after occurrence of a liquidity threshold event; however, a fund could file an amended report

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[257] Proposed Items E.1 through E.4 of Form N-CR.

[258] Proposed Item E.3 of Form N-CR.

[259] Proposed Item E.4 of Form N-CR.

providing the required brief description of the facts and circumstances leading to the liquidity threshold event up to four business days after such event.[260] We believe it may take funds up to four business days to write and review a narrative description of the relevant facts and circumstances, particularly where the liquidity threshold event was caused by multiple or complex circumstances. If a fund has daily liquid assets or weekly liquid assets continuously below the relevant threshold for consecutive business days after reporting an initial liquidity threshold event, the proposal would not require additional Form N-CR reports to disclose that the same type of liquidity threshold event continues.[261]

We request comment on the proposed amendments to Form N-CR to report information related to liquidity threshold events:

102. Should we require money market funds to file reports on Form N-CR when they fall more than 50% below a minimum liquidity requirement, as proposed? How might liquidity reporting on Form N-CR affect money market funds' incentives to maintain weekly liquid assets and daily liquid assets above 25% and 12.5%, respectively, of total assets? How might this reporting affect investor behavior?

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260 Proposed Instruction to Part E of Form N-CR.

261 If a fund initially falls below only one threshold and then subsequently falls below the other threshold, the proposal would require a second Form N-CR report. For example, if a fund dropped below 25% weekly liquid assets on Tuesday and dropped below 12.5% daily liquid assets on Thursday, it would be required to file two separate reports to disclose each liquidity threshold event. Additionally, if a fund fell below either threshold and subsequently resolved the liquidity threshold event before an initial or amended report is filed, the fund would still be required to report the liquidity threshold event and the facts and circumstances leading to the liquidity threshold event.

103. Should a report on Form N-CR when a fund falls more than 50% below a liquidity threshold be filed confidentially with the Commission (*e.g.*, because investors can already see liquidity levels on funds' public websites and Form N-CR reporting may increase investor sensitivity to liquidity levels)? Or, in addition to the proposed public reporting when a fund falls more than 50% below a liquidity threshold, should we require funds to file confidential reports at a different level below a minimum liquidity requirement (*e.g.*, 25% below a minimum)? If we require funds to report certain information confidentially on Form N-CR, should that information be publicly available on a delayed basis and, if so, what is an appropriate delay (*e.g.*, 15, 30, or 60 days)?

104. Should we use a different daily liquid asset or weekly liquid asset level for determining when a fund must file a report on Form N-CR? If so, what level(s) should we use? For example, would 10%, 25%, or 75% (rather than 50%) below the minimum liquidity requirements be appropriate?

105. As proposed, should funds be required to report both their current weekly liquid asset and daily liquid asset levels even if only one of those thresholds is crossed?

106. Should funds be required to report each day they remain below either the 12.5% daily liquid asset threshold or the 25% weekly liquid asset threshold, or is just the initial date of liquidity threshold event sufficient? Should funds be required to subsequently report when a fund's

liquidity returns above an identified threshold (*e.g.*, to a level at or above the minimum liquidity requirements) or is the daily website disclosure of fund liquidity levels sufficient for this purpose?

107. As proposed, should we require funds to report liquidity threshold events within one business day of the relevant event? Is four business days sufficient for funds to file an amended report that includes a brief description of the facts and circumstances leading to the fund falling below either threshold? Should these reporting periods be longer or shorter?

108. Should any more, less, or other information be required in connection with liquidity threshold events?

b. Structured Data Requirement

We are proposing to require money market funds to file reports on Form N-CR in a structured data language.[262] In particular, we are proposing to require filing of Form N-CR reports in a custom eXtensible Markup Language ("XML") -based structured data language created specifically for reports on Form N-CR ("N-CR-specific XML"). We believe use of an N-CR-specific XML language would make it easier for money market funds to prepare and submit the information required by Form N-CR accurately, and would make the submitted information more useful to investors and the Commission. A

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262 *See* proposed General Instruction D of Form N-CR (specifying that reporting persons must file reports on Form N-CR electronically on EDGAR and consult the EDGAR Filer Manual for EDGAR filing instructions). *See also* 17 CFR 232.301 (requiring filers to prepare electronic filings in the manner prescribed by the EDGAR Filer Manual).

structured data language would allow tools to be developed so that users can sort and filter the available data according to specified parameters.

Reports on Form N-CR are currently required to be filed in HTML or ASCII.[263] We understand that, in order to prepare reports in HTML and ASCII, money market funds generally need to reformat required information from the way the information is stored for normal business uses. In this process, money market funds typically strip out incompatible metadata (*i.e.*, syntax that is not part of the HTML or ASCII specification) that their business systems use to ascribe meaning to the stored data items and to represent the relationships among different data items. The resulting code, when rendered in an end-user's web browser, is comprehensible to a human reader, but it is not suitable for automated validation or aggregation.

In recent years we have gained experience with different reporting data languages, including with reports in an XML-based structured data language. For example, we have used customized XML data languages for reports filed on Form N-CEN and Form N-MFP.[264] We have found the XML-based structured data languages used for those reports allow investors to aggregate and analyze reported data in a much less labor-intensive manner than data filed in ASCII or HTML. Based on our understanding of how funds currently disclose required information in a structured data language, we believe that requiring a Form N-CR-specific XML language would minimize reporting costs while

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263 *See* Regulation S-T, 17 CFR 232.101(a)(1)(iv); 17 CFR 232.301; EDGAR Filer Manual (Volume II) version 59 (September 2021), at 5-1 (requiring EDGAR filers generally to use ASCII or HTML for their document submissions, subject to certain exceptions).

264 *See e.g.,* Investment Company Reporting Modernization, Investment Company Act Release No. 32314 (Oct. 13, 2016) [81 FR 81870 (Nov. 18, 2016)] (adopting Form N-CEN); 2010 Adopting Release (adopting Form N-MFP).

yielding more useful data for investors and the Commission, as applicable. Money market funds would be able, at their option, either to submit XML reports directly or use a web-based reporting application developed by the Commission to generate the reports, as funds are able to do today when submitting holdings reports on Form N-CEN.

We recognize that Form N-CR filers could bear some additional reporting costs related to adjusting their systems to a different data language. However, many money market funds have acquired substantial experience with reporting on web-based applications (or directly submitting information in a structured data language). For example, money market funds currently file Form N-MFP on a monthly basis to report their portfolio holdings and other information to the Commission in a custom XML language. We believe that aligning Form N-CR's reporting data language with the type of data language of other required reports, including Form N-MFP, may reduce costs and introduce additional efficiencies for money market funds already accustomed to reporting using structured data and may reduce overall reporting costs in the longer term. Furthermore, even if there are increased costs, we believe that the benefits to investors and the Commission of making the information more usable would justify these costs.

We request comment on the reporting data language we are proposing to require for reports filed on Form N-CR, and, in particular, on the following:

109. Should we require, as we are proposing, Form N-CR reports to be filed in an N-CR-specific XML language? Is an N-CR-specific XML language the appropriate type of data language for Form N-CR reports? Why or why not? If another structured data language (*e.g.*, Inline

eXtensible Business Reporting Language), would be more appropriate, which one, and why?

110. Would this proposed requirement yield reported data that is more useful to investors, compared with not requiring Form N-CR to be filed in an N-CR-specific XML language, or requiring Form N-CR to be filed in a structured data language other than an N-CR-specific XML language?

111. Should any subset of funds be exempt from the proposed structured data reporting requirement? If so, what subset and why?

112. What implementation and long term costs, if any, would be associated with the proposed structured data reporting requirement?

c. Other Proposed Amendments

In addition to the proposed items related to liquidity threshold events and the proposed structured data language requirement, we are proposing a few other amendments to Form N-CR. To improve the identifying information for the registrant and series reporting an event on Form N-CR, we are proposing to require the registrant name, series name, and legal entity identifiers ("LEIs") for the registrant and series.[265] We also propose to add definitions of LEI, registrant, and series to the form for clarity, and the definitions of these terms would be the same as on Form N-MFP.[266] Further, we are proposing to remove the reporting events that relate to liquidity fees and redemption

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[265] *See* Items A.2, A.4, A.5, and A.7 of proposed Form N-CR. An LEI is a unique identifier generally associated with a single corporate entity and is intended to provide a uniform international standard for identifying counterparties to a transaction. Money market funds are already required to report LEIs for a registrant and series on Form N-CEN. *See* Items B.1 and C.1 of Form N-CEN.

[266] *See* proposed General Instruction F of Form N-CR.

gates, consistent with our proposal to remove the underlying provisions from rule 2a-7.[267] We also propose an amendment to Part C of Form N-CR, which relates to the provision of financial support to the fund. Specifically, when the support involves the purchase of a security from the fund, we propose to require the date the fund acquired the security, which would allow better identification of, and context for, support that occurs within a short period of time. For example, if the fund purchased the security a few days before the affiliate acquired it, this could suggest that the risk profile of the security deteriorated rapidly.

We request comment on the other proposed amendments to Form N-CR:

113. Should we require reporting of registrant name, series name, and LEIs for the registrant and series on Form N-CR, as proposed? Is there other identifying information we should require?

114. Should we make any changes to the definitions we propose to include in Form N-CR? Are there other terms we should define in the form?

115. For the Form N-CR item requiring reporting of financial support, should we require reporting of the date the fund acquired a security, as proposed, if the support involves the purchase of a security from the fund?

2. Amendments to Form N-MFP

Form N-MFP is the form that money market funds use to report their portfolio holdings and other key information each month.[268] We use the information on Form N-

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[267] *See* Parts F through G of current Form N-CR.

[268] *See* rule 30b1-7 under the Investment Company Act.

MFP to monitor money market funds and support our examination and regulatory programs. We are proposing amendments to improve our ability to monitor money market funds. The proposed amendments would provide certain new information about a fund's shareholders and disposition of non-maturing portfolio investments. We are also proposing changes to enhance the accuracy and consistency of information funds currently report, to increase the frequency of certain data points, and to improve identifying information for the reporting fund.

a. New Information Requirements

We are proposing to require additional information about the composition and concentration of money market fund shareholders. With respect to shareholder concentration, we are proposing that all money market funds disclose the name and percent of ownership of each person who owns of record or is known by the fund to own beneficially 5% or more of the shares outstanding in the relevant class.[269] Money market funds currently provide substantially the same information on an annual basis in their registration statements.[270] We believe more frequent information about shareholder concentration would be helpful for monitoring a fund's potential risk of redemptions by an individual or a small group of investors that could significantly affect the fund's liquidity. We recognize that as a result of omnibus accounts, there are circumstances in which multiple investors would be represented as a single shareholder of record for

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[269] *See* proposed Item B.10 of Form N-MFP. If the fund knows that two or more beneficial owners of the class are affiliated with each other, the fund would treat them as a single beneficial owner for purposes of the 5% ownership calculation and would report information about each affiliated beneficial owner. For these purposes, an affiliated beneficial owner would be one that directly or indirectly controls or is controlled by another beneficial owner or is under common control with another beneficial owner.

[270] *See* Item 18 of Form N-1A.

purposes of this disclosure.[271] The proposal would require information about beneficial owners known by the fund in recognition that funds may not have information about the amount each beneficial owner holds in an omnibus account. The proposed item would distinguish between record owners and beneficial owners to facilitate a more nuanced understanding of potential concentration levels. We are proposing to require funds to use a 5% ownership threshold for this reporting requirement to align with analysis funds already must conduct each year for purposes of updating their registration statements.[272]

We also propose to require a money market fund that is not a government money market fund or a retail money market fund to provide information about the composition of its shareholders by type.[273] The proposed item would require these funds to identify the percentage of investors within the following categories: non-financial corporation; pension plan; non-profit; state or municipal government entity (excluding governmental pension plans); registered investment company; private fund; depository institution and other banking institution; sovereign wealth fund; broker-dealer; insurance company; and other. This information would assist with monitoring the liquidity and redemption risks of institutional money market funds, as different types of investors may pose different redemption risks. We are not proposing to require this information of government money market funds because these funds have lower redemption and liquidity risks than other

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271 Omnibus accounts are accounts established by intermediaries that typically aggregate all customer activity and holdings in a money market fund, which can result in the fund not having information about individual beneficial owners who hold their shares through the omnibus account.

272 *See* Item 18 of Form N-1A.

273 *See* proposed Item B.11 of Form N-MFP.

money market funds. We are not proposing to apply this requirement to retail funds because these funds, by definition, are limited to retail investors.

In addition, we propose to add new Part D to Form N-MFP, which would require information about the amount of portfolio securities a prime money market fund sold or disposed of during the reporting period. This information would facilitate monitoring of prime money market funds' liquidity management, as well as their secondary market activities in normal and stress periods. It also would improve the availability of data about how selling activity by money market funds relates to broader trends in short-term funding markets. The proposal would require a prime fund to disclose the aggregate amount it sold or disposed of for each category of investment.[274] The categories of investments would mirror the categories funds already use on Form N-MFP for identifying their month-end holdings (*e.g.*, certificate of deposit, non-negotiable time deposit, financial or non-financial company commercial paper, or U.S. Treasury debt).[275] To focus the disclosure on secondary market activity, the proposal would exclude portfolio securities the fund held until maturity. We are proposing to require only prime funds to provide information about securities sold or disposed of because we believe that asset liquidation by this type of money market fund contributed to the market stress in March 2020 and during the 2008 financial crisis. In contrast, government funds generally receive inflows during periods of market stress and tend to provide liquidity to the market by investing incoming cash flow in the repurchase agreement market and purchasing securities. Tax-exempt funds are only a small segment of the money market fund industry

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274 *See* Item D.1 of proposed Form N-MFP.

275 *See* Item C.6 of current Form N-MFP.

and are less likely to generate significant liquidity concerns for the broader municipal market.

As described above in the proposed swing pricing requirement section, we also propose to amend Form N-MFP to require money market funds that are not government money market funds or retail money market funds to report the number of times the fund applied a swing factor over the course of the reporting period, and each swing factor applied. In that section, we requested comment on these swing pricing-related amendments to Form N-MFP.

We request comment on the new items we propose to add to Form N-MFP, including:

116. Should we require all money market funds to disclose information about shareholder concentration on Form N-MFP, as proposed? Should certain types of funds be excluded and, if so, why? Should the reporting threshold be ownership of at least 5% of a class's shares outstanding, as proposed? Should the threshold be lower or higher, such as 1%, 10%, or 15%? Instead of requiring information about shareholders who hold a certain amount of a class's outstanding shares, should we use a different method of obtaining information about shareholder concentration? For example, should we require funds to report the amount of net assets held by a specific number of the fund's largest investors, such as the one, five, or ten largest investors?

117. As proposed, should the shareholder concentration item require the name and percentage of ownership for each shareholder who owns of

record or beneficially 5% or more? Should we require different information for some or all types of investors? For example, should we not require name information for retail investors or other types of investors? As another alternative, should we require funds to report only the number of investors who own of record or beneficially 5% or more, distinguishing between record owners and beneficial owners? Additionally, should this information, as proposed, be reported on a non-confidential basis? Is there any sensitivity to identifying shareholder information such that it should only be reported to the Commission on a confidential basis?

118. Do funds currently gather information about shareholder concentration and composition on at least a monthly basis, or would the proposal require more frequent gathering of information than current practices? If more frequent information gathering would be required, what are the associated advantages and disadvantages of assessing shareholder concentration and composition more frequently? Should we require funds to report this information on Form N-MFP less frequently than proposed, such as annually, semiannually, or quarterly?

119. Should we require institutional prime and tax-exempt money market funds to provide information about the composition of their shareholders by type, as proposed? Are there any changes we should make to the types of shareholders the form would identify? Should certain shareholder categories be added or removed? Should we provide additional guidance or definition for any of the categories of shareholders?

Should we also require government money market funds to respond to this item? If so, why?

120. To what extent do money market funds know when an investor beneficially owns 5% or more of a class's outstanding shares when those shares are held through an omnibus account? To what extent do institutional money market funds know the composition of their shareholders by type? Are there any changes we should make to facilitate money market funds' abilities to collect this information, including for investors who invest through an omnibus account? For example, should we preclude a money market fund from selling its securities to a financial intermediary in nominee name on behalf of others unless the intermediary provides certain information about investors in the fund (such as size of holding, type of investor, or other investor characteristics)?

121. Should we require prime funds to disclose aggregate information about the amount of portfolio securities they sold or disposed of during the reporting period for each category of investment, as proposed? Should we instead require details about each instrument sold (*e.g.*, date of sale, price, and identifying information for each holding)? Should we instead consider requiring that prime funds report information about the amount of portfolio securities sold or disposed of on Form N-CR if the amount is above a specific threshold? If so, what amount of selling activity should trigger such reporting?

122. Should we require only some money market funds to disclose their selling activity, as proposed? Should we alternatively require all, or a broader subset of, money market funds to disclose this information?

123. Are there other types of information we should require money market funds to report on Form N-MFP to facilitate monitoring of these funds?

b. Changes to Improve the Accuracy and Consistency of Currently Reported Information

We are proposing several amendments to improve information about money market funds' portfolio securities. We are proposing to specify that, for purposes of reporting the fund's schedule of portfolio securities in Part C of Form N-MFP, filers must provide required information separately for the initial acquisition of a security and any subsequent acquisitions of the security (*i.e.*, for each lot).[276] Currently, some funds report information separately for each lot, while others do not. Requiring funds to report information separately for each lot would facilitate the Commission's ability to analyze other information we propose to require. Specifically, we are proposing an additional item that would require funds to provide the trade date on which the security was acquired and the yield of the security as of that trade date.[277] These proposed amendments, collectively, would assist the Commission in understanding how long a fund has held a given position and the maturity of the position when it was first acquired. This information is important to understand a money market fund's portfolio turnover

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[276] *See* introductory language to Part C of proposed Form N-MFP.

[277] *See* Item C.6 on proposed Form N-MFP. Because the proposed amendments separately request the yield at the time of acquisition, we are proposing to remove language in Item C.2 requiring filers to include the coupon, if applicable, in response to that item.

during normal market conditions and to monitor a potentially higher level of asset disposition during periods of market stress.

Form N-MFP requires filers to report particular information about funds' repurchase agreements. We are proposing to amend the form to require additional information about repurchase agreement transactions and to standardize how filers report certain information. Specifically, the amendments would require that filers identify (1) the name of the counterparty in a repurchase agreement; (2) whether a repurchase agreement is centrally cleared and the name of the central clearing counterparty, if applicable; (3) if a repurchase agreement was settled on a triparty platform; and (4) the CUSIP of the securities involved in the repurchase agreement. Currently, Form N-MFP simply asks for the name of the issuer. For repurchase agreements, filers sometimes report the name of the counterparty to the repurchase agreement, the name of the clearing house (in the case of centrally cleared repurchase agreements), or both in response to this item. In addition, the amendments would recognize changes that have occurred in the market for repurchase agreements since the form was last amended, such as the introduction of centrally cleared (or "sponsored") repurchase agreements. These proposed amendments would improve the Commission's monitoring of money market fund activity in various segments of the market for repurchase agreements, including potentially increased or decreased activity during periods of market stress, which may affect availability of funding for borrowers.

We are also proposing to include "cash" as a category of investment that most closely represents the collateral in repurchase agreements.[278] This amendment is designed to recognize that cash is sometimes used as collateral for repurchase agreements, and we expect that the addition would reduce inaccurate disclosure suggesting that a repurchase agreement is under-collateralized. Moreover, we are proposing to remove the ability for funds to aggregate certain required information if multiple securities of an issuer are subject to the repurchase agreement.[279] Removing this provision would provide more complete information about securities subject to a repurchase agreement.

Form N-MFP currently requires filers to indicate the category of money market fund.[280] These categories include "Treasury," "Government/Agency," and "Exempt Government," among others. We understand that these categories for government money market funds have contributed to confusion and inconsistent approaches to categorization. We are proposing to remove these three category designations and to replace them with one "Government" category.[281] To differentiate between Treasury

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278 *See* Item C.9.k of Form N-MFP (currently listing as categories of investments that most closely represents the collateral: asset-backed securities: agency collateralized mortgage obligations; agency debentures and agency strips; agency mortgage-backed securities; private label collateralized mortgage obligations; corporate debt securities; equities; money market; U.S. Treasuries (including strips); and other instruments).

279 *See* Item C.8 of Form N-MFP.

280 Item A.10 of Form N-MFP.

281 *See* proposed Item A.10 of Form N-MFP. We also propose to add definitions for "government money market fund" and "retail money market fund" in the form, which would be consistent with the definitions of these terms in rule 2a-7. Including these definitions in the form would clarify the meaning of references to these terms in this item and elsewhere in the form. *See* General Instruction E of proposed Form N-MFP. Because under this approach the definition of "retail money market fund" would be clear for purposes of the form, we also propose to amend Item A.10.a to use this defined term, rather than refer to exempt retail money market funds. *See* proposed Item A.10.a of Form N-MFP.

funds and other government funds, the proposal includes a new subsection that requires government money market funds to indicate whether they typically invest at least 80% of the value of their assets in U.S. Treasury obligations or repurchase agreements collateralized by U.S. Treasury obligations.[282] We believe that these amendments would provide more clarity for filers and supply the Commission with more accurate identification of different types of government money market funds.

We are proposing a new item in Form N-MFP that would require filers to indicate whether the fund is established as a cash management vehicle for affiliated funds and accounts.[283] This item would make it easier and more efficient to identify privately offered institutional money market funds. Our proposal also includes an amendment to enhance consistency of reporting of whether a fund seeks to maintain a stable price per share.[284] Currently, the form provides that if a fund seeks to maintain a stable price per share, it must state the price it seeks to maintain. However, if a fund does not respond to this item, it is unclear whether the fund did so in error or simply does not seek to maintain a stable price per share. The proposed amendment would require a fund to respond "yes" or "no" to whether it seeks to maintain a stable price per share so as to avoid any ambiguity.

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282 *See* proposed Item A.10.b of Form N-MFP. The 80% investment standard is based on 17 CFR 270.35d-1 (rule 35d-1 under the Investment Company Act), which requires a money market fund that includes "Treasury" in its name to adopt a policy to invest, under normal circumstances, at least 80% of its assets in the particular type of investment the fund's name suggests.

283 *See* proposed Item A.21 of Form N-MFP.

284 *See* proposed Item A.18 of Form N-MFP (proposing to require a fund to respond "yes" or "no" to whether it seeks to maintain a stable price per share).

Currently, funds are required to provide the name of any person who paid for or waived all or part of the fund's operating expenses or management fees during the reporting period and describe the amount and nature of the fee and expense waiver or reimbursement. These disclosures are difficult to use, as they are provided in a format that is not structured.[285] Moreover, the identification of the person who paid for or waived the fund's expenses or fees is not significantly beneficial to the Commission's monitoring and assessment of fund risks. While we continue to believe that shareholders should have access to this information, we believe that it is unnecessary to include in Form N-MFP since disclosure related to fees and expenses is available in funds' financial statements. Accordingly, we are proposing to require funds to report only the amount of any fee waiver or expense reimbursement during the reporting period.[286] This proposed change would make it easier for the Commission and investors to analyze efficiently the reported data.

For each portfolio security, a fund is required to indicate on Form N-MFP the category of instrument, using a list of categories designated in the form.[287] We are proposing to include a new category that distinguishes between U.S. Government agency notes that are coupon-paying and those that are no-coupon discount notes.[288] We believe that including this distinction would allow us to better understand whether an agency security should be categorized as a weekly liquid asset, as only agency discount notes with less than 60 days to maturity can be considered weekly liquid assets under the rule.

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285 Item B.8 of Form N-MFP.

286 *See* proposed Item B.9 of Form N-MFP.

287 Item C.6 of Form N-MFP.

288 *See* proposed amendments to Item C.7 of Form N-MFP.

We are also proposing a conforming change to the list of investment categories that a fund must use for purposes of disclosing information about its holdings on its website.[289]

We request comment on the proposed amendments to improve the accuracy and consistency of currently reported information on Form N-MFP, including the following:

124. Is the proposed requirement that funds provide required information separately for the initial acquisition of a security and any subsequent acquisitions of the security appropriate? Why or why not? Should we require funds to report the acquisition date and yield as of the acquisition date for each lot, as proposed? Are there better ways for us to assess how long a fund has held a position and its portfolio turnover? If so, how?

125. Should we, as proposed, require additional information about the counterparty to the repurchase agreement and information about whether a repurchase agreement is centrally cleared or a triparty agreement? Are there other ways we could acquire this information?

126. As proposed, should we require the CUSIP of the collateral subject to the repurchase agreement and add a category for cash collateral? As proposed, should we remove the provision that allows funds to aggregate information about multiple securities of an issuer that are subject to a repurchase agreement? To what extent do funds currently rely on this provision? What are the potential effects of our proposal to remove this

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[289] *See* proposed rule 2a-7(h)(10)(i)(B)(*2*).

provision? Is there any additional information related to repurchase agreement transactions that we should require?

127. Should Form N-MFP require registrants to provide Financial Instrument Global Identifier for securities, if available? Should Form N-MFP permit registrants to report the Financial Instrument Global Identifier in lieu of a CUSIP number on Form N-MFP? Why or why not?

128. Are our proposed amendments to consolidate how funds would identify different types of government money market funds effective? Is our proposed approach to identifying funds that should be classified as Treasury funds appropriate?

129. Is our proposed item to identify money market funds established as cash management vehicles for affiliates or other related entities sufficiently clear? Are there any changes we should make to that item? Is there a more effective way of identifying these funds? Would this question be more appropriate on a different form instead of Form N-MFP, for example, Form N-CEN?

130. Should we simplify disclosure of any fee waiver or expense reimbursement during the reporting period, as proposed? What scope of arrangements do funds currently report as fee waivers or expense reimbursements on Form N-MFP? For example, do they include offsets or credits (*e.g.*, custodian credits)? Do funds need additional clarity or guidance on the types of arrangements to report? Instead of our proposed approach, should we retain information about the person waiving the fee

or reimbursing the expense and a description of the fee waiver or expense reimbursement? For example, to better structure the item, should we require filers to identify the type of waiver or reimbursement on Form N-MFP (*e.g.*, management fees, 12b-1 fees)? Why or why not? Should we require filers to provide a reason for the waiver or reimbursement? For instance, should the item require that filers designate whether such actions were taken to maintain a particular expense ratio or a minimum level of yield? Why or why not?

131. As proposed, should we require funds to distinguish between U.S. Government agency notes that are coupon-paying and those that are no-coupon discount notes when categorizing their portfolio securities on Form N-MFP? Would this information be helpful for identifying securities that qualify as weekly liquid assets? Should we also require funds to distinguish between these two categories for purposes of disclosing portfolio securities on their websites, as proposed?

132. Are there other changes or additions that would improve the accuracy and consistency of the required reported information on Form N-MFP?

c. More Frequent Data Points

Under current rule 2a-7, a money market fund must prominently disclose on its website, as of the end of each business day during the preceding six months, the fund's percentage of total assets invested in daily liquid assets and in weekly liquid assets, as well as the fund's net asset value per share (including for each class of shares) and net

shareholder flow.[290] Currently, in monthly reports on Form N-MFP, a money market fund must provide the same general information for each Friday during the month reported.[291] Based on the Commission's experience with using current Form N-MFP data to analyze the events of March 2020 and other periods, we are proposing to amend Form N-MFP to require a money market fund to provide in its monthly report this liquidity, net asset value, and flow data for each business day of the month, rather than on a weekly basis.

We are proposing to require daily liquidity, net asset value, and flow data in monthly reports to allow Commission staff to better and more precisely monitor risks and trends in these areas in an efficient and more precise manner without requiring frequent visits to the websites of many different funds, and to provide industry-wide daily data in a central repository as a resource for investors and others.[292] The weekly data currently reported on Form N-MFP provides only a snapshot of the liquidity, net asset value, and flow data for any given month, and is therefore incomplete and less useful for purposes of analysis and monitoring than data for each business day in that month. In addition, most of the data on Form N-MFP is reported as of the end of the month, making it difficult to analyze the weekly data in a comprehensive manner. This is because the weekly data points generally relate to different days than the monthly data points. Although data

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290 17 CFR 270.2a-7(h)(10)(ii).

291 Items A.13, A.20, B.5, and B.6 of Form N-MFP.

292 To enhance consistency in reporting practices, we propose to specify that filers report gross subscriptions and gross redemptions as of the trade date (rather than as of the settlement date). This proposed change is intended to ensure that funds are reporting the information in the same manner. We also propose to clarify that filers that are master-feeder funds should report the required shareholder flow data at the feeder fund level only. *See* Item B.7 of proposed Form N-MFP. In addition, as discussed above, we are also proposing to amend the net asset value per share disclosures to require that an institutional prime or institutional tax-exempt fund should provide the net asset value per share as adjusted by a swing factor, if applicable. *See supra* Section II.B.4.

vendors provide some daily data based on information gathered from funds' websites, the staff has found this data could be incomplete at times, and therefore may not be appropriate for purposes of staff monitoring and analyses. As money market funds generally are already required to report on their websites the same data that we propose requiring be reported on Form N-MFP, we believe this change would impose minimal burden on money market funds. Consistent with the website information funds already provide, the reported daily data points would be calculated as of the end of each business day.

We are also proposing to increase the frequency with which funds report certain yield information. Currently, funds must report 7-day gross yields (at the series level) and 7-day net yields (at the share class level) as of the end of the reporting period. We propose to require funds to report this information each business day. We believe the higher-frequency reporting would assist in the timely monitoring and assessment of fund risks, particularly during periods of market stress.

We request comment on our proposal to require daily liquidity, net asset value, flow, and yield data in monthly Form N-MFP reports, including on the following:

133. Should we, as proposed, require liquidity, net asset value, and flow data to be reported as of the close of business on each business day of each month? Would funds incur significantly higher costs than under the current weekly data reporting requirement? Please describe the associated costs.

134. Would our new proposed requirements help us better identify certain risk characteristics that the form currently does not capture?

135. Are there other ways to monitor risks and trends in fund liquidity, valuation, and shareholder flow in a more efficient and precise manner without requiring frequent visits to the websites of many different funds?

136. When reporting required flow information on Form N-MFP, money market funds must include dividend reinvestments in the gross subscriptions figure.[293] After last amending Form N-MFP, the Commission adopted Form N-PORT, which requires other types of registered management investment companies to report shares sold in connection with reinvestments of dividends and distributions separately.[294] Should we similarly require money market funds to report dividend reinvestments and distributions separately? Would using an approach that is similar to Form N-PORT benefit fund complexes by allowing them to use consistent systems across different types of mutual funds for purposes of reporting flow information and allow the Commission and investors to better identify whether the fund is receiving new subscriptions? Or would such a change burden fund complexes and require systems changes, without significantly enhancing the current data because dividend reinvestments by money market fund investors are less substantial than for other fund types?

137. Should we, as proposed, require money market funds to report 7-day yield information each business day? What are the advantages and

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[293] *See* Item B.6 of current Form N-MFP.

[294] *See* Item B.6 of Form N-PORT.

disadvantages of requiring higher-frequency reporting of yield information? Should we instead require funds to report this information for each Friday of the month and for month-end, or on a different time cycle?

d. Other Amendments

Form N-MFP currently provides that a filer must disclose the registrant's LEI, if available, and does not require the LEI of the series.[295] Filers also provide the name of the registrant and series in metadata associated with the form, but filers do not report these names on the form itself. We are proposing to require funds to identify the name and LEI for both the fund registrant and the series.[296] Requiring reporting of registrant and series names on the form is meant to make the form easier for investors to use. The change to require LEIs for the registrant and series aligns Form N-MFP with Forms N-CEN and N-PORT, which require LEI reporting for the registrant and series.

Currently, funds must report the LEI that corresponds to a portfolio security, if the LEI is available. We propose to clarify that funds should respond to an item request with "N/A" if the information is not applicable (*e.g.*, a company does not have an LEI).[297] We also propose to amend the definition of LEI in the form to remove language providing that, in the case of a financial institution that does not have an assigned LEI, a fund should instead disclose the RSSD ID assigned by the National Information Center of the

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295 *See* Item 3 of current Form N-MFP

296 *See* Items 2, 4, 5, and 6 of proposed Form N-MFP. We also propose that funds disclose the full name of the class of series, as the current form only includes the EDGAR class identifier.

297 *See* General Instruction A of proposed Form N-MFP.

Board of Governors of the Federal Reserve System, if any.[298] Rather than classify an RSSD ID as an LEI under these circumstances, we propose to add RSSD ID as an additional category of "other identifiers" that a fund can use for relevant portfolio securities.[299] These changes are designed to improve consistency and comparability of information funds report about the securities they hold.

We request comment on our other proposed amendments to Form N-MFP, including the following:

138. Should we require funds to provide both the name and LEI for the registrant and the series and the full name of the class of the series, as proposed? Is there other identifying information about the registrant, series, or class that would be helpful?

139. As proposed, should we amend the definition of LEI in the form and provide a separate item for providing an RSSD ID as a securities identifier, as applicable?

140. Are there other definitions we should amend, include, or exclude from the form? Please explain.

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298 *See* General Instruction F of proposed Form N-MFP for a revised definition of LEI.

299 *See* Item C.5 of proposed Form N-MFP; General Instruction F of proposed Form N-MFP (adding a definition of RSSD ID). The revised definition of LEI would differ from the definitions of this term in Forms N-CEN, N-PORT, and PF, which allow an RSSD ID for a financial institution to be treated as an LEI if the institution has not been assigned an LEI. However, we do not believe that the different definitions of LEI among these forms would result in confusion or burdens. Form N-MFP would continue to allow a fund to report an RSSD ID for a financial institution when an LEI is not available, similar to the other forms, but it would make it easier to distinguish between the two types of identifiers.

G. Compliance Date

We propose to provide a transition period after the effective date of the amendments to give affected funds sufficient time to comply with the proposed changes and associated disclosure and reporting requirements, as described below. Based on our experience, we believe the proposed compliance dates would provide an appropriate amount of time for funds to comply with the proposed rule if adopted.

- *Twelve-Month Compliance Date*. We propose that 12 months after the effective date of the amendments, any money market fund that is not a government money market fund or a retail money market fund must comply with the proposed swing pricing requirement in rule 2a-7, if adopted, as well as the swing pricing disclosures applicable to these money market funds in the proposed amendments, if adopted, to Forms N-MFP and N-1A.[300] We also propose to provide 12 months after the effective date for government and retail funds to determine, should the rule be adopted, that financial intermediaries have the capacity to redeem and sell at a price based on the current net asset value per share pursuant to rule 22c-1 or prohibit the financial intermediary from purchasing in nominee name on behalf of other persons, securities issued by the fund.[301]
- *Six-Month Compliance Date.* The proposed compliance period for all other aspects of the proposal is six months after the effective date of the amendments, if adopted, and includes the following:

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300 *See* proposed rule 2a-7(c); proposed amendments to Items 4 and 6 of Form N-1A; proposed amendments to Item A.22 of Form N-MFP.

301 *See* proposed rule 2a-7(h)(ii).

- The proposed increased daily minimum asset and weekly minimum asset requirements; and
- The amendments to Forms N-CR and N-MFP, except the swing pricing-related disclosure on Form N-MFP.

- *Effective Date for Amendments Related to Liquidity Fees and Redemption Gates*. Removal of the liquidity fee and redemption gate provisions in rule 2a-7, as well as removal of associated disclosure requirements in Form N-1A and N-CR, would be effective, if adopted, when the final rule is effective.

We request comment on the proposed compliance dates, and specifically on the following items:

141. Are the proposed compliance dates appropriate? If not, why not? Is a longer or shorter period necessary to allow affected funds to comply with one or more of these particular amendments? If so, what would be a recommended compliance date?

142. Should removal of the fee and gate provisions be effective when the final rules become effective, as proposed? Alternatively, should these provisions not be effective until the compliance period ends for the increased liquidity requirements or the swing pricing requirement?

III. ECONOMIC ANALYSIS

A. Introduction

The Commission is mindful of the economic effects, including the costs and benefits, of the proposed amendments. Section 2(c) of the Act provides that when the Commission is engaging in rulemaking under the Act and is required to consider or

determine whether an action is consistent with the public interest, the Commission shall also consider whether the action will promote efficiency, competition, and capital formation, in addition to the protection of investors. The analysis below addresses the likely economic effects of the proposed amendments, including the anticipated and estimated benefits and costs of the amendments and their likely effects on efficiency, competition, and capital formation. The Commission also discusses the potential economic effects of certain alternatives to the approaches taken in this proposal.

Money market funds serve as intermediaries between investors seeking to allocate capital and issuers seeking to raise capital. Specifically, money market funds pool a diversified portfolio of short-term debt instruments (such as government and municipal debt, repurchase agreements, commercial paper, certificates of deposit, and other short-term debt instruments), and sell shares to end investors, who use money market funds to manage liquidity needs. Money market funds play an important role in investors' asset allocation and liquidity management; serve as a source of wholesale funding liquidity in the financial system; and rely on capital subject to daily and intraday redemptions to invest in short-term debt instruments.[302]

As discussed in detail in the sections that follow, the proposal seeks to address liquidity externalities in money market funds. Specifically, redeeming investors impose negative liquidity externalities on investors remaining in the fund ("fund dilution"), which may amplify a first mover advantage in redemptions. For example, when early redemptions force a money market fund to draw down on liquid assets, they reduce

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[302] *See* Section III.B.3 for an analysis of portfolio holdings of different types of money market funds.

overall fund liquidity available for future redemptions. The proposed removal of the tie between weekly liquid assets and redemption gates and the proposed elimination of redemption gates under rule 2a-7 are intended to reduce incentives of investors to redeem early to avoid losing liquidity during a potential gating period. The proposed increases in minimum liquidity requirements are designed to support funds' ability to meet redemptions from cash or securities convertible to cash even in market conditions in which money market funds cannot rely on a secondary or dealer market to provide liquidity, which may reduce transaction costs associated with redemptions and corresponding dilution borne by remaining investors. In addition, the proposed swing pricing requirement for institutional prime and institutional tax exempt money market funds is intended to require redeeming investors to absorb the liquidity costs they impose on the fund and thereby reduce unfairness to and the dilution of shareholders remaining in the fund.

By reducing liquidity externalities in money market funds, the proposal may dampen the risk of runs on money market funds. The possibility that funds may impose gates or fees after crossing a threshold may give rise to additional run risk. As discussed in Section I.B, in March 2020, when some money market funds approached the 30% weekly liquid asset threshold that would permit a fund to impose a gate or a fee, investors became more likely to redeem from those funds. Loss of access to liquidity by investors during the gating period can magnify the incentive to run before the gate is imposed.

The proposal may mitigate liquidity externalities and run risk in money market funds in three ways. First, the proposal would remove the tie between weekly liquid asset thresholds and the possibility that gates or fees will be imposed, which incentivized runs

on money market funds and altered portfolio management behavior of money market funds in 2020, based on available evidence. Second, increases in minimum liquidity requirements may improve the ability of funds to meet redemptions, reducing the risk of runs on funds with low liquidity. Third, the proposed swing pricing requirement may partly reduce run risk by reducing the first-mover advantage related to dilution costs.[303]

Money market fund managers' risk-taking incentives may lead them to hold liquidity levels that may be insufficient to meet redemptions in times of stress[304] for at least three reasons. First, some investors may seek to maximize returns,[305] assets with higher liquidity risks deliver higher returns,[306] and fund managers' compensation may be

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303 Factors other than dilution costs – such as falling asset prices and potential differences between a fund's net asset value and execution prices – may also contribute to runs. These and other considerations are discussed in greater detail in Section III.B.2 below.

304 A large finance literature examines the interplay between maturity transformation, systemic risk, and leverage. *See, e.g.,* Fahri, Emmanuel and Jean Tirole. 2012. "Collective Moral Hazard, Maturity Mismatch, and Systemic Bailouts". American Economic Review 102(1): 60-93. *See also* Acharya, Viral, and S Viswanathan. 2011. "Leverage, Moral Hazard, and Liquidity." Journal of Finance 66(1): 99-138. Other papers have examined the effects of government backstops on money market funds. *See, e.g.,* Strahan, Philip, and Basak Tanyeri. 2015. "Once Burned, Twice Shy: Money Market Fund Responses to a Systemic Liquidity Shock." Journal of Financial and Quantitative Analysis 50(1-2): 119-144. *See also* Kim, Hugh Hoikwang. 2020. "Information Spillover of Bailouts." Journal of Financial Intermediation 43.

305 In a somewhat parallel open end fund context, fund inflows are highly sensitive to fund yields, which can incentivize a reach for yield. *See, e.g.,* Choi, Jaewon, and Mathias Kronlund. 2018. "Reaching for Yield in Corporate Bond Mutual Funds." The Review of Financial Studies. 31(5): 1930-1965. *See also* Kacperczyk, Marcin, and Philipp Schnabl. 2013. "How Safe are Money Market Funds?" The Quarterly Journal of Economics, 138(3): 1073-1122. *See also* Fulkerson, Jon, Bradford Jordan, and Timothy Riley. 2013. "Return Chasing in Bond Funds." Journal of Fixed Income, 22(4): 90-103.

306 *See, e.g.,* Lee, Kuan-Hui. 2011. "The World Price of Liquidity Risk." Journal of Financial Economics 99(1): 136-161. *See also* Acharya, Viral, and Lasse Pedersen. 2005. "Asset Pricing with Liquidity Risk." Journal of Financial Economics, 77(2): 375-410. *See also* Pastor, Lubos, and Robert Stambaugh. 2003. "Liquidity Risk and Expected Stock Returns." Journal of Political Economy 111(3): 642-685.

related to fund size and performance.[307] Second, large scale redemptions akin to those experienced by some funds in March 2020 are rare, and estimating the risk of such rare and large scale redemptions is inherently difficult. Third, money market funds do not internalize liquidity externalities that money market fund liquidity management practices may impose on market participants transacting in the same asset classes. While the proposal would not fundamentally change these incentives of money market funds or fund managers, it would require funds to hold a greater share of highly liquid assets. This may reduce the ability of money market funds to invest in less liquid assets in order to reach for yield, reducing the probability that money market funds are unable to meet redemptions with liquid assets and have to sell less liquid holdings at a large haircut. Moreover, future times of stress may involve larger redemptions that would force money market funds to sell less liquid assets to meet redemptions. Thus, the proposal may lower the risk that money market funds do not have enough liquidity to meet redemptions and consequently relying on government backstops or sponsor support.

Many of the benefits and costs discussed below are difficult to quantify. For example, we lack data to quantify the number of funds that had to sell less liquid holdings during March 2020; how funds may adjust the liquidity of their portfolios in response to the proposed liquidity thresholds; the extent to which investors may reduce their holdings in money market funds as a result of the proposed swing pricing requirement; the extent to which investors may move capital from institutional prime to government money market funds; and the reductions in dilution costs to investors as a result of the proposed

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307 *See, e.g.,* Ma, Linlin, Yuehua Tang, and Juan-Pedro Gomez. 2019. "Portfolio Manager Compensation in the U.S. Mutual Fund Industry." Journal of Finance 74(2): 587-638.

amendments (which will depend on investor redemption activity and the liquidity risk of underlying fund assets). Form N-MFP data is not sufficiently granular to allow such quantification and many of these effects will depend on how affected funds and investors may react to the proposed amendments. While we have attempted to quantify economic effects where possible, much of the discussion of economic effects is qualitative in nature. We seek comment on all aspects of the economic analysis, especially any data or information that would enable a quantification of the proposal's economic effects.

B. Economic Baseline

1. Affected Entities

a. Money Market Funds

The proposed amendments would directly affect money market funds registered with the Commission. From Form N-MFP data, there are a total of 318 funds with approximately $5 trillion in total net assets that may be affected by various aspects of the proposal. Table 3 and Table 4 below estimate the number and total net assets of funds by fund type as of the end of July 2021. Prime money market funds account for approximately 17% of the total net assets in the industry, whereas municipal money market funds account for approximately 2%.

Table 3: Number of Money Market Funds by Fund Type, as of July 2021.

Category	Fund Type	Count	Share
Prime	Institutional Public	32	10%
	Institutional Nonpublic	9	3%
	Retail	23	7%
Tax Exempt	Institutional	12	4%
	Retail	53	17%
Government & Treasury	Government	139	44%
	Treasury	50	16%
Total	Total	318	100%

Table 4: Money Market Fund Net Assets by Fund Type ($ Billions), as of July 2021.

Category	Fund Type	Net Assets	Share
Prime	Institutional Public	315.8	6%
	Institutional Nonpublic	337.5	7%
	Retail	222.0	4%
Tax Exempt	Institutional	19.8	0%
	Retail	80.7	2%
Government & Treasury	Government	2,787.1	56%
	Treasury	1,222.7	25%
Total	Total	4,985.6	100%

As discussed above, the swing pricing proposal may disproportionately affect funds that strike their NAV at the midpoint price, rather than at the bid price of the securities. One commenter indicated that it and many other U.S. fund complexes value the securities held in money market and bond funds for purposes of computing fund NAVs at the bid price.[308] We lack data to quantify how many institutional prime and institutional tax-exempt funds currently strike their NAV at the midpoint and, to the best of our knowledge, no such data is publicly available. We solicit comment and any data that would enable such quantification.

b. Other Affected Entities

As discussed above, the proposed swing pricing requirement would indirectly affect a large group of intermediaries. Specifically, swing pricing would require certain money market funds to receive more timely flow information before they can strike the NAV and settle trades. As discussed in greater detail below, this may affect all market participants sending orders to relevant money market funds, including broker-dealers,

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308 *See* Fidelity Comment Letter to the Financial Stability Board, *available at* https://www.fsb.org/wp-content/uploads/Fidelity.pdf.

registered investment advisers, retirement plan recordkeepers and administrators, banks, other registered investment companies, and transfer agents that receive flows directly.

In addition, the proposed requirement that stable NAV money market funds determine that intermediaries submitting orders to purchase or redeem the fund's shares have the ability to process transactions at non-stable prices would also affect intermediaries sending flows to these money market funds. As discussed in section II.D, rule 2a-7 already imposes the obligation on money market funds and their transfer agents to have the capacity to redeem and sell securities at prices that do not correspond to a stable price per share.

2. Certain Economic Features of Money Market Funds

Several features of money market funds can create an incentive for their shareholders to redeem shares heavily in periods of market stress. We discuss these factors below, as well as the adverse impacts that can result from such heavy redemptions in money market funds.

a. Money Market Fund Investors

As discussed elsewhere,[309] investors in money market funds have varying investment goals and tolerances for risk. Many investors use money market funds for principal preservation and as a cash management tool. Such investors may be loss averse for many reasons, including general risk tolerance, legal or investment policy restrictions, or short-term cash needs. These overarching considerations may create incentives for money market fund investors to redeem – incentives that may persist regardless of market

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[309] *See, e.g.,* 2014 Adopting Release, *supra* footnote 12, at 47740.

conditions and even if the other dilution related incentives discussed below are addressed by the proposal.

The desire to avoid loss may cause investors to redeem from certain money market funds in times of stress. For example, as discussed elsewhere, heavy redemptions from prime money market funds and subscriptions in government money market funds during the 2008 financial crisis pointed to a flight to quality, given that most of the assets held by government money market funds have a lower default risk than the assets of prime money market funds.[310] As discussed above, during peak market stress in March 2020, investor redemptions may have been driven by liquidity considerations, among other things.

In addition, as long as investors consider their money market investments as relatively liquid and low risk, the possibility that a fund may impose gates or fees when a fund's weekly liquid assets fall below 30% under rule 2a-7 may contribute to the risk of triggering runs, particularly from institutional investors that commonly monitor their funds' weekly liquid asset levels.[311] As discussed above, some research suggests that, during peak market volatility in March 2020, institutional prime money market fund outflows accelerated as funds' weekly liquid assets went closer to the 30% threshold.[312] In order to avoid approaching or breaching the 30% weekly liquid asset threshold for the

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310 *See id*.

311 *See, e.g.*, Comment Letter of the Systemic Risk Council (Apr. 12, 2021) ("Systemic Risk Council Comment Letter"); SIFMA AMG Comment Letter; Fidelity Comment Letter.

312 *See, e.g.,* Li *et al.*, *supra* footnote 31. *See also* ICI MMF Report, *supra* footnote 45.

possible imposition of redemption gates, money market fund managers may also choose to sell less liquid portfolio securities during times of stress.[313]

b. Liquidity Externalities and Dilution Costs

Money market fund investors can incur dilution costs. Specifically, the value of shares held by investors staying in the fund may be diluted if other fund investors transact at a NAV that does not fully reflect the ex post realized costs of the fund's trading induced by fund flows. Shareholders in floating NAV and stable NAV funds may bear dilution costs in different forms. In floating NAV funds, dilution is reflected in the fund's NAV, which directly affects the yields of shareholders remaining in the fund. In stable NAV funds, dilution costs can accrue until the fund's shadow price declines below $0.995, which may result in the fund breaking the buck and re-pricing its shares below $1.00. Fund sponsors can also choose to absorb some or all of the dilution costs for reputational reasons, but are not obligated to do so.

Several factors can contribute to the dilution of investors' interests in money market funds. First, trading costs can lead to dilution. To effect net redemptions or subscriptions, a fund incurs trading costs. If these costs are realized prior to NAV strike, they are distributed across both transacting and non-transacting investors. However, if these costs are realized after NAV strike, they are borne solely by non-transacting shareholders that remain in the fund. For low levels of net redemptions or subscriptions, the difference between the two scenarios for non-transacting shareholders is low;

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313 Some commenters indicated that, on aggregate, prime money market funds pulled back little from commercial paper markets as they were largely unable to resell commercial paper and CDs to issuing banks and such securities lack a liquid secondary market. *See, e.g.,* ICI MMF Report, *supra* footnote 45.

however, for large net redemptions, the difference in dilution costs borne by non-transacting shareholders can be stark.

Using a stylized example, Figure 2 compares the dilution attributed to trading costs that occurs when a fund trades to meet redemptions after NAV is struck (as is currently the case in the U.S.) with the dilution attributed to trading costs that occurs if a fund is able to trade to accommodate investor redemptions/subscriptions prior to the NAV strike (dotted straight line). This stylized example assumes that a fund holds a single asset whose value is constant, but liquidating the asset incurs a spread/haircut of 10%. Importantly, the haircut assumption in this stylized example is used purely for illustrative purposes; haircuts on assets in money market funds tend to be much smaller. However, this example demonstrates that larger redemptions can contribute nonlinearly to higher dilution for remaining shareholders when a fund trades after the NAV is struck compared to a scenario in which the fund trades before the NAV is struck.[314]

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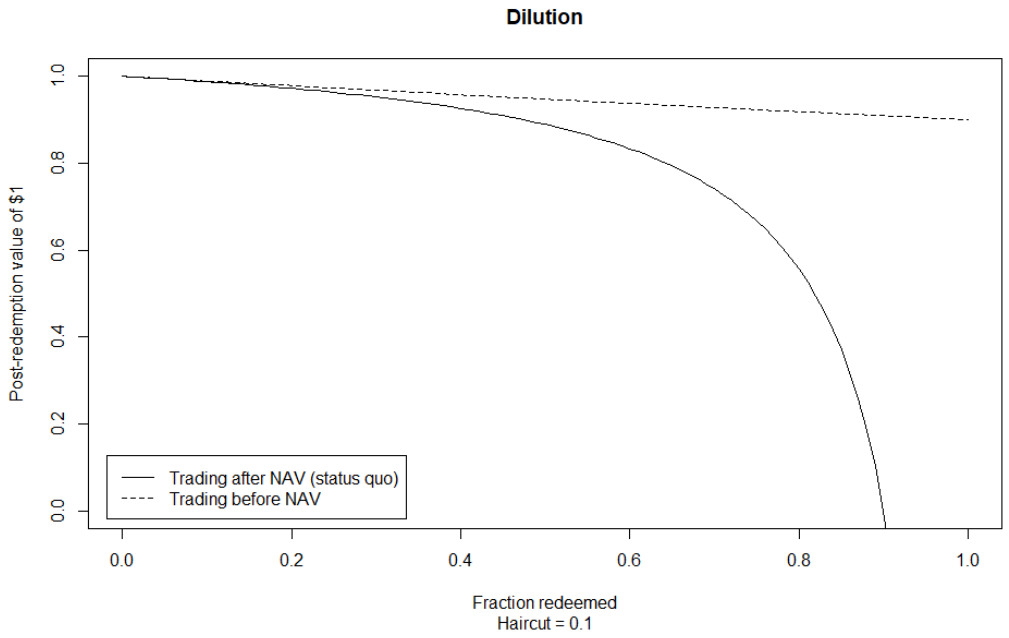
[314] To the degree that some funds may determine their NAV using holdings as of the prior trading day, such practices may also exacerbate dilution. In Figure 2, if funds strike their NAV using current trading day holdings, the dotted line would not be decreasing.

Figure 2: Dilution Effects of Different Trading Timelines over 1 Day.



Second, stale prices could contribute to dilution, especially during times of market stress. Some assets that money market funds hold may become illiquid and stop trading during times of market stress. In such events, the only available prices for these assets are prices realized during pre-stress market conditions, *i.e.*, stale prices. If a floating NAV fund's NAV on a given date is based on stale prices, net redemptions at that NAV can dilute non-transacting fund shareholders when assets are eventually sold at prices that reflect their true value. Since funds with a stable NAV have a fixed share price at $1, stale prices only affect the shadow price per share and the probability that a fund breaks the buck and potentially leads to sponsor support. The stale pricing phenomenon has been documented in fixed income funds[315] and not specifically in money market funds. However, money market funds hold significant amounts of commercial paper, certificates

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315 *See, e.g.,* Choi, Jaewon, Mathias Kronlund, and Ji Yeol Oh. 2021. "Sitting Bucks: Stale Pricing in Fixed Income Funds." Journal of Financial Economics, forthcoming.

of deposit, and other assets that do not have an active and robust secondary market, making them similarly opaque and difficult to accurately price, especially during times of market stress.

Knowing that these and other factors[316] may contribute to dilution, money market fund investors may have an incentive to redeem quickly in times of stress to avoid realizing potential dilution, an effect exacerbated if they believe other investors will redeem.[317] Some research in a parallel open end fund setting suggests that liquidity externalities may create a "first-mover advantage" that may lead to cascading anticipatory redemptions akin to traditional bank runs.[318] There is a dearth of academic research about the degree to which dilution costs alone may trigger money market fund

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316 For example, market risk may contribute to dilution costs. If a fund redeems investors at a given NAV, but must raise funds to meet those redemptions on a subsequent trading day during which the value of the fund's holdings declines significantly, non-transacting shareholders will be diluted. Conversely, non-transacting money market fund investors can benefit if assets are sold at a price higher than NAV. While the value of the fund's holdings can go both up and down, such market risk amplifies the risk fund shareholders would otherwise experience. However, since true market prices may be very difficult to forecast, the degree to which such dilution contributes to the first mover advantage is unclear.

317 Similar effects have been shown to create run dynamics in banking contexts. *See, e.g.,* Diamond, Douglas and Philip Dybvig. 1983. "Bank Runs, Deposit Insurance, and Liquidity." Journal of Political Economy 91(3): 401-419.

318 This research generally models an exogenous response to negative fund returns and not trading costs. However, these results may extend to trading costs to the degree that cost based dilution may reduce subsequent fund returns, which would trigger runs in these models. *See e.g.,* Chen, Qi, Itay Goldstein, and Wei Jiang. 2010. "Payoff Complementarities and Financial Fragility: Evidence from Mutual Fund Outflows." Journal of Financial Economics 97(2): 239-262. *See also* Goldstein, Itay, Hao Jiang, and David Ng. 2017. "Investor Flows and Fragility in Corporate Bond Funds." Journal of Financial Economics 126(3):592-613. *See also* Morris, Stephen, Ilhyock Shim, and Hyun Song Shin. 2017. "Redemption Risk and Cash Hoarding by Asset Managers." Journal of Monetary Economics 89: 71-87. *See also* Zeng, Yao. 2017. "A Dynamic Theory of Mutual Fund Runs and Liquidity Management." Working Paper. *See also* Ma, Yiming, Kairong Xiao, and Yao Zeng. 2021. "Mutual Fund Liquidity Transformation and Reverse Flight to Liquidity." Working Paper. *See also* Ma, Yiming, Kairong Xiao, and Yao Zeng. 2021. "Bank Debt versus Mutual Fund Equity in Liquidity Provision." Working Paper.

runs. In addition, theoretical models of such first-mover advantage typically rely on some exogenous mechanism to generate initial redemptions from funds.[319] While stale NAV and trading costs can create incentives for early redemptions, redemptions may also occur for reasons that are not strategic, such as a desire to rebalance portfolios under stressed market conditions.

Regardless of the reason for a fund experiencing net redemptions on any given day, such redemptions impose a cost on investors remaining in the fund in the absence of measures to take trading costs into account. In addition, since money market funds can trade portfolio holdings to meet redemptions or subscriptions, money market fund liquidity management can both dampen and magnify disruptions in underlying securities markets.

3. Money Market Fund Activities and Price Volatility

a. Portfolio Composition and Interplay with Short-Term Funding Markets

As described in the introduction, portfolio composition of money market funds is determined by fund type. Figure 3 and Figure 4 show portfolio holdings of prime and tax-exempt money market funds since 2016.[320] Prime money market funds mostly hold certificates of deposit and time deposits, which average 33% of their portfolio holdings. The second largest category is financial commercial paper, which averages 18% of fund

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319 For example, one model assumes that investors redeem from funds following poor performance. *See* Chen, Qi, Itay Goldstein, and Wei Jiang. 2010. "Payoff Complementarities and Financial Fragility: Evidence from Mutual Fund Outflows." Journal of Financial Economics 97(2): 239-262.

320 The 2014 money market fund reforms were implemented in 2016. For the purposes of this economic analysis, the Commission's baseline reflects rules currently in effect as well as how money market fund practices and portfolios evolved in the aftermath of the 2014 final rule.

portfolio holdings. These categories of holdings decreased as portfolio shares after March 2020 as prime money market funds increased their Treasury holdings. Tax-exempt money market funds mostly hold variable rate demand notes, which average 50% with a slight downward trend over time. The second largest category is tender options bonds, which average 23%, with a slight upward trend over time. Figure 5 shows differences in portfolio holdings of commercial paper of retail and institutional prime money market funds: generally retail money market funds have somewhat higher holdings of commercial paper compared to institutional funds. For instance, retail prime money market funds held on average 21% of financial commercial paper compared to 17% for institutional prime money market funds.

Figure 3: Portfolio Holdings of Prime Money Market Funds[321]

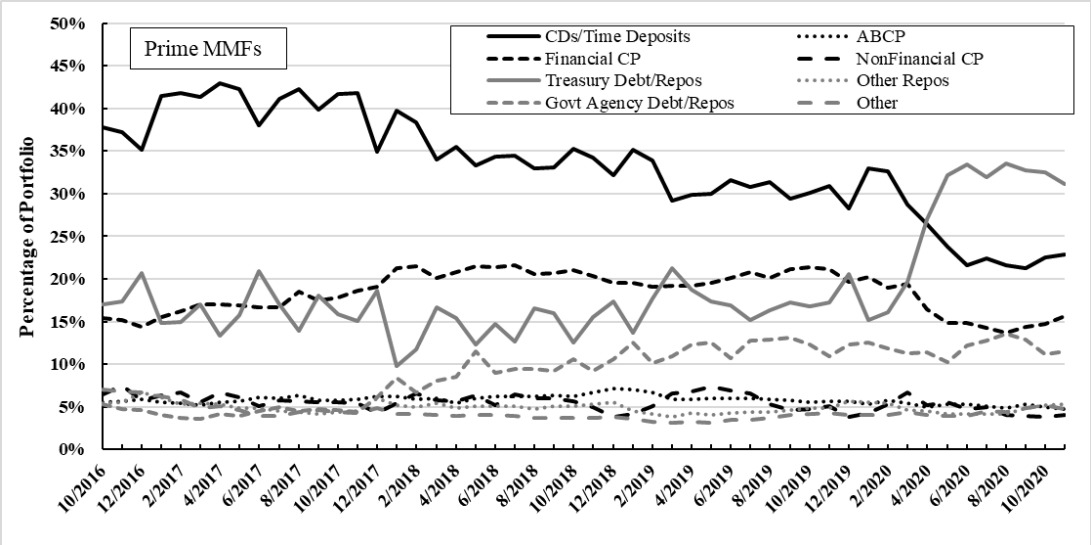

Figure 4: Portfolio Holdings of Tax-Exempt Money Market Funds

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321 The numbers on the x axis are months and years. CDs/Time Deposits are certificates of deposit or time deposits. Financial CP is commercial paper of issuers in the financial industry. Treasury Debt / Repos are U.S. Treasury obligations or repurchase agreements collateralized by U.S. Treasury securities. Government Agency Debt / Repos are debt securities of Federal agencies and instrumentalities, as well as repurchase agreements collateralized by government agency securities. ABCP is asset-backed commercial paper. Non/Financial CP is commercial paper of issuers not in the financial industry. In a repurchase agreement, one party sells an asset, usually a Treasury security or other fixed income security, to another party with an agreement to repurchase the asset at a later date at a slightly higher price. Repo contracts are a common form of short-term financing. In a repo, the party selling the security is similar to the lender in a securities lending agreement; the party purchasing the security is similar to a borrower in cash collateralized securities lending. In both cases, the transaction is facilitated by cash transfers from the purchaser (borrower) to the seller (lender). In a securities loan, the cash is in the form of collateral while in a repo transaction the cash is payment for the security. In both cases, the purchaser or borrower becomes the legal owner of the security. To unwind the repurchase agreement or securities loan, cash transfers back to the purchaser in terms of the repurchase cost for a repo or in the form of returned collateral in a securities loan. Repos and securities loans differ in that repos typically are primarily used for short-term financing while securities loans typically are used to gain access to the security itself. Also loans generally allow the lender to recall the security on demand while repos do not. Additionally, the cash received by the seller of a repo is often not re-invested but is used to finance the operations of a company whereas the cash received in a securities loan is generally re-invested in low risk fixed income securities for the life of the loan. *See, e.g.,* Gorton, Gary and Andrew Metrick. 2012. "Securitized Banking and the Run on Repo," Journal of Financial Economics 104.

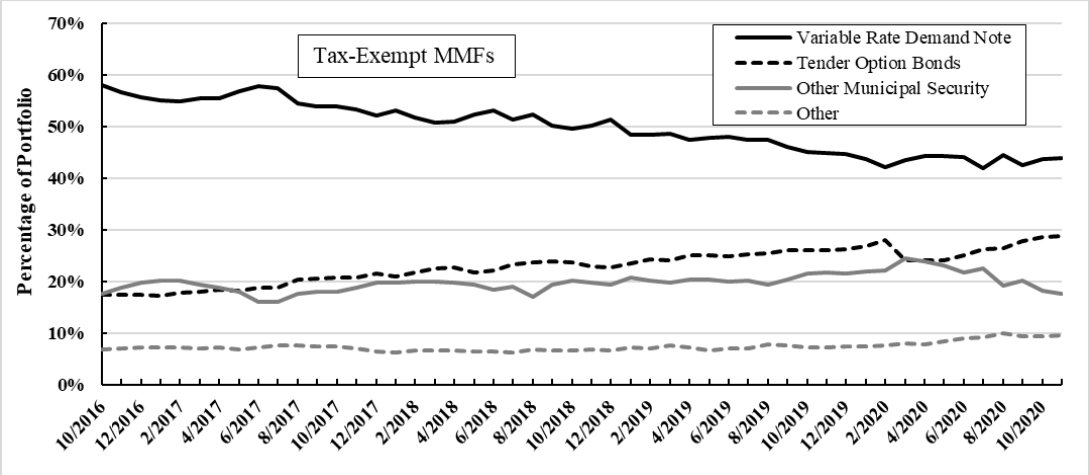
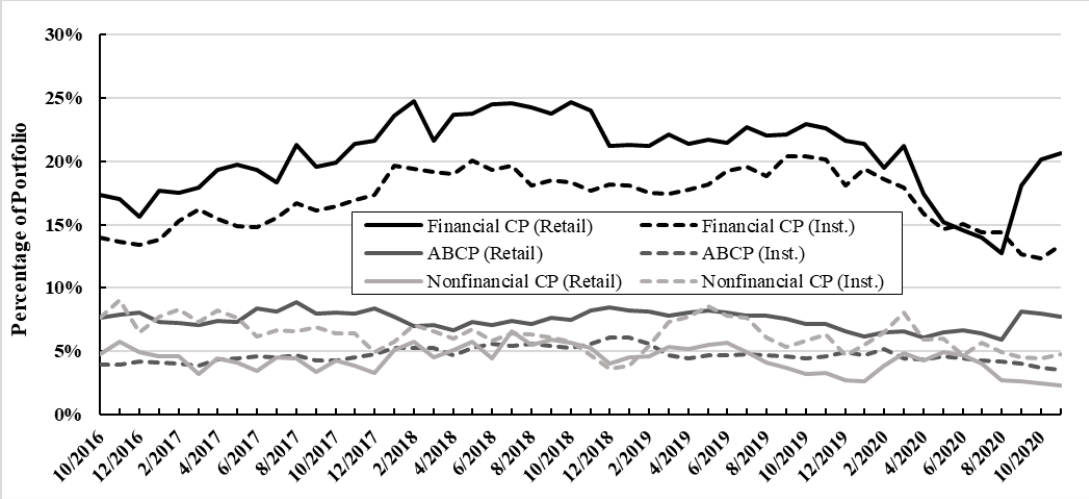


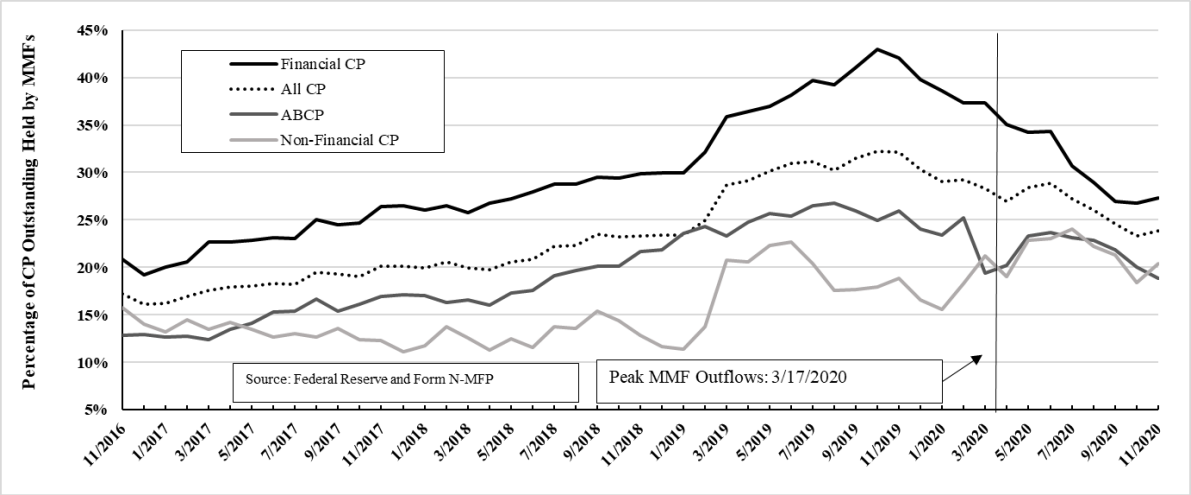
Figure 5: Commercial Paper Holdings of Retail and Institutional Prime Funds



While money market funds are only one type of participant among many in short-term funding markets, money market fund activity may influence short-term funding markets. A wave of redemptions can force money market funds to liquidate portfolio holdings at reduced prices, if they have insufficient cash on hand from maturing daily and weekly liquid assets or cash from subscriptions, which can contribute to stress in underlying short-term funding markets. As a result, money market fund liquidity has the potential to impact underlying securities issuers' ability to raise capital in short-term

markets during stress periods. Figure 6 shows trends in holdings of commercial paper by money market funds.

Figure 6: Trends in Money Market Fund Holdings of Commercial Paper



b. NAV and Price Volatility

After the 2014 rule 2a-7 amendments, only one money market fund had its market NAV drop below $.9975 in 2020;[322] however, in a few instances, fund sponsors provided financial support by purchasing securities from affiliated institutional prime money market funds to prevent these funds from dropping below the 30% weekly liquid asset threshold.[323]

To reduce volatility in their market NAVs, money market funds invest in short-term, high-credit-quality, well diversified debt securities pursuant to rule 2a-7. Although

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322 All money market funds have a market NAV, which is a four digit price that is calculated using available market prices and/or fair value market pricing models of the portfolio securities. In contrast, retail and government money market funds also have a stable NAV, which is a two digit price usually set at $1.00 that does not fluctuate and is calculated using amortized cost accounting.

323 *See, e.g.*, ICI Comment Letter I; Wells Fargo Comment Letter.

the limits on maturity and credit risk of money market fund holdings under rule 2a-7 reduce risks a money market fund may face, they do not eliminate those risks. Risks that remain may cause the fund's market NAV to deviate from $1. Changes in interest rates or a security's credit rating, for example, could put temporary downward pressure on an asset's price before it matures at par. In addition, if any securities were sold or matured for less than the amortized cost, then any deviation between the fund's market price and $1 would become permanent. Finally, an issuer may default on payments of principal or interest, generating losses for funds holding the issuer's securities. If the loss is large enough, a stable NAV fund could break the buck while a floating NAV fund could see a decline in its share price.

We have examined the distribution of market NAVs before and after the compliance date of the 2014 amendments (October 2016).[324] Figure 7 quantifies the trends in the distribution of money market fund market NAVs before and after the 2014 rule amendments went into effect and in the run up to the 2020 market stress. The distribution of money market fund market NAVs, as a whole, changed little over time. However, as can be seen from Figure 8 and Figure 9, the distribution of prime money market fund's market NAVs tightened around the compliance date with the 2014 amendments.

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[324] This analysis relies on Form N-MFP submissions between November 2010 and November 2020 for all money market funds. From these filings, portfolio holdings and fund characteristics, including fund NAV prices from Item B.5, are extracted for each fund. Item B.5 requires filers to report the net asset value per share as of the close of business on each Friday of the month. To avoid duplication, master funds are removed from the sample: although feeder funds generally have the same characteristics as their master fund, feeder funds have different investor redemption patterns, which can affect the fund's market price. As a result, Form N-MFP filers generally provide market prices for the feeder funds and leave the market prices for master funds blank or zero.

Figure 7: Distribution of All Money Market Fund Market NAVs from November 2010 to February 2020.

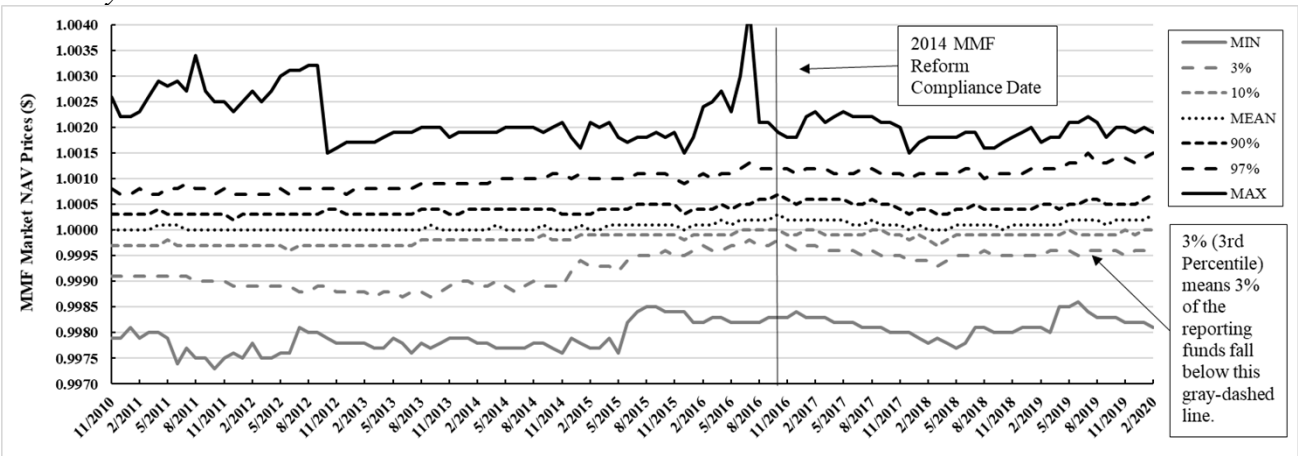


Figure 8: Distribution of Prime Money Market Fund Market NAVs from November 2010 to February 2020.

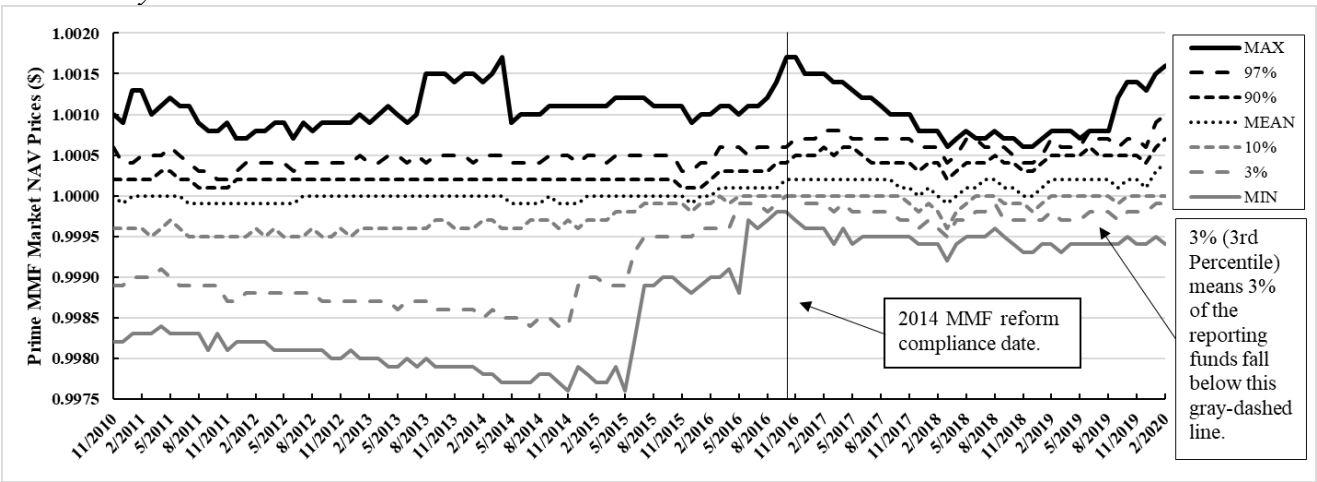
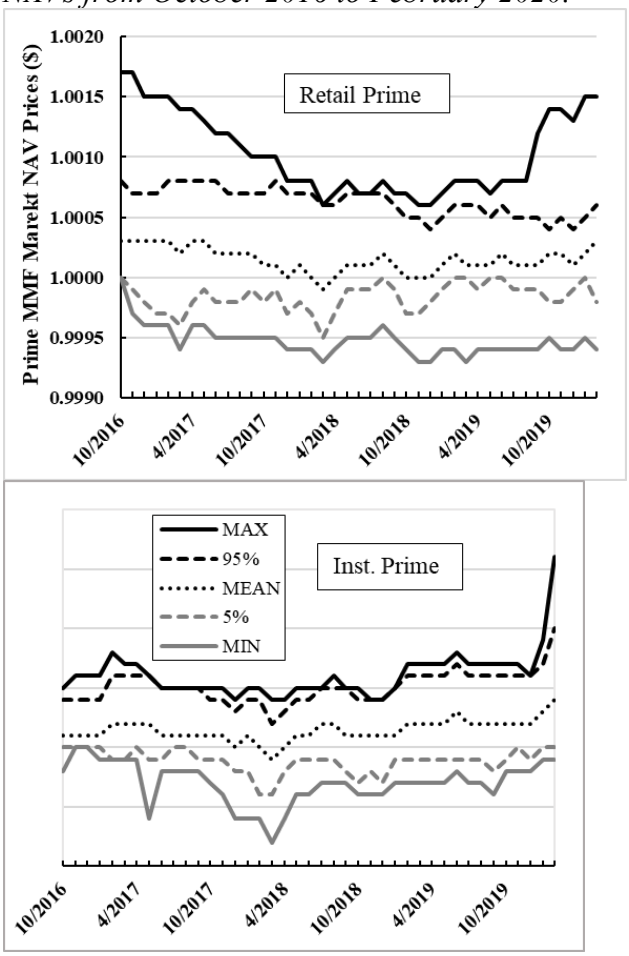


Figure 9: Distribution of Retail and Institutional Prime Money Market Fund Market NAVs from October 2016 to February 2020.



The dispersion of market NAVs across all retail prime money market funds each month in Figure 9 is larger than the dispersion of market NAVs of their institutional counterparts.[325] This result is consistent with the possibility that, following the 2014 amendments, advisers to institutional prime and institutional municipal funds were under increased pressure to keep their weekly liquid assets high and their floating NAV near

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[325] For example, between October 2016 and February 2020 the mean market NAV was $1.0001 with
a standard deviation of $0.0003 for retail prime funds and for institutional prime funds the mean market NAV was $1.0001 with a standard deviation of $0.0002.

$1.0000, possibly because sophisticated institutional investors are more likely to track the standard deviations and redeem shares in a crisis.[326] In other words, the baseline daily disclosure of the market prices may allow institutional investors to monitor NAV fluctuations, and may influence the liquidity risk management of money market funds.

Figure 10 and Figure 11 show the distribution of weekly retail and institutional prime money market fund market NAVs during the COVID-19 pandemic, respectively. On average, retail prime money market fund market NAVs dropped from $1.0002 to $0.9994 or 8 bps as a result of the market dislocation. Similarly, the average institutional prime money market fund market NAV dropped from $1.0003 to $0.9994 or 9 bps as a result of the market dislocation. The lowest market NAV for retail prime dropped from $0.9994 to $0.9980 or 14 bps. In contrast, institutional prime money market fund lowest market NAV dropped from $0.9999 to $0.9976 or 23 bps. No prime money market fund market NAV dropped below $0.9975. To the degree that the only available prices for some affected money market fund holdings during March 2020 stress may have been realized during pre-stress market conditions, these NAV fluctuations may underestimate the degree of asset volatility in these funds.

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326 *See, e.g.*, Response to Questions Posed by Commissioners Aguilar, Paredes, and Gallagher, Page 10, *available at* http://www.sec.gov/news/studies/2012/money-market-funds-memo-2012.pdf.

Figure 10: Distribution of Weekly Retail Prime Money Market Fund Market NAVs During COVID-19

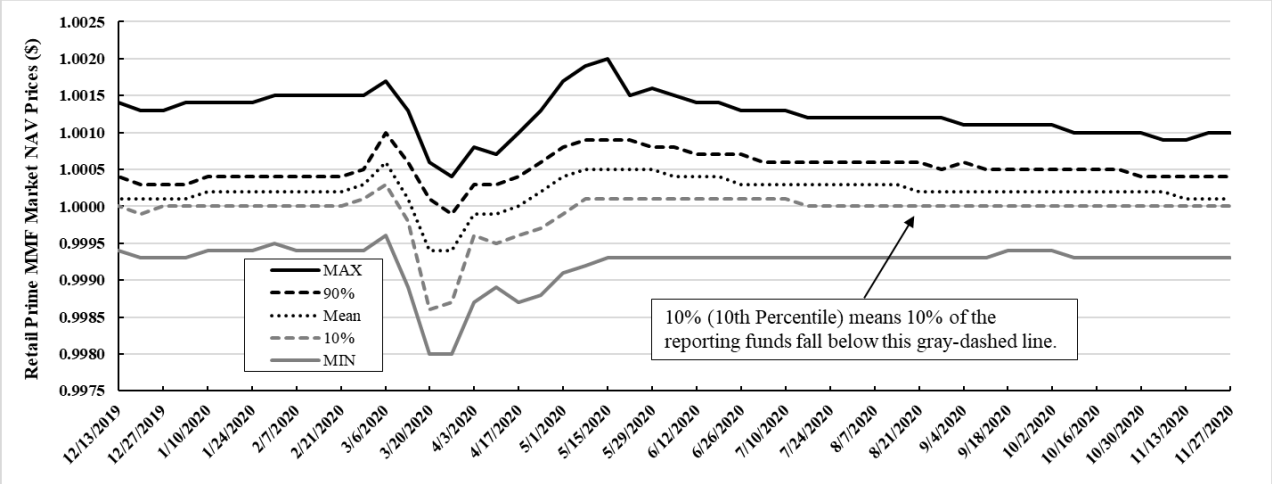
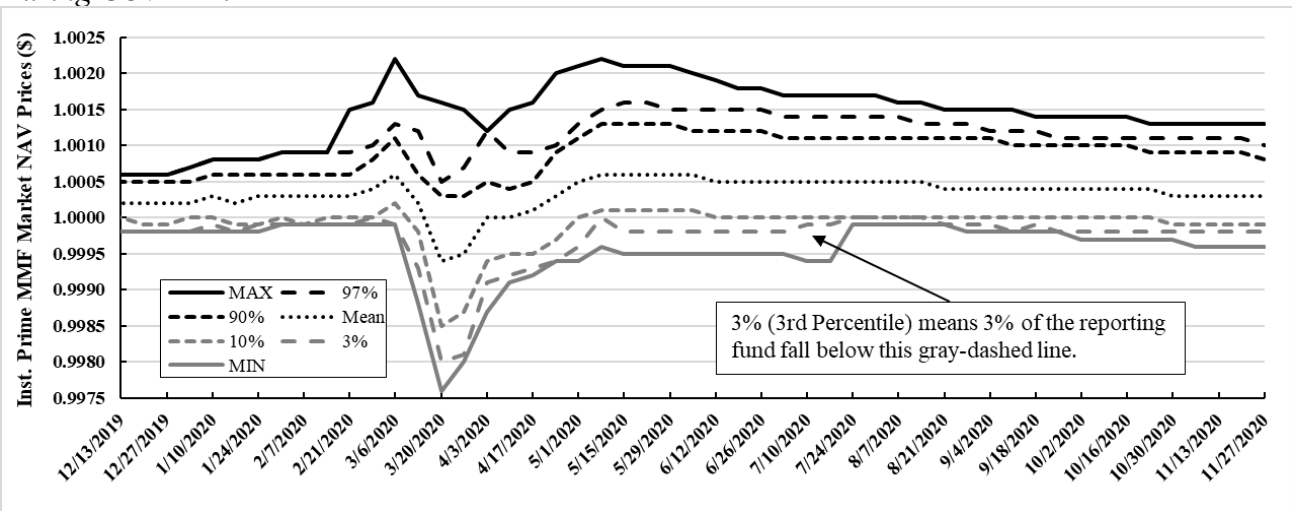
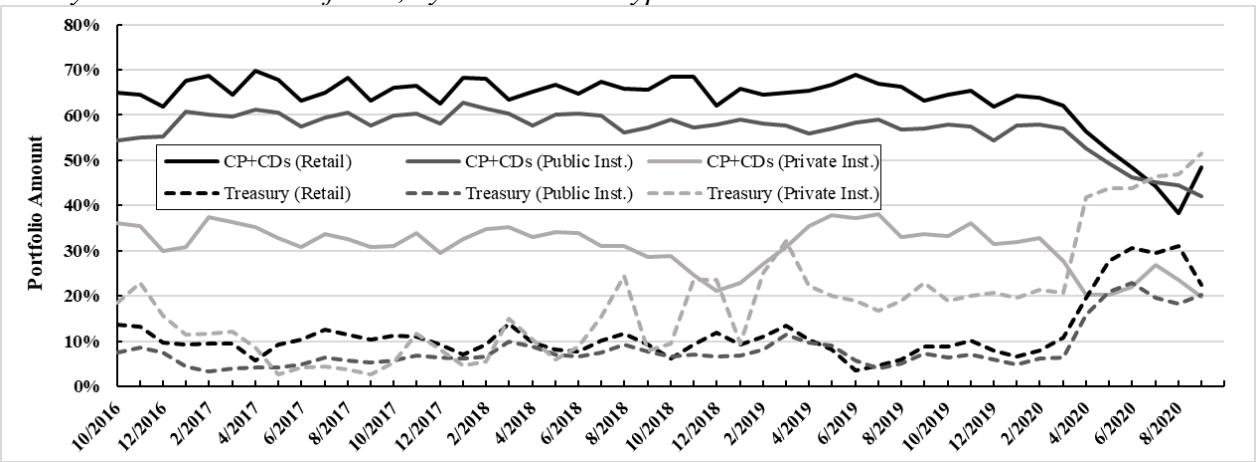


Figure 11: Distribution of Weekly Institutional Prime Money Market Fund Market NAVs During COVID-19



Holdings of retail and institutional money market funds may contribute to NAV volatility of these funds. Figure 12 shows differences in the holdings of Treasuries, commercial paper, and certificates of deposit of retail prime and institutional prime money market funds.

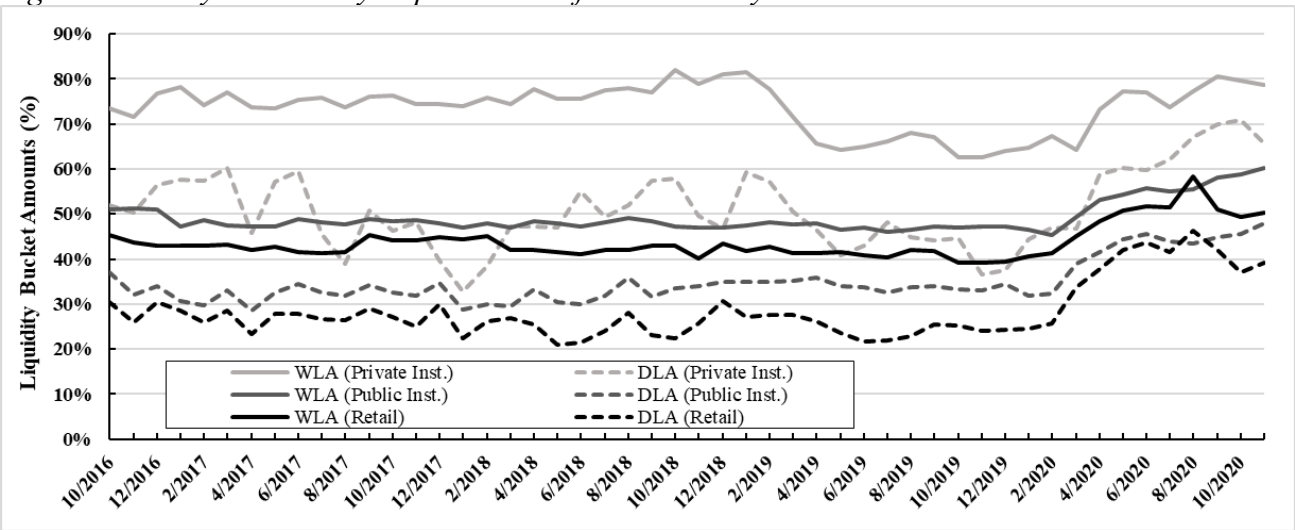
Figure 12: Commercial Paper, Certificates of Deposit, and Treasuries as a Share of Money Market Fund Portfolios, by Prime Fund Type.



c. Liquidity Management

The above portfolio differences between retail and institutional money market funds are also observed in the amount of the daily liquid assets and weekly liquid assets in prime fund portfolios, with retail fund daily and weekly liquid assets being lower than those of institutional funds. Figure 13 reports daily and weekly liquid asset percentages for prime funds.

Figure 13: Daily and Weekly Liquid Assets of Prime Money Market Funds



During peak volatility in March 2020, some funds experienced a reduction in their daily and weekly liquid asset values as they drew down on their liquid assets to meet large redemptions. Specifically, a high of 6 institutional prime funds on March 18 had weekly liquid assets below 35%, and one of the institutional prime money market funds had weekly liquid assets below 30%.[327] The largest fund outflow was a weekly decrease of 55% in assets under management, and the fund's weekly liquid assets declined from 38.8% to 32.2% over three consecutive days.

C. Costs and Benefits of the Proposed Amendments

1. Removal of the Tie Between the Weekly Liquid Asset Threshold and Liquidity Fees and Redemption Gates

a. Benefits

The proposal would remove the tie between money market funds' weekly liquid assets and the possible imposition of fees and redemption gates, as well as eliminate gate provisions from rule 2a-7. These amendments may benefit money market funds and their investors by reducing the risk of runs on money market funds, especially during times of liquidity stress.

As discussed in the introduction, money market funds use a pool of assets subject to daily redemptions to invest in short-term debt instruments that are not perfectly liquid, which renders them susceptible to a first mover advantage in investor redemptions akin to

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[327] *See* ICI MMF Report, *supra* footnote 45. ICI also reports that one of the institutional prime money market funds had weekly liquid assets of less than 30% on March 18, 2020. Currently, rule 2a-7 requires that a money market fund comply with the daily and weekly liquid asset standards at the time each security is acquired (rule 2a-7(d)(4)(ii) and (iii)).

bank runs.[328] Moreover, money market fund redemptions can impose liquidity externalities on shareholders remaining in the fund, as discussed in Section III.B.2. The possibility of a redemption fee or gate can magnify those incentives and externalities. Specifically, under the current baseline, money market funds may impose redemption fees or gates if their weekly liquid assets are below 30% of their total assets. Thus, as funds approach the 30% threshold, investors seeking to avoid a redemption gate or fee are incentivized to redeem before other redemptions further deplete a fund's liquid assets. The proposal is expected to reduce such incentives to redeem.

As a result, the proposed removal of the tie between weekly liquid assets and the potential imposition of liquidity fees or redemption gates may better enable funds to use their daily and weekly liquid assets to meet redemptions in times of stress without giving rise to risk of runs.[329] This benefit may be strongest for money market funds that have weekly liquid assets close to the minimum threshold during times of liquidity stress, as they are currently most susceptible to runs. Moreover, money market fund investors would no longer face the possibility of the imposition of gates outside of liquidations, enhancing the attractiveness of money market funds as a highly liquid investment product.

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328 *See, e.g.,* Schmidt, Lawrence, Allan Timmermann, and Russ Wermers. 2016. "Runs on money market mutual funds." American Economic Review, 106(9): 2625–57. Run dynamics in funds have been explored in a large body of finance research, including, for example: Zeng, Yao. 2017. "A dynamic theory of mutual fund runs and liquidity management." Available at SSRN 2907718; Chen, Qi, Itay Goldstein, and Wei Jiang. 2010. "Payoff complementarities and financial fragility: Evidence from mutual fund outflows." Journal of Financial Economics, 97(2): 239–262.

329 *See, e.g.*, SIFMA AMG Comment Letter; State Street Comment Letter.

This amendment may also benefit money market fund investors. As discussed above, the weekly liquid asset triggers for the possible imposition of redemption fees or gates create incentives for investors to redeem first, at the expense of investors remaining in the fund who experience further dilution during the gating period. The proposed removal of the weekly liquid asset trigger as well as the elimination of redemption gates outside of liquidation may reduce the liquidity costs borne by investors remaining in the fund. This aspect of the proposal may increase the attractiveness of money market funds as a low risk cash management tool and sweep investor account to risk averse investors.

b. Costs

As discussed in Section II.A, the proposal would not only remove the tie between fund weekly liquid assets and the possibility of gating and fees, but would also eliminate gate and fee provisions from rule 2a-7. As a result, money market funds would only be able to impose gates in the event of liquidation. To the degree that the ability to impose redemption gates or fees under rule 2a-7 may be a useful redemption management tool during times of stress, the proposed amendment may reduce the scope of tools available to money market funds to manage their liquidity risk in times of stress.

Four factors may mitigate this economic cost of the proposed amendment. First, no money market fund imposed a fee or a gate under the rule during the market stress of 2020, and investors exhibited anticipatory redemptions when funds approached the 30% weekly liquid threshold for the potential imposition of fees and gates. In light of these factors, money market funds may be unlikely to impose redemption gates outside of fund liquidation, even if we retained a redemption gate provision in rule 2a-7. As discussed in Section II.A, the possibility that a money market fund would impose redemption gates may influence investment and redemption decisions, which could trigger runs.

Second, under the proposal, institutional prime and institutional tax-exempt money market funds would be required to impose swing pricing, as discussed in greater detail below. NAV adjustments would not be tied to weekly liquid assets of the fund, but to the size of net redemptions and the liquidity costs redeeming investors are imposing on the shareholders remaining in the fund. The proposed swing pricing approach may be a more valuable tool for money market funds in managing investor redemptions than redemption gates and liquidity fees under rule 2a-7. Moreover, the proposed increases to daily and weekly liquidity thresholds may increase fund liquidity buffers that can be used to manage liquidity costs of redemptions.

Third, money market funds would continue to be able to suspend redemptions under rule 22e-3 in anticipation of fund liquidation. Specifically, money market funds would be able to suspend redemptions if a fund's weekly liquid assets decline below 10% or, in the case of a stable NAV money market fund, if the board determines that the deviation between its amortized cost price per share and its market-based NAV per share may result in material dilution or other unfair results to investors or existing shareholders, in each case if the board also approves liquidation of the fund.[330] Thus, money market funds would still have access to a form of gating during large liquidity shocks in connection with a fund liquidation.

Fourth, as a result of the run dynamics described above, the tie between weekly liquid assets and the potential imposition of fees and gates may have contributed to incentives for money market fund managers to preserve their weekly liquid assets during liquidity stress, rather than using them to meet redemptions. Therefore, the tie between

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[330] *See* 17 CFR 270.22e-3.

weekly liquid assets and the possibility of fees and gates may magnify liquidity stress because it incentivizes money market funds to sell less liquid assets with higher liquidity costs rather than absorb redemptions out of liquid assets. Thus, the proposed removal of fees and gates under rule 2a-7 may reduce run risk and liquidity externalities in money market funds.

2. Raised Liquidity Requirements

a. Benefits

The proposed amendments increasing daily and weekly liquid asset requirements to 25% and 50% respectively may reduce run risk in money market funds. Early redemptions can deplete a fund's daily or weekly liquid assets, which reduces liquidity of the remainder of the fund's portfolio and increases the risk that a fund may need to sell less liquid assets into the market during fire sales. Thus, higher levels of daily and weekly liquid assets in a fund may reduce trading costs and the first mover advantage during a wave of redemptions, potentially disincentivizing runs. When money market funds experience runs, funds with higher daily and weekly liquid assets may experience lower liquidity costs as they may be more likely to be able to use their liquid assets to meet redemptions rather than be forced to sell assets during liquidity stress.[331] Although liquidity dynamics in open end funds may differ from those in money market funds,[332] some research in that context shows that fund illiquidity can contribute to run dynamics,

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[331] *See* Prime MMFs at the Onset of the Pandemic Report, *supra* footnote 41, at 4. According to Form N-MFP filings, no prime money market fund reported daily liquid assets declining below the 10% threshold in March 2020.

[332] For example, unlike open end funds, money market funds are subject to daily and weekly liquid asset requirements.

as discussed in section III.B.2b. Some other work finds that less liquid open-end bond funds suffered more severe outflows during the COVID-19 crisis than liquid funds, and that less liquid funds experienced redemptions well before more liquid funds.[333] Other research shows that runs were more likely in less liquid funds for both U.S. and European institutional prime money market funds.[334]

The proposed increases to liquidity requirements may reduce the likelihood that funds need to sell portfolio securities during periods of market stress. This may reduce the potential effect of redemptions from money market funds on short-term funding markets during times of stress. Some commenters stated that redemptions from money market funds may not have contributed to stress in short-term debt markets during March 2020 and noted a relation between sales and the introduction of the Money Market Liquidity Facility (MMLF).[335] For example, one industry group conducted a survey of members that indicated the two-thirds of the reduction in prime money market funds' commercial paper holdings ($23 billion) represented sales to the MMLF after that facility was announced on March 18. The commenter suggested that because these sales moved assets from money market funds to the Federal Reserve's balance sheet, these sales would not have placed downward pressure on prices.[336] There may be varying

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333 *See* Falato, Antonio, Itay Goldstein and Ali Hortaçsu. 2021. "Financial Fragility in the COVID-19 Crisis: The Case of Investment Funds in Corporate Bond Markets." Journal of Monetary Economics, forthcoming.

334 *See* Cipriani, Marco and Gabriele La Spada. 2020. "Sophisticated and Unsophisticated Runs." FRB of New York Staff Report No. 956. *See also* Anadu, Kenechukwu, Marco Cipriani, Ryan Craver, and Gabriele La Spada. 2021. "The Money Market Mutual Fund Liquidity Facility." FRM of New York Staff Report No. 980.

335 *See, e.g.,* ICI Comment Letter I; ICI Comment Letter II; Federated Hermes Comment Letter I; SIFMA AMG Comment Letter.

336 *See, e.g.,* ICI Comment Letter I; ICI Comment Letter II.

interpretations of the effects of fund outflows in March 2020 on the prices of assets held by money market funds and, thus, the degree to which the proposed liquidity requirements may reduce the transaction costs and losses money market funds would face when selling portfolio securities into stressed markets. Importantly, the proposed liquidity requirements would enhance the ability of funds to meet large redemptions and reduce the dilution of remaining fund shareholders which would protect investors. Some commenters indicated that increases in the weekly liquid asset threshold would not necessarily result in enhanced money market fund liquidity because fund managers would continue to be reluctant to use a fund's liquid assets to fulfill redemptions.[337] Funds may choose between drawing down on daily or weekly liquid assets and selling other assets in distressed markets to meet redemptions. However, the proposed removal of the tie between weekly liquid assets and the potential imposition of redemption fees and gates may reduce the disincentives funds currently face to draw down their weekly liquid assets during a wave of redemptions. Before the 2014 amendments, the only consequence of a money market fund having weekly liquid assets below the 30% threshold was that the fund could not acquire any security other than a weekly liquid asset until its investments were above the 30% threshold. As a result, funds were more comfortable using their weekly liquid assets and dropping below the 30% threshold. For example, at the peak of the Eurozone sovereign crises in the summer of 2011 the lowest reported weekly liquid asset value was approximately 5%.[338] In combination with the proposed elimination of the tie between weekly liquid assets and potential imposition of

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337 *See, e.g.,* Wells Fargo Comment Letter; JP Morgan Comment Letter.

338 *See, supra* footnote 274, Figure 8.

gates and fees, the proposed liquidity requirements may similarly increase the reliance of money market funds on daily and weekly liquid assets in meeting redemptions. However, the proposal would also require prompt notice of falling below liquidity thresholds, which may decrease these benefits, as discussed in greater detail in Section III.C.6.

These benefits may also be mitigated to the extent that many money market funds may already voluntarily hold daily and weekly liquid assets in excess of the regulatory minimum thresholds.[339] For example, the asset weighted average daily and weekly liquid assets for publicly offered institutional prime money market funds between October 2016 and February 2020 was 33% and 48% respectively.[340] After the peak volatility in March 2020, money market funds generally increased their daily and weekly liquidity, with the asset weighted average daily and weekly liquid assets for publicly offered institutional prime money market funds rising to 44% and 56% respectively between March 2020 and November 2020. Importantly, the distribution of liquid assets is skewed, with approximately 50% of publicly offered institutional prime funds holding below average (44%) in daily liquid assets and 75% of funds holding below average (less than 56%) in weekly liquid assets. As a result, fewer prime funds may benefit from the proposed higher daily liquid asset threshold than the proposed higher weekly liquid asset threshold.

Reduced run risk in money market funds may enhance the resilience of affected funds and reduce the risk that money market funds may rely on government backstops. Moreover, this amendment may benefit investors to the degree that increasing the

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339 Wells Fargo Comment Letter; JP Morgan Comment Letter; Western Asset Comment Letter (noting that reporting and transparency requirements encourage managers to maintain liquid assets in excess of the existing WLA threshold).

340 Averages were calculated by dividing the aggregate amount of daily (weekly) liquid assets from all funds by the aggregated amount of assets from all fund.

liquidity of money market fund portfolios would allow funds to meet large redemptions from liquidity buffers more easily. For example, after the March 2020 market dislocation, some prime money market funds voluntarily shifted their portfolios by swapping out longer maturity commercial paper and certificates of deposit for more liquid Treasuries, allowing them to meet any future redemptions better. Raising liquidity thresholds may have a similar benefit.

The magnitude of these economic benefits is likely to depend on the way in which money market funds may respond to the proposed amendments. Specifically, some affected money market funds (*i.e.*, money market funds with less than the proposed 25% in daily and 50% in weekly liquid assets) may react to the proposal by increasing the maturity of the remainder of their portfolios, potentially reducing their liquidity to the extent that it is tied to maturity. However, under the current rules money market funds are constrained in the maturity and weighted average life of the assets they hold, which is intended to limit the degree to which funds are able to risk shift their portfolios while remaining registered as money market funds. Moreover, the liquidity stress in 2020 was so severe that commercial paper across a variety of maturities became illiquid.

b. Costs

The proposed amendments would impose indirect costs on money market funds, investors, and issuers. Because less liquid assets are more likely to yield higher returns in the form of a liquidity premium,[341] to the degree that the proposal improves the liquidity

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[341] *See, e.g.,* Lee, Kuan-Hui. 2011. "The World Price of Liquidity Risk." Journal of Financial Economics 99(1): 136-161. *See also* Acharya, Viral, and Lasse Pedersen. 2005. "Asset Pricing with Liquidity Risk." Journal of Financial Economics, 77(2): 375-410. *See also* Pastor, Lubos, and Robert Stambaugh. 2003. "Liquidity Risk and Expected Stock Returns." Journal of Political Economy 111(3): 642-685.

of money market fund portfolios, it would lower expected returns of those funds to investors that are already earning low and or zero net yields in a low interest rate environment. Several commenters have indicated that an increase in weekly liquid assets would likely decrease money market fund yields and make them less desirable to investors.[342] This may reduce the attractiveness of money market funds to some investors. Reduced investor demand may lead to a decrease in the size of assets under management of affected money market funds and the wholesale funding liquidity they provide to other market participants. Investors that prefer to use money market funds as a cash management tool, giving them the ability to preserve the value of their investments and receiving a small yield, may move out of prime money market funds and into government money market funds that deliver lower yields, but have lower risk to the value of the investment. Moreover, to the degree that some money market funds are only viable because investors treat them as cash equivalents, this amendment may result in better matching of investors to funds that meet their risk tolerance and yield expectations, mitigating the above costs.

The proposed increase of daily and weekly liquid assets may require as many as 15% of affected funds to increase their daily liquid assets and 50% of affected funds to increase their weekly liquid assets, as discussed in further detail below.[343] The proposal

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342 SIFMA AMG Comment Letter; Western Asset Comment Letter; Wells Fargo Comment Letter; JP Morgan Comment Letter.

343 The analysis is based on March 2020 redemptions from publicly offered institutional prime funds. The possible new thresholds determined by stress in publicly offered institutional prime fund portfolios are then applied to all money market funds (except for the daily liquid asset threshold for tax-free money market funds). As such, these figures also reflect the percentage of retail and institutional prime funds that would be impacted by the various liquidity thresholds. Important caveats and limitations of this analysis are discussed in Section III.D.2.a below.

would thus increase the demand of money market funds for daily liquid assets, such as repos, and the liquidity in overnight funding markets may then flow through banking entities to leveraged market participants, such as hedge funds. Thus, the proposal may reduce the liquidity risk borne by money market funds, but may result in a concentration of risk taking among leveraged and less regulated market participants. At the same time, this shift could allocate risk that currently resides in money market funds to hedge funds and other more speculative vehicles.

The proposed amendments may also impose indirect costs on issuers. Specifically, money market funds are significant holders of commercial paper and certificates of deposit, as described in the economic baseline,[344] and most of the commercial paper they hold is issued by banks, including foreign bank organizations.[345] Therefore, issuers of commercial paper and certificates of deposit are likely to experience incrementally reduced demand for their securities from money market funds, particularly demand for debt that would fall outside of the weekly liquid assets category. This may reduce such issuers' access to capital and increase the cost of capital, negatively affecting capital formation in commercial paper and certificates of deposit. Issuers may respond to such changes by reducing their issuance of commercial paper and certificates of deposit and increasing issuance of longer-term debt. In a somewhat analogous setting, some research explores the effects of the 2014 money market fund reforms, which resulted in asset outflows from prime money market funds into government money market funds and

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344 To the degree that some money market funds hold significant quantities of commercial paper issued by foreign banks seeking dollar funding, such issuer costs may have a greater effect foreign issuers.

345 *See* ICI MMF Report, *supra* footnote 45.

affected funding for large foreign banking organizations in the U.S., on bank business models.[346] One paper finds that banks were able to replace some of the lost funding, but reduced arbitrage positions that relied on unsecured funding, rather than reducing lending.[347] Another paper finds that money market fund reforms led to an increase in the relative share of lending in bank assets and concludes that reduction in unstable funding can discourage bank investments in illiquid assets.[348] Other research examined the effects of decreased holdings of European bank debt by money market funds during the Eurozone sovereign crisis in 2011. One paper found that reduced wholesale dollar funding from money market funds during this period led to a sharp reduction in dollar lending by Eurozone banks relative to euro lending, which reduced the borrowing ability of firms reliant on Eurozone banks prior to the sovereign debt crisis.[349]

These potential costs of the proposed amendment to issuers may be mitigated by four potential factors. First, as discussed above, money market funds may respond to a higher weekly liquid asset threshold by increasing the maturity and liquidity risk in their non-weekly liquid asset portfolio allocations. This effect may dampen the adverse demand shock for commercial paper, but increase portfolio risk of affected money market funds. However, as discussed in Section II.C. above, for the past several years prime

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346 These outflows around the October 2016 compliance date for the 2014 reforms, for example, led to reduced money market funds purchases of commercial paper with other entities like mutual funds eventually picking up the shortfall and an approximately 30 basis point spike in 90-day financial commercial paper rates for about three months.

347 *See, e.g.,* Anderson, Alyssa, Wenxin Du, Bernd Schlusche. 2019. "Money Market Fund Reform and Arbitrage Capital." Working Paper.

348 *See* Thomas Flanagan. 2020. "Funding Stability and Bank Liquidity." Working Paper.

349 *See* Ivashina, Victoria, David Scharfstein, and Jeremy Stein, 2015. "Dollar Funding and the Lending Behavior of Global Banks." Quarterly Journal of Economics 130(3): 1241-1281.

money market funds have maintained levels of liquidity that are close to or that exceed the proposed thresholds, without generally barbelling.[350] Second, as discussed in Section III.B.3.a), money market funds hold less than a quarter of outstanding commercial paper, which could limit the impact of the proposal on commercial paper issuers and markets. Third, the proposed increases to liquidity requirements may increase some money market fund's liquidity buffers, which may enable such funds to meet large redemptions from liquid assets and reduce the need to sell commercial paper to meet large redemptions during fire sales. This may enhance the stability of commercial paper markets during times of market stress – an effect that is also limited by the relative size of money market fund holdings of commercial paper. Fourth, money market funds are just one group of investors investing in commercial paper markets and hold less than a quarter of commercial paper outstanding, as discussed above. If money market funds pull back from commercial paper markets and commercial paper prices decrease as a result, other investors, such as mutual funds or insurance companies, may be attracted to commercial paper, absorbing some of the newly available supply, as observed after the 2016 reforms.

3. Stress Testing Requirements

a. Benefits

The proposal would also alter stress testing requirements for money market funds. Under the baseline, money market funds are required to stress test their ability to maintain 10% weekly liquid assets under the specified hypothetical events described in

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350 *See* BlackRock Comment Letter (stating that they have not seen evidence that barbelling was a problem in March 2020, or that money market fund portfolios were generally structured with a barbell). We similarly have not observed significant use of barbelling strategies among money market funds.

rule 2a-7 since breach of the 10% weekly liquid asset threshold would impose a default liquidity fee. The proposal would eliminate the default liquidity fee triggered by the 10% threshold and the corresponding stress testing requirement around the 10% weekly liquid asset threshold. Instead, the proposal would require funds to determine the minimum level of liquidity they seek to maintain during stress periods and to test whether they are able to maintain sufficient minimum liquidity under such specified hypothetical events, among other requirements.

Money market funds may have different optimum levels of liquidity under times of stress. Many factors influence optimum levels of minimum liquidity, including the type of money market fund, investor concentration, investor composition, and historical distribution of redemption activity under stress. This aspect of the proposal may increase the value of stress testing as part of fund liquidity management by allowing funds to tailor their stress testing to the fund's relevant factors, which may enhance the ability of funds to meet redemptions and the Commission's oversight of money market funds.

b. Costs

Proposed amendments to fund stress testing requirements may impose direct and indirect costs. Specifically, a fund would be required to determine the minimum level of liquidity it seeks to maintain during stress periods, identify that liquidity level in its written stress testing procedures, periodically test its ability to maintain such liquidity level, and provide the fund's board with a report on the results of the testing. As a baseline matter, funds are expected already to identify minimum levels of liquidity they seek to maintain during stress as part of routine liquidity management, and are required to test their ability to maintain such liquidity levels under the baseline liquidity thresholds. Money market funds have also established written stress testing procedures to comply

with existing stress testing requirements and report the results of the testing to the board. Thus, such funds may experience costs related to altering existing stress testing procedures as the proposal would move from bright line requirements to a principles based approach, as well as costs related to board reporting and recordkeeping.

Moreover, to the degree that funds may not always have sufficient incentives to manage liquidity to meet redemptions, they may choose insufficiently low minimum levels of liquidity for stress testing, which may reduce the value of stress testing and corresponding reporting for board oversight of fund liquidity risk. However, funds may have significant reputational incentives to manage liquidity costs – incentives that have, for example, led many funds to voluntarily provide sponsor support.

4. Swing Pricing

a. Benefits and Costs of Swing Pricing in Money Market Funds in General

As discussed in the economic baseline, money market fund investors transacting their shares typically do not incur the costs associated with their transaction activity. Instead, these liquidity costs may be borne by shareholders remaining in the fund, which may contribute to a first-mover advantage and run risk.[351] Moreover, as discussed above, liquidity management by money market funds imposes externalities on all participants investing in the same asset classes. This effect may be especially acute if there are large-scale net redemptions during times of market stress.

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[351] As discussed in the economic baseline, dilution costs most directly impact shareholders in floating NAV funds through changes to the NAV. In stable NAV funds, dilution costs can make the fund more likely to breach the $1 share price if dilution costs are large. It is also important to note that sponsors can choose to provide sponsor support to manage reputational costs.

The proposed amendments implementing swing pricing would require institutional prime and institutional tax-exempt money market funds to implement swing pricing procedures to adjust the fund's floating NAV so as to charge redeeming shareholders for the liquidity costs they impose on the fund when a fund experiences net redemptions. The adjusted NAV would apply to redeemers and subscribers alike. Thus, adjusting the NAV down when a fund is faced with net redemptions charges redeemers for the liquidity costs of their redemptions, but also allows subscribers to buy into the fund at the lower, adjusted NAV.[352] Under the proposal, the affected money market fund would recoup the full dilution costs by charging the redeemers for both the dilution cost of redemptions as well as the cost of allowing subscribers to buy into the fund at the lower adjusted NAV.

As discussed in greater detail in the section that follows, the proposed swing pricing requirement would require funds to estimate swing factors differently depending on the level of redemptions. If net redemptions in a particular pricing period are at or below the market impact threshold (of 4% divided by the number of pricing periods per day), swing factors would be required to incorporate spread and other transaction costs. If net redemptions exceed the market impact threshold, swing factors would be required to reflect spread and other transaction costs, as well as a good faith estimate of market impact of net redemptions. Thus, the magnitude of the adjustments to the NAV during normal market conditions may be small since money market funds already hold relatively

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352 Adjusting the NAV captures the liquidity costs that redeemers impose on the shareholders remaining in the fund. However, subscribers benefit from the lower NAV as well since subscribers buy into the fund at a lower NAV. Thus, the benefits of adjusting the NAV are shared between existing shareholders in the fund and subscribers.

high quality and liquid investments and would hold even higher levels of liquidity under the proposal, which may reduce liquidity costs when meeting redemptions.

One commenter indicated that because NAV adjustments may be small and investors are unable to observe at the time of placing their orders whether the fund will adjust its NAV, swing pricing may not have the intended impacts of swing pricing on investor behavior.[353] The proposed swing pricing requirement may increase the variability of institutional funds' NAV, which can reduce their attractiveness to investors. However, under the baseline, institutional funds experience NAV volatility, as demonstrated in Section III.B, and risk averse investors that prefer NAV stability may have already shifted to government money market funds or bank accounts around the 2016 implementation of money market fund reforms. Moreover, even if investors cannot observe whether the NAV will be adjusted on a particular day, if swing pricing accurately reflects liquidity costs, investors know that they would not be diluted if they stay in the fund, reducing their incentives to exit in anticipation of the application of a swing factor. Moreover, the rule is intended to address the dilution that can occur when a money market fund experiences net redemptions and is not intended to result in significant NAV adjustments unless there is significant net redemption activity leading to large liquidity costs.

The proposed swing pricing requirement may reduce dilution of non-redeeming shareholders in the face of net redemptions. Thus, swing pricing may reduce any first mover advantage, fund outflows, and any dilution resulting from these outflows.[354] In

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[353] *See* Fidelity Comment Letter.

[354] *See, e.g.,* Jin, Dunhong, Marcin Kacperczyk, Buge Kahraman, and Felix Suntheim. 2021.

other jurisdictions swing pricing is used as a mechanism to protect non-transacting shareholders from dilution attributable to trading costs, and as an additional tool to help funds manage liquidity risks.[355] To the degree that swing pricing reduces dilution, swing pricing may serve to protect investors that remain in a fund, for instance, during periods of high net redemptions. In addition, the proposed elimination of the ability to impose liquidity fees and gates under rule 2a-7 may increase the benefit of swing pricing as an important tool for money market funds to manage the liquidity costs of large-scale redemptions.

The above economic benefits of swing pricing may be reduced by several factors. First, several commenters have suggested that swing pricing adjustments would have been too small to affect investor redemptions and may not have addressed the issues that occurred in March 2020.[356] The implementation of swing pricing in the proposal appears to differ from that in these comment letters in that when net redemptions exceed the market impact threshold, swing factors would be required to reflect estimates of market impacts assuming redemptions are met through the liquidation of a pro-rata share of total portfolio assets. Thus, when net redemptions are large, swing factors may be larger than

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"Swing Pricing and Fragility in Open-end Mutual Funds." Review of Financial Studies, forthcoming.

355 However, swing pricing in these other jurisdictions differs somewhat from our proposed approach. For example, swing pricing often involves adjusting a fund's NAV in the event of net redemptions or net subscriptions. *Recommendation of the European Systemic Risk Board (ESRB) on liquidity risk in investment funds*, European Securities and Markets Authority (November 2020); *Liquidity Management in UK Open-Ended Funds*, Bank of England and the Financial Conduct Authority (March 26, 2021); and Jin, et al., Swing Pricing and Fragility in Open-end Mutual Funds (January 1, 2021) The Review of Financial Studies, forthcoming, *available at* SSRN: https://ssrn.com/abstract=3280890 or http://dx.doi.org/10.2139/ssrn.3280890.

356 *See, e.g.*, Fidelity Comment Letter; Western Asset Comment Letter; GARP Risk Institute Comment Letter.

estimated in these comment letters and may capture more of the dilution costs currently borne by nontransacting shareholders.

Second, the proposed swing pricing requirement only addresses the portion of dilution costs related to trading costs, and would not address other sources of dilution discussed in section III.B.2. Thus, the proposed requirement may only partly reduce the dilution costs that redemptions impose on non-transacting investors and the related liquidity externalities. We do not have granular data about daily money market fund holdings that would enable us to estimate the amount of dilution that could have been recaptured under the proposed approach in March 2020 or the prevalence of other sources of dilution discussed in Section III.B.2. To the best of our knowledge, such data is not publicly available, and we solicit any comment or data that could enable such quantification.

Third, as discussed in greater detail in Section II, the proposed swing pricing approach would require affected funds to calculate swing factors based on, among other things, estimates of market impacts. To the degree that it may be difficult to value illiquid assets without an active secondary market, particularly in times of severe liquidity stress, funds may need to use their discretion in the estimation of market impact factors. This may give affected funds some discretion in the calculation of swing factors. To the extent that institutional investors may be sensitive to NAV adjustments under the proposal, some funds may use discretion in the calculation of swing factors to reduce the NAV adjustments. At the same time, funds may use discretion to apply larger NAV adjustments so as to manipulate and presumably improve reported fund performance. Importantly, the proposed rule would require affected funds to use good faith estimates of

market impact factors. Moreover, discretion in the calculation of swing factors may increase noise in the NAV and may decrease comparability in returns. Investors may find it more difficult to interpret returns if swing pricing is applied inconsistently across funds.

The proposal would require affected funds to implement swing pricing, rather than make it optional. While money market funds may have reputational incentives to manage liquidity to meet redemptions, affected funds also face collective action problems and disincentives stemming from investor behavior. Specifically, to the degree that institutional investors may use institutional prime and institutional tax-exempt funds for cash management and their flows are sensitive to NAV adjustments, funds may be disincentivized to implement swing pricing and/or to adjust the NAV frequently. For example, even if all institutional money market funds recognized the benefits of charging redeeming investors for the liquidity costs of redemptions, no fund may be incentivized to be the first to adopt such an approach as a result of the collective action problem. By making swing pricing mandatory, rather than optional, the proposal is intended to ensure that funds adjust the NAV to capture the dilution costs of net redemptions and that money market fund returns are comparable across funds. Moreover, it may be suboptimal for an individual money market fund to implement swing pricing routinely, as the operational costs of doing so are immediate and certain, while the benefits are largest in relatively rare times of liquidity stress. The proposed application of swing pricing by all institutional prime and institutional tax-exempt funds is intended to ensure that swing pricing is deployed in times of severe stress by all affected funds, protecting investors from dilution costs when they are highest, and reducing liquidity externalities that money market funds may impose on other market participants trading the same asset classes.

The proposed swing pricing requirement would impose certain costs, as analyzed in Section IV. These costs may be passed along in part or in full to institutional money market fund investors, that are already earning low and or zero net yields in a low interest rate environment, in the form of higher expense ratios or fees. In addition, the proposal would require affected funds to calculate the swing factor based on net, rather than gross redemptions. As a result, the redeeming investors would be charged both for the direct liquidity costs of their redemptions, as well as for the dilution cost that results from allowing subscribers to buy into the fund at a lower adjusted NAV. While this would result in the non-transacting shareholders recapturing more of the dilution costs from redemptions, this aspect of the proposal would charge redeeming investors for more than the direct dilution cost of their redemptions, which may disincentivize redemptions and incentivize subscriptions.

The proposal may reduce investor demand for institutional prime and institutional tax-exempt money market funds. If the proposal reduces investor demand in some funds, it would lead to a decrease in assets under management of these money market funds, thereby potentially reducing the wholesale funding liquidity they provide to other market participants. The implementation of the floating NAV for institutional money market funds in 2016 resulted in a large scale reallocation of investor capital into stable NAV money market funds, as discussed in Section II.A. Thus, investor demand for institutional money market funds may depend on the low variability of their NAVs. The proposed swing pricing requirement would increase the volatility of affected money market fund NAVs, particularly in times of market stress. Some commenters also suggested that

swing pricing would reduce investor interest in money market funds.[357] A reduction in the number of money market funds and/or the amount of money market fund assets under management as a result of any further money market fund reforms would have a greater negative impact on money market fund sponsors whose fund groups consist primarily of money market funds, as opposed to sponsors that offer a more diversified range of mutual funds or engage in other financial activities (*e.g.*, brokerage).

These economic costs may be mitigated by three factors. First, the proposed swing pricing requirement is tailored to the level of net redemptions. When net redemptions are low (at or below the market impact factor threshold) and under normal market conditions, the proposed swing pricing requirement is economically equivalent to requiring funds strike the NAV at bid prices of securities (since other transaction costs may also be low under normal conditions). As discussed in the economic baseline, some fund complexes may already be striking NAV at bid prices.

Second, money market funds hold assets that are more liquid and less risky when compared to other open-end funds. Under normal market conditions, funds may be able to apply a small swing factor that only affects the fund's NAV to the fourth decimal place. Affected money market funds' NAV adjustments would likely be greater during severe stress, when redeemers impose significant costs on the remaining fund investors.

Third, the proposed swing pricing requirement would require redeeming investors to internalize the costs that their trading imposes on the investors remaining in the fund, reducing the liquidity externalities currently present in institutional prime and

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357 *See, e.g.,* BlackRock Comment Letter; GARP Risk Institute Comment Letter; mCD IP Comment Letter.

institutional tax exempt money market funds. Moreover, to the degree that some institutional investors may not be aware of the dilution risk of affected money market funds, the proposed swing pricing requirement may increase investor awareness of such risks. Importantly, the proposed swing pricing requirement may enhance allocative efficiency. As discussed above, the swing pricing requirement could cause some investors to move their assets to government money market funds to avoid the possibility of paying liquidity costs of redemptions. Government money market funds may be a better match for these investors' preferences, however, in that government money market funds face lower liquidity costs and these investors may be unwilling to bear any liquidity costs.

The proposed swing pricing requirement may impose costs on investors redeeming shares in response to poor fund management or a fund complex's emerging reputational risk. Under the proposal, all net redemptions out of affected funds, regardless of the cause for the redemption, would result in the NAV being adjusted by the swing factor. While this may impose costs on efficiency – as redemptions out of poorly managed funds are efficient and an important part of market discipline of fund managers – this aspect of the proposal would also capture the liquidity costs that such redemptions impose on affected funds.

Two factors may reduce the magnitude of these effects on the incentives of fund managers. First, money market funds are subject to requirements of rule 2a-7 and the proposal would increase minimum daily and weekly liquid asset requirements applicable to money market funds thereby further restricting fund managers from investing in illiquid assets. Second, the proposal would require disclosures regarding historical swing

factors, which may make liquidity costs of redemptions more transparent to investors and lead to affected funds competing on swing factors they charge investors. In addition, the proposed swing pricing requirement may pose a number of implementation challenges and impose related costs on money market funds, third party intermediaries, and investors.[358] First, swing pricing would require affected money market funds to estimate both direct and indirect trading costs on a daily or more frequent basis, which may be particularly time consuming and challenging during times of stress. Liquidity costs are not normally charged separately to money market funds, but are expressed in less favorable prices or the inability to sell assets under stress. Moreover, money market fund holdings of many assets, such as municipal securities, certificates of deposit and commercial paper, are not exchange traded and many such assets do not have an active secondary market. As a result, estimating transaction costs and market impact factors of each component of a money market fund portfolio may be time consuming and difficult, especially during a liquidity freeze. Moreover, to the degree that some affected funds may engage in interfund borrowing to meet redemptions, such costs would not be captured by the proposed approach.

Second, the implementation of swing pricing would require affected money market funds to receive timely information about order flows. Some commenters indicated that swing pricing in money market funds is currently impractical because some intermediaries may report flows with a delay.[359] However, as discussed in section

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358 *See, e.g.*, SIFMA AMG Comment Letter; JP Morgan Comment Letter; GARP Risk Institute Comment Letter.

359 *See, e.g.*, ICI Comment Letter I; PIMCO Comment Letter; Fidelity Comment Letter; Federated Hermes Comment Letter I.

III.B.1.a above, many affected money market funds impose order cut-off times that ensure that they receive orders prior to striking their NAV. Therefore, many affected money market funds may already have the necessary information to determine when the fund has net redemptions and a swing factor needs to be applied. Affected money market funds that do not already have cut-off times may introduce cut-off times for order submissions by intermediaries, such as broker-dealers, retirement fund administrators, investment advisers, transfer agents, and banks, bearing related costs. Such funds may face additional operational complexity and costs to implement a cut-off time or otherwise gather the necessary information to determine whether it has net redemptions for each pricing period.

Third, the proposed swing pricing requirement is likely to reduce the feasibility and increase the costs of same day settlement and the ability of affected funds to offer multiple NAV strikes per day.[360] Specifically, affected money market funds may not have enough time to accurately estimate flows, make pricing decisions, and strike the NAV while meeting their existing settlement timeframes. This may cause affected funds to reduce the number of NAV strikes per day or move the last NAV strike to an earlier time, which could reduce the attractiveness of affected money market funds for liquidity-seeking investors. Some research finds that funds offering multiple intraday NAVs and redemptions experienced significantly larger outflows during times of stress when compared with single-strike funds.[361] While this research does not distinguish between

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360 *See, e.g.*, ICI Comment Letter I; SIFMA AMG Comment Letter; Western Asset Comment Letter; Federated Hermes Comment Letter I; JP Morgan Comment Letter; Institute of International Finance Comment Letter; CCMR Comment Letter.

361 *See, e.g.,* Casavecchia, Lorenzo, Georgina Ge, Wei Li, and Ashish Tiwari. 2021. "Prime

causal impacts of multiple NAV strikes a day on run risk and selection effects (with more liquidity seeking investors being attracted to multiple-strike funds), it suggests that multiple-strike funds were more prone to large investor redemptions in March 2020. Thus, the proposed swing pricing requirement for multiple NAV strikes per day funds may represent a tradeoff between potential adverse effects on the ability of some affected funds to offer intraday redemptions and slower settlement on the one hand, and potential reductions in run risk in money market funds on the other.

Fourth, the proposed swing pricing requirement may increase costs of tax reporting. Specifically, the swing pricing requirement may increase tax reporting burdens for investors if the requirement prevents an investor from using the NAV method of accounting for gain or loss on shares in a floating NAV money market fund or affects the availability of the exemption from the wash sale rules for redemptions of shares in these funds.

b. Benefits and Costs of Specific Aspects of the Proposed Implementation of Swing Pricing

The proposed implementation of swing pricing to institutional prime and tax-exempt funds is characterized by four features. First, the swing factor must reflect spread and transaction costs, as applicable. Second, if the institutional fund has net redemptions exceeding 4% divided by the number of pricing periods per day, the swing factor would also require the inclusion of estimated market impacts that net redemption would have on the value of the fund portfolio. Swing pricing administrators would have flexibility to include market impacts in the swing factor if net redemptions are at or below the market

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Time for Prime Funds: Floating NAV, Intraday Redemptions and Liquidity Risk During Crises." Working paper.

impact threshold. Third, the proposal would require funds to calculate the swing factor under the assumption that the fund would sell all assets in the fund portfolio proportionally to the amount of net flows to meet net redemptions (the so-called vertical slice of the fund portfolio), rather than absorb redemptions out of liquid assets (the so-called horizontal slice of the fund portfolio). Fourth, the NAV adjustment would only occur when affected funds have net redemptions and not when they have net subscriptions. These features of the proposed swing pricing requirement aim to more fully and in a more tailored manner address the liquidity externalities that redeemers impose on investors remaining in the fund and are expected to result in reductions in the first mover advantage and run risk in institutional money market funds.

i. Benefits

Under the proposal, when net redemptions are at or below the market impact threshold of 4% divided by the number of pricing periods per day, the swing factor would be determined based on the spread costs and other transaction costs (*i.e.*, brokerage commissions, custody fees, and any other charges, fees, and taxes associated with portfolio security sales). As discussed above, such direct transaction costs contribute to dilution of shareholders remaining in the fund and this aspect of the proposal may reduce dilution costs of non-transacting investors. Notably, adjusting the NAV by the spread costs of redemptions is economically equivalent to striking the NAV at the bid price and, as discussed above, some money market funds may already do so in the regular course of business. As a result, the swing pricing requirement for funds when net redemptions are at or below the market impact threshold would primarily affect institutional funds that use mid-market pricing to compute their current NAVs. In addition, when net redemptions are at or below the market impact threshold, the proposal would require the

NAV adjustment to reflect other transaction costs, which currently contribute to dilution of non-transacting shareholders. Based on an analysis of historical daily redemptions out of institutional prime and institutional tax-exempt money market funds between December 2016 and October 2021 and discussed in greater detail in Section III.D.4, approximately 5% of trading days[362] may involve such net redemptions. Approximately 3 out of the 53 (5%) institutional funds as of October 2021 would have outflows exceeding this threshold on an average trading day. As can be seen from that analysis, net flows on most days are low, so funds rarely experience large net redemptions that have significant market impact that would dilute investors.[363]

Under the proposal, if net redemptions exceed the market impact threshold of 4% divided by the number of pricing periods per day, the swing factor would be required to include not only the spread costs and other transaction costs, but also good faith estimates of the market impact of net redemptions. To the extent funds are able to estimate/forecast market impact costs accurately, the proposed requirement to assess the market impact of redemptions when net redemptions exceed the market impact threshold would result in redeeming investors bearing not only the direct spread and transaction costs from their redemptions, but also the impact of their redemptions on the market value of the fund's holdings. This may allow shareholders remaining in the fund to capture more of the dilution cost of redemptions, which includes not only direct transaction costs and near-term price movements, but the impact of the redemptions on the fund's portfolio as a

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362 This analysis is based on historical daily redemptions. Since multiple NAV-strike a day funds would apply the threshold multiple times a day under the proposal, this analysis may under- or over-estimate how frequently a threshold may be applied.

363 The threshold is based on historical data demonstrating that the 4% threshold approximately corresponds to the 5th percentile of daily fund flows.

whole. However, the magnitude of this benefit may be reduced by the fact that the proposal would only require market impact factor adjustments if redemptions exceed the market impact threshold. Based on an analysis of historical daily redemptions, approximately 5% of trading days may involve such net redemptions.[364]

Importantly, the proposed implementation of swing pricing would require funds to calculate the swing factor as if the fund were selling the pro-rata share of all of the fund's holdings, rather than, for example, assuming the fund would absorb redemptions out of daily liquid assets. If a fund were to absorb large redemptions out of daily or weekly liquid assets, the immediate transaction costs imposed on the funds would be lower. However, the fund would have less remaining daily and weekly liquidity and transacting shareholders would be diluting remaining investors in a manner not captured by estimated transaction costs. Thus, this aspect of the proposal would make redeeming investors bear not just the immediate costs of covering redemptions, but also the costs of rebalancing the fund portfolio to the pre-redemption levels of liquid asset holdings.

Finally, the proposal would apply swing pricing to net redemptions, rather than both net redemptions and net subscriptions. Redemptions, not subscriptions, pose the greatest run risk. This aspect of the proposal may reduce the operational costs of implementing swing pricing by eliminating the need for funds to perform the swing factor analysis when they are faced with net subscriptions.

ii. Costs

The proposed implementation of swing pricing may give rise to burdens on money market funds. As described in the economic baseline, money market fund

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[364] *Id.*

holdings exhibit little price volatility outside of times of severe stress, such as during the 2008 financial crisis and March 2020 volatility. The proposal would require funds to apply swing pricing during pricing periods with net redemptions, which would impose operational burdens on money market funds. However, these burdens may be mitigated by the fact that the funds scoped into this proposed requirement already have to perform an analysis to float the NAV[365] and the fact that some affected money market funds may already be using bid prices to strike the NAV.

In addition, the proposed approach would require redeeming shareholders to bear liquidity costs larger than the direct liquidity costs they may impose on the fund. Specifically, the proposal would require institutional funds to calculate the swing factor assuming the fund would absorb flows by trading the pro-rata share of all of the fund's holdings, rather than specific asset types. Given the nature of money market fund holdings (as described in the economic baseline), money market funds typically absorb redemptions out of daily and weekly liquid assets. Moreover, their ability to do so may be increased by the proposed amendments to raise the daily and weekly liquid asset requirements. At the same time, assets other than daily and weekly liquid assets – such as municipal securities and commercial paper that do not mature in the near term – may become illiquid in times of stress and may need to be held to maturity by the fund. Thus, the realized transaction costs of most redemptions may be zero as funds absorb them out of daily liquidity, while the true liquidity costs of redemptions may consist of the depletion of daily and weekly liquidity during times of stress (when rebalancing is especially expensive) rather than the sale of illiquid assets. This aspect of the proposal,

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[365] *See* 17 CFR 270.2a-7(c)(1)(ii); 17 CFR 270.2a-4.

therefore, could impose a large cost on redeemers that does not represent the actual cost realized from their trading activity, which may reduce the attractiveness of affected money market funds to investors. Notably, liquidity costs paid by redeemers under the proposed swing pricing requirement would flow back to remaining shareholders, disincentivizing redemptions and reducing the first mover advantage during times of stress.

Moreover, market impact factors (which are estimates of the percent change in the price of an asset per dollar sold) and spread costs may be difficult to estimate precisely, especially in times of stress and when many of the assets money market funds hold lack a liquid secondary market. These difficulties may be attenuated to the degree that funds may be calculating market impact factors to assess trading costs and determine optimal trading strategies; however ex ante estimates of transaction costs and market impact factors may be more difficult than ex post assessment of trading costs and market impacts. This aspect of the proposal may lead money market funds to disinvest from some securities and asset classes with less trade and quotation data for an accurate estimate of market impact factors. While this may decrease liquidity risk in institutional funds, this may also reduce the amount of maturity and liquidity transformation they perform. Moreover, to the degree that funds' estimation of market impacts and spread costs may be imprecise, funds may charge redeeming investors an inaccurate fee that under- or over-estimates the actual liquidity costs funds incurred by funds after redemptions. The proposal seeks to reduce such costs by requiring the calculation of market impact factors in swing pricing only when net redemptions exceed 4% divided by the number of pricing periods per day.

5. Amendments Related to Potential Negative Interest Rates

As a baseline matter, negative interest rates have not occurred in the United States and money market funds are not currently implementing reverse distribution mechanisms. Moreover, government and retail money market funds and their transfer agents are already required to be able to process transactions at a floating NAV. Thus, the proposal would restrict how money market funds may react to possible future market conditions resulting in negative fund yields and would effectively expand existing requirements related to processing orders under floating NAV conditions to all intermediaries. Government and retail money market funds would also be required to keep records identifying intermediaries able to process orders at a floating NAV.

The proposal is intended to create transparency for investors in stable NAV funds in the event of negative yields. As discussed in Section III.D., the reverse distribution mechanism, if implemented by some funds, may mislead investors about the value of their investments. Requiring stable NAV funds to implement a floating NAV in a negative yield environment may better inform investors about the performance of their investment than allowing such funds to preserve a stable NAV, but decrease the number of investor shares.[366] Moreover, the proposed amendments related to fund intermediaries may facilitate a transition of stable NAV funds to floating NAV in a negative yield environment. Notably, these benefits would only be realized in persistently negative yield environments.

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[366] Jose Joseph Comment Letter.

The proposed amendments may impose significant operational burdens and costs on investors. For example, requiring retail funds to switch from a stable NAV to a floating NAV may create accounting and tax complexities for some retail investors.[367] In addition, a floating NAV requirement may be incompatible with popular cash management tools such as check-writing and wire transfers that are currently offered for many stable NAV money market fund accounts.[368]

The proposed requirement that government and retail money market funds determine that their intermediaries have the capacity to process the transactions at floating NAV and the related recordkeeping requirements would impose burdens on these funds, as estimated in Section IV. For example, affected money market funds may have to review their contracts with intermediaries, and some contracts may need to be renegotiated. Funds would have flexibility in how they make this determination for each financial intermediary, which may reduce these costs for some funds. Moreover, intermediaries that are currently unable to process transactions in stable NAV funds at a floating NAV may need to upgrade their processing systems to be able to continue to transact in government and retail funds. If some intermediaries are unable or unwilling to do so, the proposed requirement may adversely impact the size of intermediary distribution networks of some funds, which can limit access or increase the costs of investor access to some affected funds. However, there may be economies of scope in intermediating orders for both stable NAV and floating NAV funds, especially since

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367 *See, e.g.,* ICI Comment Letter I; Federated Hermes Comment Letter I; Madison Grady Comment Letter; Comment Letter of Carter Ledyard Milburn (Apr. 15, 2021).

368 *See, e.g.,* ICI Comment Letter I; Madison Grady Comment Letter.

some investors may allocate assets in both stable NAV and floating NAV funds. To the extent that many of the same intermediaries may process orders for floating and stable NAV money market funds, such intermediaries may already have processing systems adequate capable of processing transactions in stable NAV funds at a floating NAV should such a transition occur. Nevertheless, the use of stable NAV money market funds as sweep vehicles may present operational difficulties for intermediaries, and the burdens of the rule may increase the costs of and reduce the reliance on stable NAV funds for sweep accounting.

As with other costs of the proposal, any compliance costs borne by money market funds may be passed along to investors in the form of higher fund expense ratios. The proposed amendments are justified because they serve to protect investors of stable NAV funds and create price transparency in the event of negative yields.

6. Amendments to Disclosures on Form N-CR, Form N-MFP, and Form N-1A

a. Benefits and Costs of the Proposed Prompt Notice of Liquidity Threshold Events on Form N-CR and Board Reporting

The proposed amendments would require money market funds to file a Form N-CR report whenever a fund has invested less than 25% of its total assets in weekly liquid assets or less than 12.5% of its total assets in daily liquid assets. Specifically, in the event of such a liquidity threshold event, the amendments would require money market funds to disclose: the date of the initial liquidity threshold event, the percentage of the fund's total assets invested in both weekly liquid assets and daily liquid assets on the day of the event, and a brief description of the facts and circumstances leading to the event.

As a baseline matter, daily and weekly liquid assets are currently required to be disclosed on fund websites on a daily basis. Relative to that baseline, the proposed requirement for funds to report on Form N-CR may enhance Commission oversight and transparency about money market fund liquidity during times of stress by providing additional information about the circumstances of a fund's significantly reduced liquidity levels. The proposed amendments may also have the effect of incentivizing funds to maintain daily and weekly liquidity above the reporting thresholds, including in times of stress.

Publication of notices surrounding liquidity threshold events may inform investors about reasons behind the threshold event. To the degree that some funds' liquidity threshold events may be indicative of persistent liquidity problems or mismanagement of liquidity risk, and to the extent that notices may better inform investors about such causes (relative to baseline website disclosures of liquidity levels), publication of such notices may trigger investor redemptions out of the most distressed funds. However, this risk may be reduced because under the proposed swing pricing approach, redeemers would be charged the cost of their redemptions and related dilution costs would be recaptured by the shareholders remaining in the fund.

The proposal would also require money market funds to notify their boards when they drop below the 12.5% daily and 25% weekly liquidity asset thresholds, as discussed in section II.C.2. Since the proposal would require that liquidity threshold events are reported on Form N-CR, we preliminarily believe that funds would routinely notify the board of such events without an explicit board notification requirement. However, to the degree that some fund boards may not be notified of some events subject to Form N-CR

reporting, the board notification requirement could enhance the oversight of fund boards over liquidity management, particularly during periods of stress.

The proposed amendments to Form N-CR would impose direct compliance costs by imposing reporting burdens discussed in Section IV. Due to economies of scale, such costs may be more easily borne by larger fund families. In addition, the proposed prompt notice requirement may give rise to two sets of costs. First, the proposed requirement may lead fund managers to manage their portfolios specifically to try to avoid a reporting event, rather than in a way that is most efficient for fund shareholders. Second, the proposed requirement may result in money market fund managers spending compliance resources on amending Form N-CR to describe the circumstances of the liquidity threshold event, which may divert managerial resources away from managing redemptions in times of stress. Costs borne by money market funds may be passed along to investors in the form of higher fees and expenses. However, as discussed above, the promptness of the notice requirement may enhance Commission oversight and transparency to investors, incentivize funds to closely monitor their liquidity levels, and ultimately better protect investors.

b. Benefits and Costs of the Proposed Form N-MFP Amendments

Proposed amendments to Form N-MFP would require reporting of daily data points on a monthly basis, of securities that prime funds have disposed of before maturity, of the composition of institutional money market funds' shareholders and concentration of money market fund shareholders, and of additional information about repurchase agreement transactions (including through the proposed removal of a

provision that allows aggregate information when multiple securities of an issuer are subject to a repurchase agreement), among other changes.

Broadly, the proposed amendments to Form N-MFP may make the form more usable by filers, regulators, and investors, and may increase transparency around money market fund activities in four ways. First, the amendments may reduce uncertainty among filers and reduce filing errors. Second, the proposed requirement that the funds report their liquid assets, flows, and NAV on a daily basis may reduce costs of accessing this information relative to the baseline of routinely accessing and downloading information across many fund websites. Third, additional information about fund repo activities would enable investors and the Commission to better assess fund liquidity risks and oversee the industry. Fourth, information about shareholder concentration and composition can help the Commission and investors understand and evaluate potential redemption behavior and related investor risks.

In addition, the proposal would add disclosure requirements to Form N-MFP intended to capture information about the relevant funds' use of swing pricing, which would include each swing factor applied during the reporting period, the number of times a fund applies a swing factor during the reporting period, and the end-of-day NAV per share (as adjusted by a swing factor, as applicable) for each business day of the reporting period. These amendments are expected to benefit investors in money market funds by reducing information asymmetries between institutional funds and investors about these funds' swing pricing practices. Investors in these funds experience price fluctuations and, thus, accept price risks inherent in floating NAVs. However, swing pricing has not yet been implemented by any U.S. open-end fund, and money market funds are currently not

permitted to use swing pricing. The purpose of the proposed disclosure requirement is, thus, to inform investors about the manner in which affected money market funds implement swing pricing. Such transparency may result in greater allocative efficiency as investors with low tolerance of liquidity risk and costs may choose to reallocate capital to money market funds that have lower liquidity risk and costs. In addition, to the degree that uncertainty about the proposed swing pricing requirement may reduce the attractiveness of affected money market funds to investors, transparency about historical swing factors may reduce those adverse effects.

The proposed amendments to Form N-MFP would impose initial and ongoing PRA costs, as discussed in Section IV below. We understand that money market funds generally already maintain the information they would be required to report on Form N-MFP pursuant to other regulatory requirements or in the ordinary course of business. However, funds would incur some costs in reporting the information. We continue to note that, due to economies of scale, such costs may be more easily borne by larger fund families, and that costs borne by money market funds may be passed along to investors in the form of higher fees and expenses. In addition, the proposed disclosures of each swing factor, the number of times a swing factor was applied, and the end-of-day NAV per share (which would reflect applicable swing pricing adjustments to that end of day NAV) may create incentives for money market funds to compete on this dimension. Specifically, institutional investors who use institutional funds for cash management and prefer lower variability in the value of their investments may move capital from money market funds that had high historical swing factors to funds with lower swing factors. However, while NAV swings penalize redeemers, they benefit investors remaining in the

fund, which may make funds actively using swing pricing more attractive to longer term institutional investors.

c. Benefits and Costs of the Proposed Amendments to Form N-1A.

The proposal would require institutional money market funds to provide swing pricing disclosures to investors, including a risk disclosure. Specifically, the proposal would require funds required to implement swing pricing to explain how they use swing pricing and describe the effects of swing pricing on the fund's average annual total returns for the applicable period(s). This aspect of the proposed amendments to Form N-1A is expected to enhance transparency about institutional fund's swing pricing practices. NAV adjustments under the proposed swing pricing requirement would be a novel aspect of pricing, influencing both the dilution risk and the returns of affected funds. Disclosure about the effects of swing pricing on historical fund returns is expected to help investors understand the liquidity costs of redemptions from a particular fund, as well as the degree to which the fund would recapture dilution of shareholders remaining in the fund. However, the proposed amendments would impose direct reporting burdens estimated in Section IV – costs that may be more easily borne by larger fund complexes due to economies of scale, and costs that may be passed along in part or in full to end investors.

The proposed amendments would also remove current disclosures related to the imposition of liquidity fees and any suspension of redemptions, the need for which would be obviated by the proposal to remove fees and gates from rule 2a-7.

d. Benefits and Costs of Proposed Requirements Related to Identifying Information on Form N-CR and Form N-MFP

The proposed amendments would also require the registrant name, series name, related definitions, and LEIs for the registrant and series on Form N-CR. In addition, the

proposal would require money market funds to report LEIs for the series on Form N-MFP.[369] The LEI is used by numerous domestic and international regulatory regimes for identification purposes.[370] As such, requiring these additional disclosures could enable data users such as investors and regulators to cross-reference the data reported on Forms N-CR with data reported on Forms N-MFP and with data received from other sources more easily, thereby expanding the scope of information available to such data users in their assessments.[371] All money market funds already have registrant and series LEI due to baseline Form N-CEN reporting requirements. The proposed amendments to Form N-MFP would also require other information to better identify different types of money market funds, such as amendments to better identify Treasury funds and funds that are used solely by affiliates and other related parties. These amendments would help the Commission and market participants to identify certain categories of money market funds more efficiently. However, the proposed requirements to improve identifying information may give rise to direct compliance costs associated with amending reporting on Forms N-CR and N-MFP, as discussed in Section IV.

In addition to the entity identification information (*e.g.,* registrant name, series name, related definitions, and LEIs) discussed above, the proposed amendments would also expand security identification information by adding a CUSIP requirement for

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369 Under the baseline, money market funds are already currently required to report registrant LEIs on Form N-CEN.

370 Other regulators with LEI requirements include the U.S. Federal Reserve, E.U.'s MiFid II regime, and Canada's IIROC; the LEI is also used by private market participants for risk management and operational efficiency purposes. *See* https://www.leiroc.org/lei/uses.htm.

371 Fees and restrictions are not imposed for the usage of or access to LEIs.

collateral securities that money market funds report on Form N-MFP. CUSIP numbers are proprietary security identifiers and their use (including storage, assignment, and distribution) entails licensing restrictions and fees that vary based on factors such as the number of CUSIP numbers used.[372] Money market funds are currently required to disclose CUSIP numbers for each holding they report on Form N-MFP.[373] As such, the incremental compliance cost on money market funds associated with the proposed CUSIP requirement, compared to the baseline, would be limited to those costs, if any, incurred by money market funds as a result of storing additional CUSIP numbers (to the extent money market funds do not already store CUSIP numbers for their collateral securities).[374]

e. Benefits and Costs of Proposed Structured Data Requirement for Form N-CR

The proposed amendments would require money market funds to submit reports on Form N-CR using a structured, machine-readable data language—specifically, in an XML-based language created specifically for Form N-CR ("N-CR-specific XML").[375]

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372 The CUSIP system (formally known as CUSIP Global Services) is owned by the American Bankers Association and managed by Standard & Poor's Global Market Intelligence. *See* CGS History, *available at* https://www.cusip.com/about/history.html, and License Fees, *available at* https://www.cusip.com/services/license-fees.html.

373 *See* Item C.3 of Form N-MFP.

374 CUSIP license costs vary based upon, among other factors, the quantity of CUSIP numbers to be used, on a tiered model, with the lowest tier being up to 500 CUSIP numbers. *See* CGS License Structure, *available at* https://www.cusip.com/services/license-fees.html#/licenseStructure. Based on our understanding of current CUSIP licenses and usage among money market funds, we do not believe the proposed CUSIP reporting requirement for collateral securities is likely to impose incremental compliance costs on money market funds by moving them into a new CUSIP license pricing tier.

375 This would be consistent with the approach used for other XML-based structured data languages created by the Commission for certain specific EDGAR Forms, including

Currently, money market funds submit reports on Form N-CR in HTML or ASCII, neither of which is a structured data language.[376] This aspect of the proposed amendments is expected to benefit investors in money market funds by facilitating the use and analysis, both by the public and by the Commission, of the event-related disclosures reported by money market funds on Form N-CR, as compared to the current baseline. The improved usability of Form N-CR could enhance market and Commission monitoring and analysis of reported events, thus providing greater transparency into potential risks associated with money market funds on an individual level and a population level.

We anticipate that the incremental costs associated with requiring money market funds to submit reports on Form N-CR in N-CR-specific XML, compared to the baseline of submitting Form N-CR in HTML or ASCII, would be low given that money market funds already utilize XML-based languages to meet similar requirements in their other reporting, and can utilize their existing capabilities for preparing and submitting Form N-CR.[377] Under the proposed rule, money market funds that choose to submit Form N-CR directly in N-CR-specific XML (rather than use the fillable web form) would incur the

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Form N-CEN and Form N-MFP. *See* Current EDGAR Technical Specifications, *available at* https://www.sec.gov/edgar/filer-information/current-edgar-technical-specifications.

376 *See supra* footnote 247.

377 *See supra* footnote 331. In addition, money market funds would be given the option of filing Form N-CR using a fillable web form that will render into N-CR-specific XML in EDGAR, rather than filing directly in N-CR-specific XML using the technical specifications published on the Commission's website.

incremental compliance costs of updating their existing preparation and submission processes to incorporate the new technical schema for N-CR-specific XML.[378]

7. Amendments Related to the Calculation of Weighted Average Maturity and Weighted Average Life

The Commission is proposing amendments to rule 2a-7 to specify that WAM and WAL must be calculated based on percentage of each security's market value in the portfolio, rather than based on amortized cost of each portfolio security. These amendments may enhance consistency and comparability of disclosures by money market funds in data reported to the Commission and provided on fund websites. A consistent definition of WAM and WAL across funds can enhance transparency for investors seeking to assess the risk of various money market funds and may increase allocative efficiency. Moreover, greater comparability of WAM and WAL across money market funds may enhance Commission oversight of risks in money market funds. These amendments are not expected to give rise to direct compliance costs. Specifically, we understand that all money market funds currently determine the market values of their portfolio holdings.[379] Thus, the costs of these proposed amendments may be de minimis.

D. Alternatives[380]

1. Alternatives to the Removal of the Tie Between the Weekly Liquid Asset Threshold and Liquidity Fees and Redemption Gates

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378 *See infra* Section IV.E.

379 Money market funds that use a floating NAV use market values when determining a fund's NAV, while money market funds that maintain a stable NAV are required to use market values to calculate their market-based price at least daily.

380 This discussion supplements the discussion of alternatives in other sections of the release.

The proposal could have replaced the 30% weekly liquid asset threshold for the imposition of redemption gates or fees with a different threshold. This alternative would allow money market funds to impose gates or fees during large redemptions to reduce some of the dilution costs during large redemptions. However, this alternative could still trigger runs on money market funds close to the regulatory threshold in times of liquidity stress. When funds approach any regulatory threshold that can trigger a redemption gate or fee, investors are incentivized to redeem ahead of others to avoid a potential gate or fee and retain access to their capital during liquidity stress. Thus, the existence of a transparent threshold, rather than the size of the threshold itself, may make money market funds vulnerable to runs. Moreover, even under the proposed removal of redemption fees and gates under rule 2a-7, money market funds are still able to reduce dilution costs during large redemptions under current rule 22e-3 where a fund's weekly liquid assets drop below 10%. A fund's board could also determine to impose redemption fees under Rule 22c-2.

The proposal could also have reduced or eliminated the transparency of the trigger for the imposition of redemption gates and liquidity fees. For example, the proposal could have required fund boards to impose their own policies and procedures around factors they would take into account before redemption gates and fees are imposed that are not transparent to investors. As another alternative, the proposal could have required fund managers to seek regulatory approval confidentially before a fund is able to impose a redemption fee or gate. As yet another alternative, the proposal could have preserved the 30% weekly liquid asset trigger for the potential imposition of a fee or gate, while prohibiting the public disclosure of weekly liquid assets.

These alternatives would increase uncertainty among investors about how close a given money market fund is to imposing a redemption gate or fee in times of severe market stress. Because the first mover advantage is strongest when a fund is on the cusp of imposing a redemption gate or fee (as many money market fund investors may be risk averse and the potential imposition of redemption gates could reduce shareholders' access to liquidity), investor uncertainty about whether a fund is approaching a redemption gate or fee could prevent runs. The alternatives making the imposition of redemption gates or fees discretionary, subject to regulatory approval, or mechanical but triggered by an unobserved level of weekly liquid assets would also increase investor uncertainty but could disrupt run dynamics.

However, these alternatives involve drawbacks. First, while such alternatives could interrupt runs on the funds closest to the imposition of the redemption gate or fee, they could also trigger runs on funds that were less illiquid and less likely to impose redemption gates or fees. For example, a lack of transparency about which funds are close to imposing liquidity fees or gates may lead risk averse investors to redeem from money market funds in general to preserve access to their capital during times of liquidity stress, which can lead to runs on more liquid and less liquid funds alike. Second, requiring money market fund managers to receive permission from the Commission before a redemption gate or fee is imposed may create undue delay during market stress events.[381] Third, these alternatives would not present the same benefits from the proposed approach, which would both reduce run incentives related to the potential imposition of

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[381] *See, e.g.,* SIFMA AMG Comment Letter; Comment Letter of James L Setterlund (Apr. 12, 2021) ("James Setterlund Comment Letter").

redemption gates or fees and, upon net redemptions, require redeeming shareholders to pay for the dilution cost they impose on the fund (under the proposed swing pricing approach discussed below).

2. Alternatives to the Proposed Increases in Liquidity Requirements

a. Alternative Thresholds

The proposal could have included a variety of alternative daily and weekly liquid asset thresholds. To quantify the potential effect of various liquidity thresholds on the probability that money market funds would confront liquidity stress, we modeled stress in publicly offered institutional prime fund portfolios using the distribution of redemptions from 42 institutional prime funds observed during the week of March 16 to 20, 2020 ("stressed week") at various starting levels of daily and weekly liquid assets. The possible new thresholds determined by stress in publicly offered institutional prime fund portfolios were then applied to all money market funds except for the daily liquid asset threshold for tax-free money market funds. We also calculated from the distribution of daily and weekly liquidity asset values what percentage of retail and institutional prime funds combined would be impacted by the various liquidity thresholds. The analysis below estimates the probability that a publicly offered institutional prime fund with a given level of daily and weekly liquid assets would deplete daily liquid assets to meet redemptions (and have to liquidate assets under stressed market conditions) on a given day during the stressed week.[382] Specifically, Figure 14 below plots the probability that a fund will run out of daily liquid assets on a given day of the stressed week. For the

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[382] *See supra* footnote 206.

proposed thresholds of weekly liquid assets at 50% and daily liquid assets at 25%, Figure 14 shows that less than 10% of funds would deplete daily liquid assets and be unable to absorb redemptions out of daily liquid assets on at least one of the five stressed days. By contrast, a threshold of 15% daily liquid assets and 40% weekly liquid assets would approximately double the estimate of funds that would deplete daily liquidity to meet redemptions on at least one of the days of a stressed week (to approximately 20%). As referenced above, the largest weekly and daily redemption during the week of March 16 to 20, 2020, was approximately 55% and 25% respectively. Thus, an approach aimed at eliminating the risk of funds having insufficient liquid assets to absorb redemptions (using redemption data from March 16 to20, 2020) would require funds to hold more than 55% of weekly and at least 25% of daily liquid assets. Lower thresholds increase the probability that some funds may deplete their liquid assets to meet redemptions, but also reduce the adverse impacts described above.

Figure 14: The Probability that A Fund will Run Out of Daily Liquid Assets under Different Minimum Liquidity Thresholds Assuming WLA = DLA + 25%.

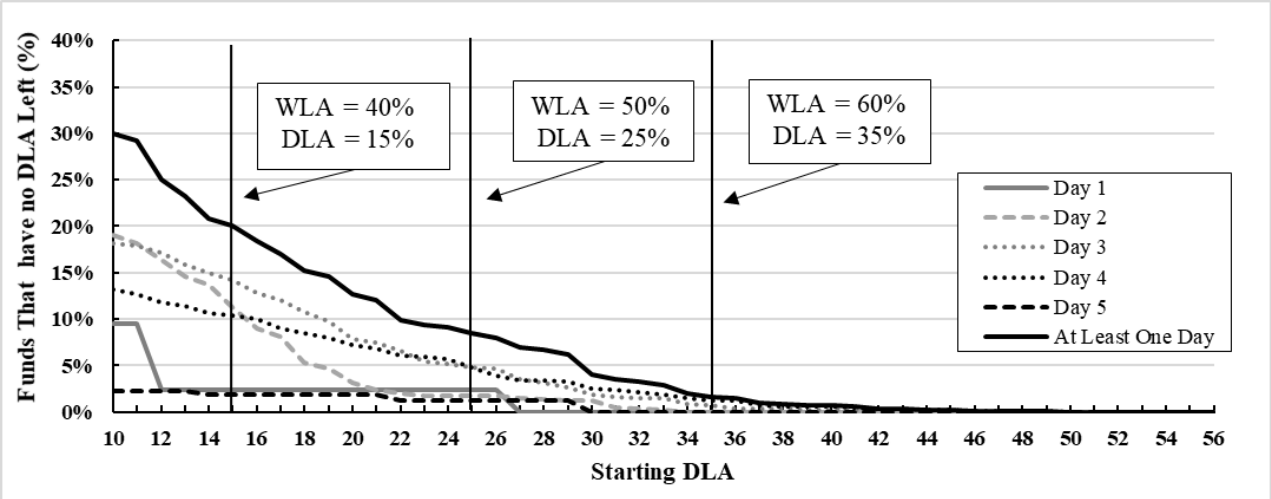

Table 5 quantifies the daily probability that a publicly offered institutional prime fund depletes daily liquid assets to meet redemptions under four scenarios: the current

baseline daily and weekly liquid asset thresholds, thresholds based on the largest daily and weekly redemption during the week of March 16, 2020; pre-COVID weighted mean daily and weekly liquid assets; and post-COVID weighted mean daily and weekly liquid assets. The baseline scenario would require no change for money market funds; the "biggest redemptions" alternative would require approximately 10% of all prime funds (including both institutional and retail prime funds) to increase their daily liquid assets and approximately 75% of all prime funds to increase their weekly liquid assets. The alternative of imposing thresholds at the "pre-COVID" mean would require approximately 25% of all prime funds to increase their daily and 50% of all prime funds to increase their weekly liquid assets. Finally, the alternative that would impose "post-COVID" average liquidity metrics on the industry would require approximately 50% of all prime funds to increase daily and 75% of all prime funds to increase weekly liquid assets.

Table 5: Probability a Publicly Offered Institutional Prime Fund Runs out of Liquidity under the Baseline and 3 Alternative Thresholds

	Liquidity		Probability that a Fund Depletes Available Liquidity on a Given Day					
Model	DLA	WLA	Day 1	Day 2	Day 3	Day 4	Day 5	At Least One Day
Current Threshold	10%	30%	9.5%	21.5%	22.3%	18.6%	3.3%	32.3%
Biggest Redemptions	25%	55%	2.4%	1.4%	3.6%	3.6%	0.0%	6.5%
Pre-COVID (Weighted Mean)	33%	48%	0.0%	0.4%	2.5%	3.9%	1.7%	5.7%
Post-COVID (Weighted Mean)	44%	56%	0.0%	0.0%	0.0%	0.5%	0.0%	0.5%

This analysis includes a number of modeling assumptions. First, institutional prime fund redemptions were historically higher than redemptions out of retail funds, which may bias the analysis to overestimate the probability a retail or private institutional

prime fund runs out of liquidity on a given day. Second, the analysis assumes that assets maturing on a given business day will be available at the end of that day. Third, the analysis assumes no assets are sold into a distressed market and redemptions are absorbed fully into a fund's liquid assets. Fourth, the models do not include government agency securities with a maturity in excess of seven days, and assume Treasury securities have daily liquidity regardless of maturity and can be sold without any loss. Fifth, the analysis assumes that funds would go below the 30% weekly liquid asset threshold, continuing to meet redemptions out of liquid assets, rather than hold on to the weekly liquid assets. As discussed above, the removal of the trigger for the potential imposition of redemption gates may increase the willingness of money market funds to meet redemptions with daily and weekly liquid assets. Sixth, these estimates are based on redemption patterns in March 2020 and the distribution of future redemptions may differ, in part, as a result of the proposed amendments.

Therefore, the above estimates show that alternatives imposing higher minimum daily and weekly liquidity thresholds relative to the proposal would require funds to hold more liquid assets, reducing the risk of fund liquidations or selloffs that may necessitate future government backstops. However, higher minimum liquidity thresholds would require a larger number of money market funds to reallocate their portfolios towards lower yielding investments. In addition, higher liquidity thresholds may lead funds to increase the risk in the remainder of their portfolios to attract investor flows or to keep fund yields from sliding below zero and ensure the viability of the asset class (the latter risk may be more pronounced in very low interest rate environments). Moreover, higher liquidity requirements may increase the availability of funding liquidity through repos to

leveraged market participants, resulting in a higher levels of risk taking in less transparent and less regulated sectors of the financial system. As discussed in more detail in Section III.C.2.a, an analysis of redemptions during market stress of March 2020 shows that, under the proposed liquidity thresholds, the probability that a fund depletes available weekly liquidity on at least one day during the stressed week was only approximately 9%. Thus, the proposed liquidity thresholds may be sufficient to meet redemptions during periods of liquidity stress.

Similarly, lower thresholds relative to the proposal would allow funds to hold less liquid assets, increasing fund liquidity risks. However, lower thresholds would decrease the number of money market funds having to shift portfolios; would reduce the incentives of funds to take larger risks in the less liquid portion of their portfolios; and would reduce the concentration of liquidity in repos that are used by leveraged market participants for funding liquidity. The proposed thresholds reasonably balance these economic costs and benefits.

b. Caps on Fund Holdings of Certain Assets

As an alternative to increasing the minimum daily and weekly liquid asset requirements, the Commission considered proposing caps on money market fund holdings of certain assets, such as commercial paper and certificates of deposit. Commercial paper and certificates of deposit lack an actively traded secondary market and are difficult to value or sell during times of liquidity stress. Limiting money market fund holdings of such instruments may reduce run risk to the degree that the illiquidity of all or a portion of a fund's portfolio may create externalities from redeeming investors borne by investors remaining in the fund, which may incentivize early redemptions.

However, this alternative relies on the assumption that commercial paper and certificates of deposit homogeneously reduce the liquidity of a fund's portfolio by more than other money market fund holdings across maturities. These assumptions may not always hold for different money market funds and over different time horizons. Moreover, to the degree that investors prefer funds that deliver higher returns and money market funds benefit from investor expectations of implicit government backstops during times of liquidity stress, money market funds may react to this alternative by changing the maturity structure of their portfolio and reallocating into other securities with potentially higher liquidity risk. For example, money market funds may substitute short-term commercial paper and certificates of deposit that are classified as daily or weekly liquid assets with longer term commercial paper and certificates of deposit that would not be classified as daily or weekly liquid assets. Finally, because this alternative would involve defining the types of instruments subject to the cap, issuers may be able to create new financial instruments that are similar, and perhaps synthetically identical, to commercial paper and certificates of deposit along risk and return dimensions, but that would not be subject to the caps. The proposed approach, which would increase minimum daily and weekly liquid asset requirements, may reduce liquidity and run risk in money market funds without such potential drawbacks, while ensuring funds have minimum liquidity to meet large redemptions.

As another alternative, the proposal could have replaced the minimum daily and weekly liquid asset thresholds with asset restrictions, such as imposing a minimum threshold for holdings of government securities[383] and repos backed by government

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[383] *See, e.g.,* CCMR Comment Letter.

securities. Under the baseline, such assets are generally categorized as daily liquid assets. Thus, such an approach would have the effect of replacing minimum daily and weekly liquid asset thresholds with a single daily liquid asset threshold, and restricting the types of assets that would qualify as daily liquid assets. This alternative would reduce the liquidity risk of liquid assets held by money market funds, which may help them meet redemptions without transaction costs. However, waves of redemptions as experienced in 2008 and 2020 occur over multiple days, suggesting that money market funds need to have both daily and weekly liquidity to meet redemptions. Moreover, asset restrictions imposing large minimum thresholds for holdings of government securities would decrease not only the risk, but also the yield of money market funds and their attractiveness to investors, reducing the viability of the asset class in low interest rate environments. This approach would also further concentrate money market fund holdings in specific types of assets, which may increase the likelihood of funds selling the same assets to meet redemptions in times of stress.

Finally, under the baseline, funds falling below minimum liquid asset thresholds may not acquire any assets other than daily or weekly liquid assets, respectively, until funds meet those minimum thresholds. The proposal would retain this baseline approach, while increasing the absolute daily and weekly liquid asset thresholds. As an alternative, the proposal could have imposed penalties on funds or fund sponsors upon dropping below the required minimum liquidity threshold. Similarly, the proposal could have imposed a minimum liquidity maintenance requirement, which would require that a money market fund maintain the minimum daily liquid asset and weekly liquid asset thresholds at all times instead of the current requirement to maintain the minimums

immediately after the acquisition of an asset. During the market stress in 2020, funds experiencing large redemptions were reluctant to draw down on weekly liquid assets due to the existence of the threshold for the potential imposition of redemption fees and gates. Such alternatives may have a similar effect of penalizing money market funds for using liquidity when liquidity is most scare, which may make money market funds reluctant to use daily and weekly liquid assets to meet large redemptions during market stress. As a result, money market funds would be incentivized to sell less liquid assets, such as longer maturity commercial paper, into distressed markets, rather than risk penalties and dropping below minimum liquidity maintenance requirements. This may increase transaction costs borne by redeeming investors and may result in money market fund redemptions magnifying liquidity stress in underlying securities markets.

3. Alternative Stress Testing Requirements

As an alternative to the proposed amendments to stress testing requirements, the proposal could have modified weekly liquidity thresholds that funds must use for stress testing. For example, the proposal could have required money market funds to perform stress testing using 15%, 20%, or 30% minimum weekly liquid asset thresholds. As another example, the proposal could have required money market funds to use specific minimum daily and weekly liquid asset thresholds. These alternatives would reduce the discretion of fund managers to identify their own optimal liquid asset thresholds for purposes of stress testing. However, as discussed above, optimum levels of liquidity will vary depending on the type of money market fund, investor concentration, investor composition, and historical distribution of redemption activity under stress, among other factors. The alternatives establishing bright line thresholds for stress testing could reduce

the ability of funds to stress test against the most optimal liquid asset thresholds, which may reduce usability of stress testing results for board and Commission oversight.

4. Alternative Implementations of Swing Pricing

a. Alternative Thresholds for the Application of Market Impact Factors

As described in Section II.B above, the proposal would require funds to apply different swing factor calculations depending on the size of net redemptions. Specifically, if net redemptions are at or below 4% of the fund's NAV divided by the number of pricing periods per day, the swing factor would reflect spread and transaction costs of redemptions. If net redemptions exceed 4% of the fund's NAV divided by the number of pricing periods per day, the swing factor would include not only spread and transaction costs, but also a good faith estimation of market impacts of net redemptions. The proposal could have used a different net redemption threshold for the application of market impact factors. For example, the proposal could have required funds to estimate market impacts if net redemptions exceed 2% or 0.5% divided by the number of pricing periods per day. Based on an analysis in Table 6 below, these alternatives would require funds to estimate market impact factors on 10% or 25% of trading days.[384] Since net flows of these funds are zero at the median, and because there are only 53 institutional funds in our sample, a 10%-ile or 25%-ile alternative threshold would correspond to approximately 5 and 13 funds respectively having outflows greater than the threshold on an average trading day, relative to approximately 3 funds under the proposal.

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384 This analysis is based on historical daily redemptions, but multiple NAV-strike a day funds would apply the threshold multiple times a day under the proposal. Thus, this analysis may under- or over-estimate how frequently a threshold may be applied.

Alternatively, the proposal could have used different redemption thresholds for the swing factor calculation for institutional prime or institutional tax-exempt funds.

Table 6: Daily Flows of Institutional Money Market Funds[385]

Institutional Funds	Average Fund Count	Percentiles						
		5%	10%	25%	50%	75%	90%	95%
Prime Only	37	-3.5%	-1.9%	-0.5%	0.0%	0.6%	2.2%	3.9%
Prime + Tax Exempt	47	-3.7%	-2.1%	-0.5%	0.0%	0.6%	2.3%	4.1%

Higher (lower) net redemption thresholds for the calculation of market impact factors would reduce (increase) the number of pricing periods for which affected money market funds must calculate market impact factors for portfolio securities, reducing (increasing) related costs and operational challenges. However, higher (lower) net redemption thresholds would also reduce (increase) the amount of dilution from redemptions that is recaptured by money market funds and accrue to non-transacting shareholders.

As can be seen from Table 6, the proposed 4% market impact threshold would represent approximately the 5th percentile of daily redemptions. We note that 1st and 5th percent correspond to standard confidence levels in statistical testing, and such confidence levels have been used in other Commission rules.[386] Importantly, when daily

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385 This table reports the results of an analysis of daily flows reported in CraneData on 1,228 days between December 2016 and October 2021. As of September 2021, CraneData covered 87% of the funds and 96% of total assets under management. Flows at the class level were aggregated to the fund level. Flows of feeder funds were aggregated for an approximation of flows for the corresponding master fund.

386 For example, rule 18f-4 requires that an open end fund's value at risk model use a 99% confidence level. The Commission also considered requiring a different confidence level for the value at risk test, such as the 95% or 99% confidence levels. *See, e.g.,* Use of Derivatives by Registered Investment Companies and Business Development Companies,

net redemptions reach 4%, most funds may experience significant market impact if they were to sell a pro-rata share of their portfolio holdings to meet redemptions. Thus, the proposed market impact threshold may appropriately tailor the market impact factor requirement to relatively rare pricing periods of extreme stress.

As another alternative, the proposal could have defined the market impact threshold on a fund-by-fund basis, with reference to a fund's historical flows.[387] For example, each fund could have been required to determine the trading days for which it had its highest flows over a set time period, and set its market impact threshold based on the 5% of trading days with the highest redemptions.[388] While this alternative could allow funds to customize their market impact thresholds to their historical redemption flows, it may reduce the comparability of money market fund returns for investors because swing factors, including the associated market impact factor, influence reported fund returns. Finally, such an alternative may create strategic incentives for fund complexes to open and close funds depending on historical redemption activity. For example, to the degree that the estimation of market impact factors may be burdensome, fund families may

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Investment Company Act Release No. 34084 (Nov. 2, 2020) [85 FR 83162 (Dec. 21, 2020)], at 83250.

387 As another possibility, the proposal we could have allowed funds discretion over which historical period could be chosen. However, because money market funds may not internalize the externalities that their liquidity management imposes on investors in the same asset class, they may not be incentivized to use such discretion in a way that mitigates those externalities. For example, some affected funds may choose a historical time period that results in market impact thresholds that are too high, so that market impact factors are rarely applied. Moreover, because market impact thresholds would influence NAV adjustments and reported returns, the alternative may reduce the comparability of money market fund returns for investors.

388 As another alternative, the rule could have required policies and procedures regarding the choice of a threshold percent level based on historical data.

choose to close funds that experienced high redemptions to avoid the application of market impact factors.

b. Other Alternative Approaches to Market Impact Factors

The proposal could have required institutional funds to apply swing pricing as proposed, but without any requirement to estimate market impact factors. As a related alternative, the proposal could have made the use of market impact factors in swing factor calculations less prescriptive and more principled-based or optional in their entirety. These alternatives would reduce the likelihood and frequency with which affected money market funds would estimate market impacts, which may reduce costs and operational challenges of doing so. However, this may reduce the frequency and size of NAV adjustments and the benefits of swing pricing for non-transacting shareholders.

Increased discretion may allow funds to tailor the calculation of market impact factors to individual portfolio and asset characteristics and prevailing market conditions. This may make swing factors a more precise measure of liquidity costs assessed to redeeming investors. However, because swing factor adjustments influence reported fund returns, greater discretion over the calculation of swing factors may reduce the comparability of money market fund returns for investors. Moreover, because money market funds may not internalize the externalities that their liquidity management practices may impose on investors in the same asset class, they may not be incentivized to use such discretion in a way that mitigates those externalities.

c. Other Alternative Implementations of Swing Pricing

Under the proposal, all institutional prime and institutional tax exempt money-market funds would be required to apply swing pricing during pricing periods with net

redemptions. As an alternative, the proposal could have required a fund to adopt policies and procedures that specify how the fund would determine swing pricing thresholds and swing factors based on a principles based approach, instead of specifying swing factor calculations and thresholds in the rule. As another alternative, the proposal could have made the application of swing pricing optional. The operational costs of implementing swing pricing are immediate and certain, while the benefits are largest in relatively rare times of liquidity stress. Moreover, while money market funds may have reputational incentives to manage liquidity to meet redemptions – and fund sponsors may have chosen to provide sponsor support in the past – institutional money market funds also face disincentives from investor behavior and collective action problems. Specifically, to the degree that institutional investors may use institutional prime and institutional tax-exempt funds for cash management and are sensitive to NAV adjustments, funds may be disincentivized to swing the NAV and recapture the dilution costs for shareholders remaining in the fund.

These alternatives may allow funds not to implement swing pricing or to implement a swing pricing approach with higher swing thresholds and different swing factors (for example, without estimating market impacts). Relative to the proposal, these alternatives may allow funds to better tailor their liquidity management and swing pricing design to investor composition, portfolio and asset characteristics, and prevailing market conditions. This alternative may also avoid operational costs and challenges of swing pricing for some funds. To the degree that the implementation of swing pricing may increase the variability of fund NAVs which reduces the attractiveness of affected funds to investors, these alternatives may reduce potential adverse impacts of swing pricing on

the size of the institutional money market fund sector, the number of institutional money market funds available to investors, and the availability of wholesale funding liquidity in the financial system. However, affected funds may not internalize the externalities that they impose on investors in the same asset classes or the externalities that redeeming investors impose on investors remaining in the fund. In addition, as a result of the collective action problem and disincentives from investor flows, no fund may be incentivized to be the first to implement swing pricing, even if all institutional money market funds recognize the value of charging redeeming investors for the liquidity costs of redemptions. Thus, these alternatives could reduce the likelihood that funds adjust the NAV to capture the dilution costs of net redemptions relative to the proposal because affected funds may not internalize the externalities that they impose on investors in the same asset class. This may reduce or eliminate important benefits of the proposed swing pricing requirement, including protecting non-transacting investors from dilution, reducing first-mover advantage and run risk, and reducing liquidity externalities money market funds may impose on market participants transacting in the same asset classes. In addition, relative to the proposal, these alternatives would increase fund manager discretion over the choice of swing threshold, swing factors, and the application of swing pricing in general. As a result, because the application of swing pricing in general and swing factor adjustments in particular influence reported fund returns, greater discretion over the application of swing pricing may reduce the comparability of money market fund returns for investors.

The proposal could have required institutional funds to adjust the NAV only when net flows exceed a certain swing threshold (either regulatory threshold or threshold

selected by each institutional fund), allowing funds to not adjust the NAV at all when redemptions are low. As described in the economic baseline, money market funds generally hold highly liquid assets, and the proposal would require money market funds to hold even higher levels of daily and weekly liquid assets. As a result, unless both net redemptions and price uncertainty are large, institutional funds may be able to absorb redemptions of transacting investors without imposing large liquidity costs on the remaining investors. Thus, the alternative may allow institutional funds to avoid the costs and operational burdens of calculating spread and transaction costs when net redemptions are low.

However, alternatives that allow funds not to apply swing pricing when net redemptions are below a swing threshold selected by the fund may reduce the expected economic benefits of swing pricing. First, if money market funds are able to select their own swing thresholds, they may choose to set high swing thresholds, reducing the probability that funds would swing the NAV under normal conditions. To the degree that money market fund investors use institutional funds as a very low risk or cash-like investment vehicle and are averse to any fluctuations in the value of their money market fund holdings, these funds may seek to only swing the NAV when redemptions are large enough that they would have required fund liquidation. Second, in 2020 institutional money market fund investors appeared to be highly sensitive to the possibility that a redemption gate or fee would be imposed. To the extent money market investors are able or attempt to forecast when swing pricing would apply or attempt to do so, the existence of a swing threshold may incent these investors to redeem before the swing. Importantly, formulating a swing threshold based on redemptions in a particular pricing period, rather

than based on historical redemptions, is likely to interrupt self-fulfilling run dynamics and eliminate incentives for strategic redemptions around swing thresholds.

The proposal could have allowed funds to calculate the swing factor under the assumption that the fund would absorb redemptions out of liquid assets (the so-called horizontal slice of the fund portfolio) or otherwise provide funds with flexibility to determine the costs based on how they would satisfy redemptions on a given day. Money market funds may manage their liquidity so as to be able to absorb redemptions out of daily and weekly liquid assets, rather than having to sell a pro-rata share of their portfolio holdings. Moreover, the proposal would require money market funds to hold higher levels of daily and weekly liquid assets. Assets that are not daily and weekly liquid assets can be illiquid and generally may need to be held to maturity by the fund. Thus, the alternative would allow funds to avoid swinging the NAV if they are able to, for example, by absorbing redemptions out of more liquid assets. This may reduce uncertainty for investors about the magnitude of the potential NAV adjustment, especially when liquidity is not scarce. However, this alternative would result in redeeming investors not being charged for the true liquidity costs of redemptions, which consist not only of the immediate costs of liquidating fund assets, but also of the cost of leaving the fund more depleted of liquidity and thus more vulnerable to future redemptions.

As another alternative, the proposal could have required that affected money market funds calculate the swing factor based on the fund's best estimate of the liquidity costs of redemptions. Under this alternative, swing factors may more accurately capture the costs of redemptions as funds would be able to tailor swing factors to their liquidity

management strategies (whether that is, for example, liquidating pro-rata shares of portfolio holdings, absorbing redemptions out of daily or weekly liquidity, some combination of the two, or borrowing). However, this alternative would increase fund discretion in the calculation of swing factors, and fund manager incentives may not be aligned with incentives to accurately estimate liquidity costs of redemptions. For example, larger swing factors applied to redemptions benefit the fund and can improve reported fund performance. At the same time, disclosures about historical swing factors can incentivize fund managers to apply excessively low swing factors to attract investors.

The proposal could have required institutional funds to allocate the aggregate dollar cost of trading to gross (as opposed to net) redemptions. Under the alternative, redeeming investors would bear the dilution cost of the redemptions, but not the dilution cost that comes from subscribers being able to buy into the fund at the lower adjusted NAV.[389] This approach could result in redeeming investors paying only the liquidity costs of their orders. However, this alternative may not fully compensate shareholders remaining in the fund for the full dilution cost associated with redemptions.

The proposal also could have required that institutional funds apply swing pricing to both net redemptions and net subscriptions. Relative to the proposal, this alternative would involve greater benefits to non-transacting investors by not only capturing the dilution costs of redemptions, but also the dilution costs arising out of the need to invest net subscriptions. At the same time, waves of subscriptions may be less likely to

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[389] Some regulatory authorities in other countries allow fund managers to choose one of two allocation rules: a rule under which costs are fully borne by subscribing and redeeming investors and a rule under which costs are borne on a pro-rata basis by transacting investors. *See, e.g.,* "Code of Conduct for Asset Managers Using Swing Pricing and Variable Anti-Dilution Levies," 2016, *available at* https://www.afg.asso.fr.

destabilize the money market fund sector in a way that leads to government support. Moreover, the alternative would increase the ongoing operational costs of swing pricing – costs that are expected to be passed along to fund investors that are already earning low or zero net yields in a low interest rate environment. Finally, as discussed in Section II above, applying the proposed swing pricing requirements to fund subscriptions would require these funds to make certain assumptions about how they invest cash from new subscriptions and, in some cases, these assumptions would be inconsistent with requirements in rule 2a-7.

5. Liquidity Fees

As an alternative to the proposed swing pricing requirement, the proposal could have required that institutional prime and institutional tax exempt money market funds establish board-approved procedures to impose liquidity fees that capture liquidity externalities of redemptions. As a related alternative, the proposal could have required institutional prime and tax-exempt money market funds to establish a dynamic liquidity fee framework that uses the same, or similar, parameters as swing pricing for determining when to impose a fee and how to calculate the fee. For instance, the liquidity fee framework could apply a fee any time the fund has net redemptions, and calculate the amount of the fee in the same or similar way as the swing factor under our proposed approach. Alternatively, the liquidity fee framework could be modified in the same or similar manner as one of the swing pricing alternatives discussed above (*e.g.*, the fee could apply only when net redemptions exceed a certain threshold, or the fee calculation method could be based on how the fund expects to satisfy redemptions instead of assuming sale of a vertical slice of the fund's portfolio).

While the PWG Report largely analyzed liquidity fees in the context of the removal of the ties between weekly liquid asset thresholds and the potential imposition of fees and gates, several commenters discussed the above related liquidity fee alternatives (collectively, the "alternative liquidity fee approach"). For example, some commenters recommended allowing the board to impose liquidity fees when it determines that doing so is in the best interest of shareholders, without reference to a specific weekly liquid asset threshold.[390] Some commenters suggested a modified fee framework whereby money market funds would be required to have policies and procedures that provide the fund's board with direction on when to impose fees and how to calculate them, in order to impose fees that reflect the cost of liquidity.[391] Two such commenters suggested that the Commission could identify non-binding factors to consider (*e.g.*, net redemptions; portfolio specific characteristics like liquid assets, investor concentration, and diversity of holdings; and market-based metrics).[392] Under these commenters' suggested approach, funds would be required to disclose the possibility of liquidity fees to investors but could avoid providing information that would allow investors to preemptively redeem before fees apply.

Like the proposed swing pricing approach, the liquidity fee alternative would require funds to recapture the liquidity costs of redemptions to make non-redeeming

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390 *See, e.g.*, JP Morgan Comment Letter; Federated Hermes I Comment Letter; Federated Hermes II Comment Letter; Wells Fargo Comment Letter; ICI I Comment Letter; Western Asset Comment Letter.

391 *See, e.g.*, JP Morgan Comment Letter; ICI I Comment Letter; Western Asset Comment Letter.

392 *See, e.g.,* JP Morgan Comment Letter; ICI I Comment Letter.

investors whole. Thus, many of the economic costs and benefits of the proposed swing pricing approach are also expected with the liquidity fee alternative.

Specifically, like the proposed swing pricing requirement, the liquidity fee alternative may reduce dilution of non-redeeming shareholders in the face of net redemptions. Liquidity fees may reduce the first mover advantage, fund outflows during market stress, and dilution. To the degree that liquidity fees may reduce dilution, they may protect investors that remain in the fund, for instance, during periods of high net redemptions.

Similar to the proposal, the magnitude of liquidity fees applied by affected funds may be quite small since money market funds hold relatively high quality and liquid investments, which may reduce liquidity costs when meeting redemptions. The fact that the alternative may result in relatively small liquidity fees as well as the inability of investors to observe at the time of placing their orders whether the liquidity fee will be applied may interrupt self-fulfilling run dynamics and reduce the likelihood of strategic behavior around liquidity fees. The alternative would address the dilution that can occur when a money market experiences net redemptions and would not result in large liquidity fees unless there is significant net redemption activity leading to large liquidity costs.

Some of the direct and indirect costs of the liquidity fee alternative may be similar to those of the proposed swing pricing requirement. First, a liquidity fee framework in which funds are more likely to apply liquidity fees relative to the baseline may reduce investor demand for institutional prime and institutional tax-exempt money market funds. Reduced investor demand may lead to a decrease in assets under management of affected money market funds, thereby potentially reducing the wholesale funding liquidity they

provide to other market participants. If some institutional money market fund investors are concerned about preserving their invested capital and to the degree that the liquidity fee alternative would require redeeming investors to bear the liquidity risk of their redemptions (a risk they do not currently internalize), the alternative may reduce investor demand for institutional money market funds.

Second, the liquidity fee alternative could impose costs on investors redeeming shares in response to poor fund management or a fund complex's emerging reputational risk. The alternative would assess liquidity fees based on the liquidity costs of effecting redemptions and regardless of the cause for the redemptions. Similar to the proposed swing pricing approach, this could reduce the strength of market discipline of poor fund management.

Third, liquidity fees would require affected funds to pass along liquidity costs of redemptions onto investors. This may decrease the need of funds to provide and investor expectation of sponsor support to cover liquidity costs of redemptions. As a result, like the proposed swing pricing approach, the liquidity fee alternative could magnify the incentives of affected funds to invest in more illiquid assets, may reduce their incentives to manage downside liquidity risk, and may reduce fund incentives to find the cheapest way to source liquidity to meet redemptions. In addition, fund managers may be incentivized to apply liquidity fees frequently and to use their discretion to apply larger liquidity fees because they improve a fund's reported returns and benefit the fund. These factors may be partly mitigated by reputational incentives of fund managers, to the degree that the large and frequent application of liquidity fees may discourage liquidity seeking investors from allocating to such funds. Fourth, the implementation of the alternative

liquidity fee approach would pose some operational challenges and impose related costs on money market funds, third party intermediaries, as well as investors. Similar to the proposed swing pricing approach, the calculation of liquidity fees would require affected money market funds to estimate spread and other costs on days with net redemptions, which may be particularly time consuming and challenging during times of stress. As discussed above, many assets that money market funds hold are not exchange traded and do not have an active secondary market. As a result, estimating spread costs and market impact factors of each component of a money market fund portfolio may be time consuming and difficult, especially during a liquidity freeze.

The liquidity fee alternative also has several important differences from the proposed swing pricing approach, and these differences give rise to different economic benefits, costs, and operational challenges. Specifically, the proposed swing pricing approach would recapture dilution costs of redemptions by adjusting the NAV of the fund as a whole depending on the volume of net redemptions, spread and other costs, and estimates of market impacts. The liquidity fee alternative would, instead, require funds to assess liquidity fees on redeeming investors depending on the same or similar considerations.

As a result, the alternative liquidity fee approach may have several benefits relative to the proposed swing pricing approach. First, liquidity fees could be more transparent than a swing factor adjustment to the fund's NAV, as redeeming investors would more clearly see application of a separate fee. However, while redeeming investors would enjoy greater transparency regarding liquidity fees, other investors would not observe when a liquidity fee is charged. Second, similar to the proposed swing pricing

approach, liquidity fees would mitigate dilution. However, under the proposed swing pricing approach redeemers compensate the fund for the dilution of redemptions as well as the dilution from subscriptions. Thus, redeemers would subsidize subscribers in the fund – an incentive effect that may be particularly important when liquidity is scarce and a fund is facing a wave of redemptions. By contrast, the alternative liquidity fee approach could charge redeeming investors fees that compensate the fund for dilution from redemptions only. While the liquidity fee alternative would not create a positive incentive for subscriptions, it would avoid charging subscribers for more than the liquidity cost of their redemptions. Third, if liquidity fees are to be assessed after the NAV is struck, it could reduce the operational challenges and time pressures of swing pricing and allow affected money market funds to charge the ex post trading costs to redeeming investors. The alternative liquidity fee approach could avoid the potentially adverse impacts of swing pricing on settlement cycles and may be less likely to affect the number of NAV strikes some funds currently offer each day.

Importantly, the alternative liquidity fee approach could give rise to several sets of operational concerns and related costs. In contrast with the proposed swing pricing approach, which is implemented through affected funds adjusting the NAV, the alternative liquidity fee approach would require intermediaries to assess fees to investors. As a result, the alternative liquidity fee approach would require greater involvement by intermediaries in applying the fees and submitting the proceeds to the fund. While intermediaries to non-government money market funds and other service providers should be equipped to impose liquidity fees under the current rule, the alternative liquidity fee approach would likely result in more frequent and varying application of

fees than the current rule contemplates. Requiring intermediaries to apply a fee more frequently, with the potential to change in amount from pricing period-to-pricing period, could introduce additional operational complexity and cost. By consequence, intermediaries may need to develop or modify policies, procedures, and systems designed to apply fees to individual investors and submit liquidity fee proceeds to the fund. In addition, liquidity fees may require more coordination with a fund's service providers than swing pricing, since fees need to be imposed on an investor-by-investor basis by each intermediary, which may be particularly difficult with respect to omnibus accounts. Moreover, funds may not have insight into whether an intermediary is appropriately and fairly applying the liquidity fee to redeeming investors and affected funds may need to develop or modify policies and procedures reasonably designed to ensure intermediaries are appropriately and fairly applying the fees. Finally, due to the costs that the alternative may impose on intermediaries and distribution networks of affected funds, the alternative liquidity fee approach may require money market funds to alter their intermediary distribution contracts, networks, and flow aggregation practices. We lack data to quantify such burdens and costs and solicit comment and data that would inform this analysis.

6. Expanding the Scope of the Floating NAV Requirements

The proposal could have expanded the floating NAV requirements to a broader scope of money market funds. For example, the proposal could have imposed floating NAV requirements on all prime money market funds, but not on tax-exempt funds.[393] As another alternative, the proposal could have imposed floating NAV requirements on all

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[393] *See, e.g.,* PIMCO Comment Letter; Vanguard Comment Letter.

prime and tax-exempt money market funds.[394] Finally, the proposal could have required that all money market funds float their NAVs.[395]

Expanding the scope of the floating NAV requirements beyond institutional prime and institutional tax-exempt funds would involve several main benefits. First, a floating NAV may increase transparency about the risk of money market fund investments. Portfolios of money market funds give rise to liquidity, interest rate, and credit risks – risks that are relatively low under normal market conditions, but may be magnified during market stress. To the degree that investors in stable NAV funds are currently treating them as if they were holding U.S. dollars due to a lack of transparency about risks of such funds, expanding the scope of the floating NAV requirements may enhance investor protections and enable investors to make more informed investment decisions. Some commenters stated that expanding a floating NAV requirement could enhance transparency about the underlying performance of credit-sensitive assets within prime money market funds.[396] Another commenter indicated that a floating NAV provides investors with more accurate information about the fund's financial condition, enhances transparency about the risks of the fund's portfolio holdings, and is consistent with the valuation of investment funds generally.[397] Yet another commenter suggested that a floating NAV can provide more flexibility and resilience than a stable NAV, but tax-

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394 *See, e.g.,* Schwab Comment Letter; Northern Trust Comment Letter.

395 *See, e.g.,* Comment Letter of the CFA Institute (Apr. 14, 2021) ("CFA Comment Letter"); Comment Letter of Better Markets, Inc. (Apr. 12, 2021) ("Better Markets Comment Letter"); Systemic Risk Council Comment Letter; Comment Letter of Professor David Zaring, The Wharton School (Apr. 2, 2021) ("Prof. Zaring Comment Letter").

396 *See, e.g.,* PIMCO Comment Letter.

397 *See, e.g.,* CFA Comment Letter.

exempt money market funds could continue to support a stable NAV as long as the Commission tightened portfolio restrictions on such funds.[398]

Second, these alternatives could reduce run risk in affected stable NAV funds. Specifically, floating the NAV may reduce the first mover advantage in redemptions, partly mitigating investor incentives to run. Some commenters supported the benefits of a floating NAV requirement in discouraging herd redemption behavior across all prime money market funds,[399] and suggested that a floating NAV may reduce the advantages of sophisticated investors that redeem quickly under stressed conditions.[400] We are also aware of research that examined fund outflows outside the U.S. and found reduced outflows in floating NAV funds.[401]

As a caveat, to the degree that heavy redemptions in floating NAV funds reduce available liquidity and credit quality of remaining fund holdings, investors may still be incentivized to redeem early, albeit at a NAV below $1. In this sense, floating the NAV may reduce, but not eliminate incentives for early redemptions during market selloffs that are present in securities markets and open-end funds more generally. Some commenters stated that floating the NAV of stable NAV funds would do little to reduce redemption activity during periods of market stress, particularly given that institutional prime funds

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398 *Id.* (noting that tax-exempt money market funds invest in entities that often have the taxing power to support their debt, may not be able to discharge their debt obligations through bankruptcy, and issue notes that offer contractual liquidity).

399 *See, e.g.,* PIMCO Comment Letter.

400 *See, e.g.,* Better Markets Comment Letter.

401 *See, e.g.,* Witmer, Jonathan. 2016. "Does the Buck Stop Here? A Comparison of Withdrawals from Money Market Mutual Funds with Floating and Constant Share Prices." Journal of Banking and Finance 66: 126-142.

experienced heavy redemptions in March 2020 despite having a floating NAV.[402] Another commenter opposed a floating NAV requirement, suggesting that it likely would not address run risk but may give the appearance of discouraging runs.[403] Some academic research[404] shows that floating the NAV in the US has not eliminated run risk in the redemption decisions of investors in institutional funds. However, that research does not distinguish between causal impacts of a floating NAV requirement and investor selection effects. Specifically, the paper does not rule out the possibility that investors that need liquidity the most invest in floating NAV and multi-strike funds and that such investors are also most likely to redeem in times of liquidity stress. Yet another paper models the problem theoretically and finds that a stable NAV can reduce risk taking by money market funds in low interest rate environments because it can create default risk and the need to have a buffer of safe assets, reducing risky investment when risk-free rates fall.[405]

Third, floating the NAV of a broader range of money market funds could more accurately capture their role in asset transformation and corresponding risks. As quantified in Section III.B.3.a, retail prime and retail tax exempt funds have some risky

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402 SIFMA AMG Comment Letter; ICI Comment Letter I; Western Asset Comment Letter; Fidelity Comment Letter; Federated Hermes Comment Letter I; JP Morgan Comment Letter; BlackRock Comment Letter; Americans for Financial Reform Comment Letter; Comment Letter of Madison E. Grady (Apr. 14, 2021) ("Madison Grady Comment Letter").

403 Comment Letter of Professor Jeffrey N. Gordon, Columbia Law School (Feb. 26, 2021) (noting that money market funds should not be treated similarly to other mutual funds because MMF investors typically redeem en masse during periods of liquidity stress and money market fund investments tend to be concentrated in the credit issuances of financial firms).

404 *See,* Casavecchia, Lorenzo, Georgina Ge, Wei Li, and Ashish Tiwari. 2021. "Prime Time for Prime Funds: Floating NAV, Intraday Redemptions and Liquidity Risk During Crises." Working paper.

405 *See* La Spada, Gabriele. 2018. "Competition, Reach for Yield, and Money Market Funds." Journal of Financial Economics 129(1): 87-110.

portfolio holdings. Specifically, some of the underlying holdings of retail money market funds are similar to those of institutional prime funds, which experienced significant stress in 2020. One commenter[406] supported floating the NAV for government money market funds, citing redemption pressure and run risks associated with U.S. debt ceiling negotiations and potential credit rating downgrades of U.S. Government securities and suggesting that all money market fund investors should be aware that all such funds can, and do, fluctuate in value. Expanding the floating NAV requirements to all money market funds would result in a consistent regulatory treatment of money market funds. Moreover, it may enhance the allocative efficiency in the money market fund industry and may enhance competition between floating NAV and stable NAV funds. For example, some commenters indicated that the disparate treatment of floating NAV and stable NAV funds led to a significant migration of institutional investments from prime and tax-exempt money market funds to government money market funds.[407] An alternative that would expand the scope of the floating NAV requirement to all money market funds may lead to outflows from government money market funds back into prime and tax-exempt sectors.

Floating NAV alternatives would give rise to three groups of costs. First, such alternatives may reduce the attractiveness of affected money market funds to investors and may result in significant reductions in the size of the money market fund sector.[408]

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406 *See, e.g.,* Better Markets Comment Letter.

407 *See, e.g.,* CFA Comment Letter.

408 *See, e.g.,* SIFMA AMG Comment Letter; Western Asset Comment Letter; Federated Hermes Comment Letter I (noting that some investors may choose to move assets to banks or to less regulated and less transparent products such as private funds).

The Commission understands that retail investors use money market funds as a safe, cash-like product. To that extent, floating the NAV of some or all stable NAV funds may lead investors of stable NAV funds to reallocate capital into cash accounts subject to deposit insurance.[409] In a somewhat parallel setting, in the aftermath of the 2016 implementation of the floating NAV requirement for institutional prime and institutional tax-exempt funds, approximately $1 trillion left newly floating NAV funds and flowed into government money market funds, matched by corresponding outflows from floating NAV products. About 90% of these outflows came from the larger institutional prime funds, while the remaining 10% came from the smaller institutional tax-exempt funds. Thus, many investors may flee to safety in times of stress and may be unlikely to remain invested in money market funds affected by the floating NAV alternative. Some commenters stated that a floating NAV requirement would, indeed, diminish the appeal of money market funds relative to other cash management vehicles.[410] Importantly, such reallocation effects are not necessarily suboptimal per se, if it is a result of greater investor awareness of the risks of money market fund investments.

Second, if the floating NAV alternatives resulted in a decrease in the size of the money market fund industry, they would adversely impact the availability of wholesale funding liquidity and access to capital for issuers. Prior research suggests that increasingly constrained balance sheets of regulated financial institutions after the

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409 *See, e.g.,* Schwab Comment Letter.

410 *See, e.g.,* SIFMA AMG Comment Letter; ICI Comment Letter I; Federated Hermes Comment Letter I; JP Morgan Comment Letter; Comment Letter of the National Association of State Treasurers and Government Finance Officers Association (Apr. 12, 2021) ("NAST and GFOA Comment Letter"); Comment Letter of the State Financial Officers Foundation and Ron Crane (Apr. 26, 2021) ("SFOF and Crane Comment Letter"); Madison Grady Comment Letter.

financial crisis reduced both their involvement in arbitrage activities and their willingness to provide leverage to other arbitrageurs, leading to growing mispricings across markets.[411] Given this baseline, a reduction of wholesale funding liquidity available to arbitrageurs may magnify mispricings across securities markets. However, under the alternative, wholesale funding costs would more accurately reflect true costs of funding liquidity, since the alternative would reduce the distortions arising out of implicit government guarantees of money market funds. Similarly, a reduction in the size of affected money market funds or the money market fund industry as a whole would increase the costs of or decrease access to capital for issuers in short-term funding markets.[412] However, the current reliance of some issuers on short-term financing from money market funds that is susceptible to refinancing and run risks may be sustainable, in part, due to perceived government backstops of money market funds and lack of transparency to investors about the risks inherent in money market fund investments. While the alternative would impose potentially significant costs on issuers, it would do so by reducing cross-subsidization of money market funds and increasing transparency about risks of money market fund investments.

Third, the floating NAV alternative would involve significant operational, accounting, and tax challenges. Specifically, the Commission is concerned that switching retail funds from stable NAV to floating NAV may create accounting and tax complexities

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411 *See, e.g.,* Boyarchenko, Nina, Thomas Eisenbach, Pooja Gupta, Or Shachar, and Peter Van Tassel. 2020. "Bank-Intermediated Arbitrage." Federal Reserve Bank of New York Staff Report No. 854.

412 SIFMA AMG Comment Letter; ICI I; Federated Hermes Comment Letter I; JP Morgan Comment Letter; NAST and GFOA Comment Letter (describing increased borrowing costs for municipalities upon the implementation of floating NAVs for institutional funds); SFOF and Crane Comment Letter; Madison Grady Comment Letter.

for some retail investors.[413] A floating NAV requirement may be incompatible with popular cash management tools such as check-writing and wire transfers that are currently offered for many stable NAV money market fund accounts.[414] In addition, a floating NAV alternative would involve many of the same implementation burdens on broker-dealers, retirement plan administrators, and other intermediaries[415] as the proposed amendment requiring that stable NAV funds determine that their intermediaries are capable of transacting at non-stable prices.

Importantly, the floating NAV alternative would not address three key market failures in money market funds. First, floating the NAV may reduce, but does not eliminate, the first mover advantage and corresponding run incentives during selloffs. As discussed above, floating NAV funds experienced a significant amount of redemptions in 2020. During past episodes of stress in money market funds (in 2008 and 2020), retail investor redemptions were far more limited than redemptions out of institutional prime money market funds. Moreover, as referenced above, in 2020 capital flowed into government money market funds as investors fled to safety. Future redemption dynamics in stable NAV funds may evolve as a function of investor type, risk tolerance, investment horizons, liquidity needs, and sophistication, among others. However, modest historical redemptions out of stable NAV funds may suggest that they are currently less susceptible to run risk, reducing the value of floating NAV alternatives for such funds.

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413 *See, e.g.,* ICI Comment Letter I; Federated Hermes Comment Letter I; Madison Grady Comment Letter; Comment Letter of Carter Ledyard Milburn (Apr. 15, 2021).

414 *See, e.g.,* ICI Comment Letter I; Madison Grady Comment Letter.

415 *See, e.g.,* SIFMA AMG Comment Letter; ICI Comment Letter I; Federated Hermes Comment Letter I; Western Asset Comment Letter; JP Morgan Comment Letter; Dreyfus Comment Letter; BlackRock Comment Letter.

Second, floating NAV alternatives would not alter economic incentives of stable NAV fund managers to reduce risk taking. For example, floating the NAV would not incentivize stable NAV fund managers to hold enough liquid assets and to have low enough credit risk to meet redemptions in times of stress; nor would it constrain portfolio composition. Insofar as investor flows remain sensitive to fund performance, and fund managers are compensated for performance, money market funds may have incentives to take greater risks to deliver higher returns. The proposed liquidity requirement amendments, while not altering incentives of fund managers, may meaningfully constrain money market fund portfolio composition and risk taking.

Third, floating NAV alternatives may not influence the liquidity risk of affected money market funds as directly as the proposal. At their core, money market funds transform capital subject to daily redemptions into short-term debt instruments that carry liquidity and credit risk. Some research suggests that floating the NAV would not reduce, and may even increase risk taking incentives.[416] However, as can be seen from Section III.B.3.b, the distribution of market NAV fluctuations among prime money market funds decreased around the compliance date with the 2014 amendments. In contrast, the proposed increases to daily and weekly liquidity requirements may directly reduce the amount of liquidity risk in money market fund portfolios.

7. Countercyclical Weekly Liquid Asset Requirement

The PWG Report raised an alternative countercyclical weekly liquid asset requirement approach. For instance, during periods of market stress, the minimum

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416 *See, e.g.,* La Spada, Gabriele. 2018. "Competition, Reach for Yield, and Money Market Funds." Journal of Financial Economics 129(1): 87-110.

weekly liquid asset threshold could decrease, for example, by 50%. The proposal could have specified the definitions of market stress that would trigger a change in weekly liquid asset thresholds. Alternatively, the proposal could have specified that decreases in weekly liquid asset thresholds would be triggered by Commission administrative order or notice.[417]

Such alternatives could help clarify that money market funds' liquidity buffers are meant for use in times of stress and may provide assurance to investors that funds may utilize their liquidity reserves to absorb redemptions.[418] To the degree that these alternatives may increase the willingness of affected funds to absorb redemptions out of daily or weekly liquidity during times of stress, the alternatives may reduce liquidity costs borne by fund investors and may reduce incentives to redeem.

However, an analysis of investor redemptions out of institutional prime and institutional tax exempt funds during market stress of 2020 points to a high level of sensitivity of redemptions to threshold effects. Thus, any decrease in regulatory minimum thresholds may create investor concerns about liquidity stress in money market funds and trigger an increase in investor redemptions. Moreover, under the current baseline, rule 2a-7 does not prohibit a fund from operating with weekly liquid assets below the regulatory minimum. The proposed elimination of the tie between liquidity thresholds and fees and

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417 *See* ABA Comment Letter.

418 *See* BlackRock Comment Letter; ABA Comment Letter; mCD IP Comment Letter; CFA Comment Letter.

gates under rule 2a-7 may more efficiently incentivize funds to use their liquidity buffers in times of stress, while removing threshold effects around weekly liquidity levels.[419]

Moreover, alternatives involving Commission orders or notices triggering decreases in weekly liquidity thresholds may impede or slow fund liquidity management decisions during times of market stress. In addition, Commission action to reduce liquidity requirements may be read as a signal of broader stress in money market funds and may accelerate investor redemptions under stress.[420]

8. Alternatives to the Amendments Related to Potential Negative Interest Rates

As an alternative to the proposed amendments related to potential negative interest rates, the proposal could have allowed stable NAV funds to use the reverse distribution mechanism in lieu of requiring stable NAV funds to float the NAV in the event of persistent negative interest rates. This alternative would be consistent with the practice of European money market funds, which used a reverse distribution mechanism for a period of time, before the European Commission determined this approach was not consistent with the 2016 EU money market fund regulations. As another alternative, the

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419 *See* JP Morgan Comment Letter (expressing the view that the introduction of fees and gates in the 2014 reform effectively nullified the intent of the 2010 reform's requirement that money market funds maintain a 30% WLA minimum in order to ensure that a fund could meet shareholder redemptions even when market conditions have deteriorated).

420 *See* Western Asset Comment Letter; Fidelity Comment Letter; JP Morgan Comment Letter; SIFMA AMG Comment Letter (noting that "[t]o the extent the Commission does consider countercyclical weekly liquid asset requirements, SIFMA AMG urges the Commission to further consider how the Commission could construct a countercyclical requirement that would apply on an automatic basis, versus requiring Commission action").

proposal could have mandated that in the event of persistent negative interest rates, all stable NAV funds must use the reverse distribution mechanism.

Alternatives allowing (requiring) stable NAV funds to use a reverse distribution mechanism in the event of negative fund yields would reduce (eliminate) NAV fluctuations in a negative yield environment, which may enhance (preserve) the use of stable NAV funds for sweep accounting. Such alternatives may, thus, increase demand for government and retail money market funds, with positive effects on the availability of wholesale funding liquidity and capital formation. The alternatives would avoid disruptions to distribution networks of stable NAV funds if some of their intermediaries would be unable or unwilling to upgrade systems to process transactions at a floating NAV.

However, such alternatives may decrease price transparency to investors in stable NAV funds and may give rise to investor protection concerns. As discussed in Section II, under a reverse distribution mechanism, investors would observe a stable share price but a declining number of shares for their investment when a fund generates a negative gross yield. This may decrease the transparency and salience of negative fund yields to investors, particularly for less sophisticated retail investors. One commenter indicated that investors may observe a stable share price and assume that their investment in a fund with a stable share price is holding its value while the investment is actually losing value over time.[421] While disclosures could partly mitigate such informational asymmetries, we

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421 Jose Joseph Comment Letter (suggesting that if money market funds generate negative yields, "[u]nilaterally redeeming the shares[] by reverse distribution is like cheating" and that funds should instead inform shareholder and move to a floating NAV to be fair and transparent).

believe that reverse distribution mechanisms may mislead or confuse investors about the value and performance of their investments, particularly for retail money market fund investors.

9. Alternatives to the Amendments Related to Processing Orders under Floating NAV Conditions for All Intermediaries

The proposal also could have not expanded existing requirements related to processing orders under floating NAV conditions to all intermediaries. Under this approach, stable NAV money market funds would not be required to keep records identifying which intermediaries they were able to identify as being able to process orders at a floating NAV. This alternative would avoid the costs of the proposed amendments related to intermediaries being required to upgrade systems if they are unable to process transactions in stable NAV funds at a floating NAV. However, beyond negative interest rates, there are other scenarios in which stable NAV money market funds may need to be able to float their NAVs, such as if they break the buck due to credit events or other market stress. Thus, this alternative could result in some intermediaries of stable NAV money market funds being unable to process certain transactions during severe stress, which could adversely affect the ability of investors to access their investments and further magnify stress in money market funds and short-term funding markets. Therefore, expanding the floating NAV processing conditions to all intermediaries, as proposed, would be appropriate even if we were to permit or require stable NAV funds to use a reverse distribution method.

10. Alternatives to the Amendments Related to WAL/WAM Calculation

The proposal would amend rule 2a-7 to require that WAM and WAL are calculated based on the percentage of each security's market value in the portfolio. The Commission could have instead proposed to base the calculation on amortized cost of each portfolio security. Similar to the proposal, such an alternative would also enhance consistency and comparability of disclosures by money market funds in data reported to the Commission and provided on fund websites. Thus, the alternative would achieve the same benefits as the proposal in terms of enhancing transparency for investors and enhancing the ability of the Commission to assess the risk of various money market funds and increasing allocative efficiency.

However, relative to the proposal, the alternative may give rise to higher compliance costs. While all money market funds are required to determine the market values of portfolio holdings, no such requirements exist for amortized costs of portfolio securities. Thus, funds that do not currently estimate amortized costs would be required to do so for the WAL and WAM calculation. Moreover, amortized cost may be a poor proxy of a security's value if market conditions change drastically due to, for example, liquidity or credit stress, and if the fund is unable to hold the security until maturity. This may distort WAL and WAM calculations during market dislocations – when comparable and accurate information about fund risks may be most important for investment decisions.

11. Sponsor Support

Dilution occurs because shareholders remaining in the fund effectively buy back shares at NAV from redeeming investors. The assets underlying those shares are eventually sold at a price that may differ from that NAV for the reasons described in the

economic baseline, causing dilution in some cases. The proposal could have required money market fund sponsors to provide explicit sponsor support to cover dilution costs. For stable NAV funds, this alternative would mean purchasing assets so that their value remains $1 per share. For floating NAV funds, this would require a sponsor to pay redeeming shareholders the NAV, transfer the corresponding pro-rata assets to their balance sheet, sell the assets, and cover the difference between the value of those assets and the redemption NAV from their own capital.

The proposal only considers the mitigation of one of the factors that contributes to dilution (trading costs), but does not significantly change current incentives around the liquidity mismatch between money market fund assets and liabilities. In contrast, this alternative may significantly change incentives around the liquidity mismatch between money market fund assets and liabilities. Specifically, this alternative would give fund sponsors a more direct incentive to manage the amount of dilution risk they impose on a fund via their choice of fund investments.

Directly exposing the sponsor, rather than money market fund investors, to the dilution risk associated with the difference between NAV and the ultimate liquidation value of the fund's underlying securities could have several benefits. First, money market funds would have a stronger incentive to overcome any operational impediments that expose them to unnecessary risk. For example, funds might be incentivized to invest in developing more accurate valuation models of opaque assets so they can hedge their exposure to the difference between NAV and asset liquidation prices. Second, the amount of required operating capital to process redemptions/subscriptions would be higher for money market funds that held relatively less liquid securities, and money market funds

would have to charge higher fees to raise that capital. Such fees would effectively externalize the costs of investing in less liquid assets via money market funds. As those fees increase, money market funds that hold less liquid assets might become less desirable to investors, and money market fund investors might select into other structures, such as closed-end funds, that are a more natural fit with illiquid assets. These benefits may be reduced to the degree that the sponsor support requirement may incentivize money market funds to take additional risks to recoup the sponsor's costs or may incentivize fund managers to increase risk taking due to the backstop of the sponsor support.[422]

Such an alternative approach may significantly disrupt the money market fund industry. First, it would make sponsoring money market funds a more capital intensive business, which might reduce or create barriers to entry into the money market fund industry, disadvantage smaller funds and fund complexes, and increase concentration.[423] Second, it could cause fund sponsors to opt, instead, for other open-end funds, ETFs, or closed-end funds as vehicles for certain less liquid assets. Third, it may reduce the attractiveness of money market funds to investors as it may reduce fund yields and the number of available money market funds.[424] The alternative, may thus, significantly reduce the number of fund sponsors offering money market funds and the number of money market funds available to investors. Importantly, we recognize that some aspects

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422 *See* JP Morgan Comment Letter; ICI Comment Letter I.

423 *See, e.g.*, Western Asset Comment Letter; Fidelity Comment Letter; State Street Comment Letter; BlackRock Comment Letter; JP Morgan Comment Letter (stating that bank-affiliated sponsors would likely be required to hold capital against any potential support obligation).

424 *See* Western Asset Comment Letter; Federated Hermes I Comment Letter.

of the proposal – such as the proposed swing pricing amendments, the proposed increases to liquidity requirements, and the proposed amendments related to negative interest rates – may reduce the attractiveness of affected money market funds for investors and the size of the money market fund sector. These adverse effects may flow through to institutions, such as banks, and to leveraged participants, such hedge funds, that rely on banks for liquidity and capital formation.

The effects of the sponsor support alternative on investors may be mixed. On the one hand, sponsor support may increase the ability of investors to redeem their shares in full without bearing liquidity costs. On the other hand, sponsor support could lead some investors to believe that their investments carry no risk and may make investors less discerning in their choice of money market fund allocations.[425] Moreover, sponsor support reduces investor risk only to the degree that fund sponsors are well capitalized and easily capable of providing sponsor support. Uncertainty surrounding the ability of the sponsor to provide support to the money market fund could trigger a wave of shareholder redemptions, particularly during stressed conditions.[426]

12. Disclosures

a. Eliminating Website Disclosure of Fund Liquidity Levels

The proposal could have eliminated the requirement that money market funds post their daily and weekly liquid assets on their websites. As discussed above, the Commission understands that the public nature of fund liquid asset disclosures, in

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425 *See* Federated Hermes I Comment Letter; ICI I Comment Letter; Carter, Ledyard, Milburn Comment Letter.

426 Federated Hermes I Comment Letter.

combination with the regulatory thresholds for the potential imposition of redemption fees and gates, may have triggered a run on institutional money market funds and made other funds reluctant to use liquid assets to absorb redemptions if it meant approaching or falling below regulatory thresholds. The proposal would partly mitigate run incentives surrounding disclosures of daily liquid assets, by removing the tie between liquid assets and the potential imposition of fees and gates, but also increasing minimum daily and weekly liquidity requirements and imposing a requirement to promptly report liquidity threshold events. Moreover, money market funds play an important asset transformation role and inherently carry liquidity risks. The Commission believes that public disclosures of money market fund liquidity convey important information to investors about the liquidity risks of their investments.

b. Alternatives to the Proposed Form N-MFP Amendments

We could have proposed Form N-MFP amendments without including some or all of the proposed new collections of information. For example, the proposal could have amended Form N-MFP without requiring new disclosures related to repurchase agreement transactions or related to investor concentration and composition. While these alternatives may have reduced compliance burdens compared to the proposal, compliance with disclosure requirements may involve significant fixed costs. As a result, the elimination of one or several items from the proposed amendments may not lead to a proportional reduction in compliance burdens. Moreover, information about repurchase agreement transactions, fund liquidity management, investor concentration and composition, and sales of securities into the market would provide important benefits of transparency for investors and would enhance Commission oversight.

The proposal would require the disclosure of every swing factor applied in the reporting period by date. Alternatively, the proposal could have required the disclosure of less information about when the fund swings the NAV. For example, the proposal could have required disclosure of the lowest, median, and highest swing factor a fund applied in a given reporting period. Alternatives proposing less information about fund swing pricing practices and eliminating current website disclosures of daily fund flows would reduce the scope of the economic benefits and costs of the proposed amendments described above. To the degree that disclosures of swing factors may make swing factors more salient to investors and may lead funds to compete on swing factors, alternatives proposing less disclosure about swing factors can reduce those effects. Moreover, to the degree that granular disclosure about historical swing factors can incentivize or inform strategic redemption behavior, alternatives involving less disclosure about swing factors can reduce those effects.

c. Alternatives to the Proposed Form N-CR Amendments

The proposal could have required money market funds to make notices concerning liquidity threshold events public with a delay (*e.g.*, 15, 30, or 60 days). The proposal alternatively could have required that some or all information about the liquidity threshold event be kept confidential upon filing. Under the baseline, such funds are required to report daily and weekly liquid assets daily on fund websites. To the degree that the publication of such notices gives investors additional information about fund liquidity management and can trigger investor redemptions out of funds with low levels of weekly and daily liquid assets, the alternatives may reduce the risk of redemptions around liquidity thresholds and the increase the willingness of funds to absorb redemptions out of their weekly liquidity relative to the proposal. However, relative to

the proposal, the alternatives would reduce the availability of a central source that investors could use to identify when money market funds fall more than 50% below liquidity requirements. The delayed reporting alternative also would reduce the amount of information available to investors surrounding the context for the liquidity threshold events as notices are likely to clarify reasons for the threshold event. Thus, the alternative would reduce transparency for investors around liquidity management of affected money market funds, which may reduce allocative efficiency. Notably, a delay in publication of the notices may increase staleness of the information in the notices.

In addition, the proposal could have amended Form N-CR to include some of the proposed new collections of information on Form N-MFP. For example, the proposal could have amended Form N-CR to include information about sales of securities into the market of prime funds that exceed a particular size. This alternative would enhance the timeliness of such reporting. Thus, the alternative may enhance transparency about fund liquidity management for investors, which may enhance informational and allocative efficiency and Commission oversight. However, the alternative would increase direct reporting burdens related to the filing of Form N-CR – costs that may flow through in part or in full to end investors in the form of fund expenses. Moreover, timely reporting of prime funds' sales of portfolio securities may signal fund liquidity stress to investors even where funds may be able to maintain their daily and weekly liquidity levels. This may influence investor decisions to redeem out of reporting funds; thus, relative to the proposal, the alternative may place heavier redemption pressure on reporting funds.

With respect to the proposed structured data requirement for Form N-CR, the proposal could have required Form N-CR to be submitted in the Inline eXtensible

Business Reporting Language (Inline XBRL), rather than the proposed N-CR-specific XML. As with N-CR-specific XML, Inline XBRL is a structured data language and would provide similar benefits to investors (*e.g.*, facilitating analysis of the event-related disclosures reported by money market funds on Form N-CR and thereby providing more transparency into potential risks associated with money market funds). From a filer compliance perspective, money market funds have experience complying with Inline XBRL compliance requirements, because they are required to tag prospectus risk/return summary disclosures on Form N-1A in Inline XBRL. This existing experience would counter the incremental implementation cost of complying with an Inline XBRL requirement under the alternative.[427]

However, unlike N-CR-specific XML, which the Commission would create specifically for Form N-CR submissions on EDGAR, Inline XBRL is an existing data language that is maintained by a public standards setting body, and it is used for different disclosures across various Commission filings (and for uses outside of regulatory disclosures). Due to the number of individual transactions that might be reported as Form N-CR data and the constrained nature of the content of Form N-CR and the absence of a clear need for the N-CR disclosures to be used outside the Form N-CR context, the alternative to include an Inline XBRL requirement might result in formatting for human readability of tabular data within a web browser that provides no additional analytical insight. This would likely include more complexity than is called for by the disclosures on Form N-CR, thus potentially making the disclosures more burdensome to use for

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[427] For example, registered open-end management investment companies (including money market funds) must tag their Form N-1A prospectus risk/return summary disclosures in Inline XBRL. *See* Instruction C.3.g to Form N-1A; 17 CFR 232.405(b)(2).

analysis and possibly muting the benefits to investors of a structured data requirement, compared to the proposed N-CR-specific XML requirement.

d. Alternatives to the Proposed Amendments to Form N-1A

The proposal could have required more information relative to the proposal about how affected money market funds implement swing pricing. Alternatively, the proposal could have required the disclosure of less information than proposed about when the fund swings the NAV. Expanding disclosure requirements relative to the proposal would help better inform investors about swing pricing practices of different funds and could help liquidity seeking investors make more efficient capital allocation decisions. Similarly, alternatives proposing less information about fund swing pricing practices and eliminating current website disclosures of daily fund flows would reduce the scope of the economic benefits and costs of the proposed amendments described above.

The proposed disclosures may inform investors about swing pricing that may be applied to their redemptions, while not being so granular as to incentivize strategic investor behavior. Importantly, the proposed swing pricing approach would involve fewer incentives for strategic behavior and runs, compared to the baseline redemption gates with a transparent liquidity trigger for two reasons. First, under the proposed swing pricing approach, strategic early redemptions are more likely to cause the fund to swing. Second, swinging the NAV benefits investors staying in the fund by recapturing the dilution costs that redeeming investors impose on the fund.

13. Capital Buffers

The PWG Report also discussed the alternative capital buffer requirement. For example, the proposal could have required that money market funds maintain a NAV buffer, or a specified amount of additional assets available to absorb daily fluctuations in the value of the fund's portfolio securities.[428] For example, one option would require that stable NAV money market funds have a risk-based NAV buffer of up to 1% to absorb day-to-day fluctuations in the value of the funds' portfolio securities. Floating NAV money market funds could reserve their NAV buffers to absorb fund losses under rare circumstances only, such as when a fund suffers a large drop in NAV or is closed. The required minimum size of a fund's NAV buffer could be determined based on the composition of the money market fund's portfolio, with specified buffer requirements for daily liquid assets, other weekly liquid assets, and all other assets.

Some commenters on the PWG Report expressed support of capital buffers, indicating that such a provision could provide some protection from losses, including the default of a major asset or certain market fluctuations, but would not by itself prevent all investor runs.[429] Another commenter stated that a capital buffer could enable money market funds to sustain broad losses without resorting to fire sales that further depress share values, and would also increase investor confidence about a fund's ability to

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428 *See, e.g.,* Lewis, Craig. April 6, 2015. "Money Market Fund Capital Buffers," *available at* https://papers.ssrn.com/sol3/papers.cfm?abstract_id=2687687; *See also* Hanson, Samuel G., David S. Scharfstein, and Adi Sunderam. May 2014. "An Evaluation of Money Market Fund Reform Proposals," *available at* https://www.imf.org/external/np/seminars/eng/2013/mmi/pdf/Scharfstein-Hanson-Sunderam.pdf.

429 *See, e.g.,* CFA Comment Letter; Systemic Risk Council Comment Letter.

withstand periods of market turmoil.[430] Similarly, some commenters supported capital buffers as a source of strength if redemptions or declining asset values began to affect a fund.[431] One commenter stated that a capital buffer is preferable to sponsor support or potential government backstops because investors would understand the scale and operation of the buffer in advance of its deployment.[432] One commenter stated that a capital buffer should be required if money market funds are provided access to Federal Reserve liquidity backstops.[433]

The alternative may have four primary benefits. First, it could preserve the stable share price of money market funds with stable NAV and could reduce NAV variability in floating NAV money market funds. Money market funds that are supported by a NAV buffer would be more resilient to redemptions and liquidity stress in their portfolios than money market funds without a buffer. This may reduce shareholders' incentive to redeem shares quickly in response to small losses or concerns about the liquidity of the money market fund portfolio, particularly during periods of severe liquidity stress.

Second, a NAV buffer would require money market funds to provide explicit capital support rather than the implicit and uncertain support that is permitted under the current regulatory baseline. This would require funds to internalize some of the cost of the discretionary capital support sometimes provided to money market funds and to define in advance how losses will be allocated. In addition, a NAV buffer could reduce

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430 *See, e.g.,* Better Markets Comment Letter (calculating that a sufficient buffer would need to be larger than the 3.9% of losses that money market funds have incurred in the past).

431 *See, e.g.,* Prof. Zaring Comment Letter; Comment Letter of Fermat Capital Management, LLC (Mar. 2, 2021).

432 *See, e.g.,* Better Markets Comment Letter.

433 *See, e.g.,* Systemic Risk Council Comment Letter.

fund managers' incentives to take risk beyond what is desired by fund shareholders because investing in less risky securities reduces the probability of buffer depletion.

Third, a NAV buffer may also provide counter-cyclical capital to the money market fund industry. Once a buffer is funded it remains in place regardless of redemption activity. With a buffer, redemptions increase the relative size of the buffer because the same dollar buffer now supports fewer assets. The NAV buffer strengthens the ability of the fund to absorb further losses, reducing investors' incentive to redeem shares.

Fourth, by reducing the NAV variability in money market funds, a NAV buffer may facilitate and protect capital formation in short-term financing markets during periods of modest stress. To the degree that funds may avoid trading when markets are stressed, they may contribute to further illiquidity in short-term funding markets. A NAV buffer could enable funds to absorb small losses and thus could reduce this tendency. Thus, by adding resiliency to money market funds and enhancing their ability to absorb losses, a NAV buffer may benefit capital formation in the long term. A more stable money market fund industry may produce more stable short-term funding markets, which could provide more reliability as to the demand for short-term credit to the economy.

The alternative may involve both direct and indirect costs. In terms of direct costs, capital buffer requirements may be challenging to design and administer.[434] From the standpoint of design of capital buffers, calibrating the appropriate size of the buffer as well as establishing the parameters for when a floating NAV fund should use its NAV

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[434] *See, e.g.,* CCMC Comment Letter; Schwab Comment Letter; Northern Trust Comment Letter; Western Asset Comment Letter; Fidelity Comment Letter; State Street Comment Letter; GARP Risk Institute Comment Letter.

buffer could present operational and implementation difficulties and, if not done effectively, could contribute to self-fulfilling runs on funds experiencing large redemptions. From the standpoint of administering capital buffers, floating NAV funds would need to establish policies and procedures around the use of buffers, replenishing capital buffers when they are depleted and raising requisite financing, regulatory reporting, and investor disclosures about buffers, among other things. Depending on how a capital buffer is structured (*e.g.*, as sponsor provided capital or as a subordinated share class requiring shareholder approval), there may be other administrative, accounting, tax, and legal challenges and costs for fund sponsors and investors.

The alternative may also involve three sets of indirect costs. First, the alternative would result in opportunity costs associated with maintaining a NAV buffer.[435] Those contributing to the buffer would deploy valuable scarce resources to maintain a NAV buffer rather than being able to use the funds elsewhere. Estimates of these opportunity costs are not possible because the relevant data is not currently available to the Commission. Second, entities providing capital for the NAV buffer, such as the fund

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435 Some commenters noted that it would take a substantial amount of time to raise a capital buffer by retaining fund earnings. *See e.g.,* ICI Comment Letter I; Federated Hermes Comment Letter I (noting also that the issuance of a subordinated class of shares would go against the principles of the Investment Company Act that limit the use of leverage and the issuance of multiple classes of shares). One commenter proposed that a capital buffer be financed through the issuance of subordinated shares that would absorb losses before ordinary shareholders. *See* Prof. Hanson et al. Comment Letter (proposing a share class of approximately 3-4% of assets, with an estimated reduction in yield to ordinary shareholders of approximately 0.05%). Another commenter supported the development of contingent financing facilities to be provided by non-bank private investors. *See* Fermat Capital Comment Letter. Other commenters stated that the addition of a subordinated class of shares would add complexity to the industry and disproportionately affect smaller funds and new entrants. *See also* State Street Comment Letter (stating "we understand this proposal was considered during previous rounds of reform, but it was the SEC itself that questioned whether this would be a meaningful or effective solution").

sponsor, would expect to be paid a return that sets the market value of the buffer equal to the amount of the capital contribution. Since a NAV buffer is designed to absorb the same amount of risk regardless of its size, the promised yield, or cost of the buffer, increases with the relative amount of risk it is expected to absorb (also known as a leverage effect).[436] Third, money market funds with buffers may avoid holding riskier short-term debt securities (like commercial paper) and instead hold a higher amount of low yielding investments like cash, Treasury securities, or Treasury repos. This could lead money market funds to hold more conservative portfolios than investors may prefer, given tradeoffs between principal stability, liquidity, and yield. Moreover, the costs of establishing and maintaining a capital buffer would decrease returns to fund investors.[437] The increased costs and decreased returns of a capital buffer requirement may decrease the size of the money market fund sector, which would affect short-term funding markets, and could lead to increased industry concentration.[438] Moreover, this may alter competition in the money market fund industry as capital buffer requirements may be easier to comply with for bank-sponsored funds, funds that are members of large fund families, and funds that have a large parent.

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436 The leverage effect reflects the concept that higher leverage levels induce an equity holder to demand higher returns to compensate for the higher risk levels.

437 *See, e.g.,* SIFMA AMG Comment Letter; CCMC Comment Letter; Northern Trust Comment Letter; Fidelity Comment Letter; Federated Hermes I Comment Letter; CCMR Comment Letter.

438 *See, e.g.,* SIFMA AMG Comment Letter; ICI I Comment Letter (stating that requiring advisers to take a first-loss position would be a radical departure from the current role that fund advisers play under the federal securities laws); Western Asset Comment Letter; Fidelity Comment Letter; JP Morgan Comment Letter; Institute of International Finance Comment Letter; BlackRock Comment Letter; GARP Risk Institute Comment Letter; CCMR Comment Letter.

Importantly, capital buffers may not have prevented the liquidity stresses that arose in March 2020.[439] A NAV buffer does not protect shareholders completely from the possibility of heightened rapid redemption activity during periods of market stress, particularly in periods where the buffer is at risk of depletion, such as during March 2020. As the buffer becomes impaired (or if shareholders believe the fund may suffer a loss that exceeds the size of its NAV buffer), shareholders have an incentive to redeem shares quickly because, once the buffer fails, and shareholders will experience sudden losses. At the same time, capital buffers could lead some investors to believe that their investments carry no risk, which may influence investor allocations and adversely impact allocative efficiency. Moreover, capital buffers may not have the same benefits for investment products such as money market funds, where the investor bears the risk of loss, as they do for banks.

14. Minimum Balance at Risk

Another alternative discussed in the PWG Report is minimum balance at risk. Specifically, the proposal could have required that a portion of each shareholder's recent balance in a money market fund be available for redemption only with a time delay. Under the alternative, all shareholders could redeem most of their holdings immediately without being restricted by the minimum balance at risk. This alternative also could

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439 *See, e.g.,* SIFMA AMG Comment Letter; Northern Trust Comment Letter; Fidelity Comment Letter; State Street Comment Letter; CCMR Comment Letter (stating that capital buffers are intended to reduce credit risk for investors, but the redemptions from money market funds in March 2020 were not driven by credit risk). *See also* Americans for Financial Reform Comment Letter (expressing some support for a capital buffer but stating that a capital buffer alone would not appear sufficient to absorb losses associated with the investor redemptions in March 2020).

include a requirement to put a portion of redeeming investors' holdback shares first in line to absorb losses that occur during the holdback period. A floating NAV fund could be required to use a minimum balance at risk mechanism to allocate losses only under certain rare circumstances, such as when the fund has a large drop in NAV or is closed.

Such an alternative could provide some benefits to money market funds. First, it would force redeeming shareholders to pay for the cost of liquidity during periods of severe market stress when liquidity is particularly costly. Such a requirement could create an incentive against shareholders participating in a run on a fund facing potential losses of certain sizes because shareholders will incur greater losses if they redeem.[440]

Second, it would allocate liquidity costs to investors demanding liquidity when the fund itself is under severe stress. This would be accomplished primarily by making redeeming shareholders bear first losses when the fund first depletes its buffer and then the fund's value falls below its stable share price within 30 days after their redemption. Redeeming shareholders subject to the holdback are the ones whose redemptions may have contributed to fund losses if securities are sold at fire sale prices to satisfy those redemptions. If the fund sells assets to meet redemptions, the costs of doing so would be incurred while the redeeming investor is still in the fund because of the delay in redeeming holdback shares.

Third, the alternative would provide the fund with a period of time to obtain cash to satisfy the holdback portion of a shareholder's redemption. This may give the fund time for distressed securities to recover when, for example, the market has acquired

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[440] *See, e.g.,* Americans for Financial Reform Comment Letter; CFA Comment Letter; Robert Rutkowski Comment Letter (support as an alternative to swing pricing).

additional information about the ability of the issuer to make payment upon maturity. The alternative would provide time for potential losses in fund portfolios to be avoided since distressed securities could trade at a heavy discount in the market but may ultimately pay in full at maturity.

Implementing minimum balance at risk could involve operational challenges and direct implementation costs. The alternative would involve costs to convert existing shares or issue new holdback and subordinated holdback shares, changes to systems that would allow record-keepers to account for and track the minimum balance at risk and allocation of unrestricted, holdback or subordinated holdback shares in shareholder accounts, and systems to calculate and reset average account balances and restrict redemptions of applicable shares.[441] These costs could vary significantly among funds depending on a variety of factors. In addition, funds subject to a minimum balance at risk may have to amend or adopt new governing documents to issue different classes of shares with different rights: unrestricted shares, holdback shares, and subordinated holdback shares. The costs to amend governing documents would vary based on the jurisdiction in which the fund is organized and the amendment processes enumerated in the fund's governing documents, including whether board or shareholder approval is necessary. The costs of obtaining shareholder approval, amending governing documents, or changing domicile would depend on a number of factors, including the size and the number of shareholders of the fund.

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441 *See, e.g.,* SIFMA AMG Comment Letter; Western Asset Comment Letter; Fidelity Comment Letter; ICI Comment Letter I; JP Morgan Comment Letter; BlackRock Comment Letter.

In addition, this alternative would give rise to a number of indirect costs. First, the alternative may have different and unequal effects on investors in stable NAV and floating NAV money market funds. During the holdback period, investors in a stable NAV fund would only experience losses if the fund breaks the buck. Investors in a floating NAV fund, however, are always exposed to changes in the fund's NAV and would continue to be exposed to such risk for any shares held back. These differential effects could reduce investor demand for floating NAV money market funds.

Second, under the MBR alternative, there would still be an incentive to redeem in times of fund and market stress. The alternative could force shareholders that redeem more than a certain percent of their assets to pay for any losses, if incurred, on the entire portfolio on a ratable basis. The contingent nature of the way losses are distributed among shareholders forces early redeeming investors to bear the losses they are trying to avoid. Money market funds may choose to meet redemptions by selling assets that are the most liquid and have the smallest capital losses. Once a fund exhausts its supply of liquid assets, it may sell less liquid assets to meet redemption requests, possibly at a loss. If in fact assets are sold at a loss, the value of the fund's shares could be impaired, motivating shareholders to be the first to leave.

Third, minimum balance at risk may reduce the utility of money market funds for investors.[442] Many current investors who value liquidity in money market funds may shift their investment to other short-term investments that offer higher yields or fewer

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[442] *See, e.g.,* SIFMA AMG Comment Letter; Western Asset Comment Letter; Fidelity Comment Letter; ICI I Comment Letter; Federated Hermes I Comment Letter; Healthy Markets Association Comment Letter.

restrictions on redemptions.[443] A reduction in the number of money market funds and/or the amount of money market fund assets under management as a result of any further money market fund reforms would have a greater negative impact on money market fund sponsors whose fund groups consist primarily of money market funds, than on sponsors that offer a more diversified range of mutual funds or engage in other financial activities (*e.g.*, brokerage). Given that one of the largest money market funds' commercial paper exposures is to issuances by financial institutions, a reduction in the demand of money market instruments may have an impact on the ability of financial institutions to issue commercial paper.

Fourth, the alternative may not have addressed the liquidity stresses that occurred in March 2020.[444] The minimum balance at risk alternative generally impairs the liquidity of money market fund investments. To the degree that many investor redemptions in March 2020 were driven by exogenous liquidity needs (arising out of the Covid-19 pandemic), investors would still have strong incentives to redeem assets they could in order access liquidity.

15. Liquidity Exchange Bank Membership

The PWG Report also discussed an alternative requiring prime and tax-exempt money market funds to be members of a private liquidity exchange bank ("LEB"). The LEB would be a chartered bank that would provide a liquidity backstop during periods of

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443 *See, e.g.,* SIFMA AMG Comment Letter; Western Asset Comment Letter; Fidelity Comment Letter; ICI I Comment Letter; JP Morgan Comment Letter; State Street Comment Letter; Healthy Markets Association Comment Letter; mCD IP Comment Letter.

444 *See, e.g.*, CCMC Comment Letter; SIFMA AMG Comment Letter; ICI I Comment Letter; Fidelity Comment Letter.

market stress. Money market fund members and their sponsors would capitalize the LEB through initial contributions and ongoing commitment fees, for example. During times of market stress, the LEB would purchase eligible assets from money market funds that need cash, up to a maximum amount per fund. The intent of the LEB would be to diminish investors' incentive to redeem in times of market stress while having the benefit of pooling liquidity resources rather than requiring each money market fund to hold higher levels of liquidity separately.

This alternative, as well as broader industry-wide insurance programs, could mitigate the risk of liquidity runs in money market funds and their detrimental impacts on investors and capital formation.[445] The alternative could replace money market funds' historical reliance on discretionary sponsor support, which has covered capital losses in money market funds in the past but, as discussed above, also contributes to these funds' vulnerability to liquidity runs. One commenter suggested that some sort of collective emergency insurance fund would be helpful to reduce the moral hazard of funds that may be reliant on future Federal Reserve facilities in times of market stress.[446]

Several commenters on the PWG Report opposed an LEB option for money market funds.[447] These commenters expressed concern that the establishment and continued funding of an LEB for prime and tax-exempt money market funds would be

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445 *See, e.g.,* James Setterlund Comment Letter; Prof. Zaring Comment Letter; Systemic Risk Council Comment Letter.

446 *See* James Setterlund Comment Letter.

447 *See, e.g.*, SIFMA AMG Comment Letter; ICI Comment Letter I; Fidelity Comment Letter; Western Asset Comment Letter.

operationally complex and impractical.[448] Further, commenters suggested that a significant amount of capital would be necessary to create a meaningful liquidity backstop for money market funds and that such costs would be burdensome for sponsors and investors. Commenters suggested that if LEB membership were required, prime and tax-exempt money market funds could no longer exist in a manner that is attractive to investors due to increased fees and, as a result, advisers would simply stop sponsoring such products.[449] One commenter pointed out that even a well-capitalized LEB would struggle to absorb an adequate level of assets during the March 2020 downturn.[450]

Moreover, some commenters also expressed concern that an LEB that does not have sufficient liquidity would risk a run by causing investor alarm, similar to how redemption behavior increased in March 2020 when a fund's level of weekly liquid assets neared 30%.[451] Some commenters also suggested that the establishment of a chartered LEB would introduce complex banking regulatory issues and inherent conflicts of interest.[452] Further, commenters expressed that any reform that involves pooling liquidity

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448 *See* ICI Comment Letter I (stating that "[o]ver ten years ago, ICI, with assistance from its members, outside counsel, and consultants, spent about 18 months developing a preliminary framework for a private liquidity facility, including how it could be structured, capitalized, governed, and operated. There were many drawbacks, limitations, and challenges to creating such a facility that we described in our framework and that are noted in the PWG Report. Each of these impediments remains today"); *see also* State Street Comment Letter (stating "we understand this proposal was considered during previous rounds of reform, but it was the SEC itself that questioned whether this would be a meaningful or effective solution").

449 SIFMA AMG Comment Letter; ICI Comment Letter I; Western Asset Comment Letter.

450 JP Morgan Comment Letter.

451 SIFMA AMG Comment Letter; Fidelity Comment Letter.

452 SIFMA AMG Comment Letter; Fidelity Comment Letter; Institute of International Finance Comment Letter (noting that "[t]he Federal Reserve's Section 23A restrictions on affiliate transactions would impose significant constraints on LEB support to MMFs absent a clear exemption."); *see also* mCP (stating that "unless an exemption from a

resources that are shared by all members could create moral hazard concerns by forcing more responsible funds that invest in safer assets to bear the costs of supporting less responsible funds.[453] Lastly, commenters suggested that to be viable, the LEB would need access to the Federal Reserve discount window.[454]

This alternative may not significantly reduce the contagion effects from heavy redemptions at money market funds without undue costs. Membership in the LEB has the potential to create moral hazard and encourage excessive risk-taking by money market funds, given the difficulties and costs involved in creating effective risk-based pricing for insurance and additional regulatory structure to offset this incentive. If the alternative actually increases moral hazard and decreases corresponding market discipline, it may in fact increase rather than decrease money market funds' susceptibility to liquidity runs. These incentives may be countered by imposing a very costly regulatory structure and risk-based pricing system; however, related costs are likely to be passed along to investors and may reduce the attractiveness of money market funds relative to bank products and other cash management tools. Finally, it may be difficult to create private

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normal bank regulations were granted, that would put the LEB in clear breach of the Liquidity Coverage Ratio…").

453 SIFMA AMG Comment Letter; Fidelity Comment Letter; Western Asset Comment Letter.

454 *See, e.g.*, JP Morgan Comment Letter; Fidelity Comment Letter; SIFMA AMG Comment Letter; Institute of International Finance Comment Letter. As the Commission recognized in 2014, "access to the discount window would raise complicated policy considerations and likely would require legislation. In addition, such a facility would not protect money market funds from capital losses triggered by credit events as the facility would purchase securities at the prevailing market price." *See* 2014 Adopting Release, *supra* footnote 12, at paragraph accompanying n.2118. We believe that an LEB without such additional loss protection may not sufficiently prevent widespread liquidity induced runs on money market funds similar to those experienced in March 2020.

insurance at an appropriate cost and of sufficient capacity for a several trillion-dollar industry that tends to have highly correlated tail risk.

E. Effects on Efficiency, Competition, and Capital Formation

The proposed amendments are intended to reduce run risk, mitigate the liquidity externalities transacting investors impose on non-transacting investors, and enhance the resilience of money market funds. To the degree that the proposal would increase the resilience of money market funds, it may enhance the availability of wholesale funding liquidity to market participants and enhance their ability to raise capital, particularly during severe stress. The proposed amendments may also reduce the probability that runs would result in future government interventions, inform investors about liquidity risks of their money market fund investments, and enhance the ability of investors to optimize their portfolio allocations.

The proposal may enhance the efficiency of liquidity provision. Specifically, money market funds and issuers of short-term debt that money market funds hold benefit from perceived government backstops and the safety and soundness of the financial system. When the liquidity of underlying assets in money market fund portfolios is impaired, investors benefit from selling money market fund shares before or instead of selling assets that funds hold. Thus, in times of market stress, liquidity demand may be directed to money market funds even though the relative cost of liquidity in money market funds may be greater, resulting in inefficient provision of liquidity. While the proposal would not result in money market funds fully internalizing the costs of investing in illiquid assets, to the degree that the proposal would reduce the need for future implicit government backstops in times of stress, the proposal may result in more efficient provision of liquidity.

The proposed disclosure requirements are expected to enhance informational efficiency. To the degree that some investors may currently be uninformed about liquidity risks of money market fund investments, the proposed swing pricing and disclosure requirements may increase transparency about liquidity costs transacting investors impose on remaining fund investors and liquidity risks in money market funds. While many investors may use money market funds as cash equivalents, money market funds use capital subject to daily or intraday redemptions to invest in portfolios of risky assets. This gives rise to liquidity risk and liquidity externalities between transacting and non-transacting investors, as discussed throughout the release. The possibility that a fund's NAV may swing as a result of net redemptions, as well as the proposed disclosure requirements may help inform investors about the liquidity risks inherent in money market funds and liquidity costs of redemptions, particularly during times of stress. To the degree that greater transparency about liquidity risk of money market funds may lead some risk averse investors to use other instruments, such as banking products, in lieu of money market funds for cash management, allocative efficiency may increase.

The proposal may have two groups of competitive effects. First, proposed increases in liquidity requirements may affect competition among prime money market funds. As discussed in detail in Section III.C.2, many affected funds already have liquidity levels that would meet or exceed the proposed minimum daily and weekly liquid asset thresholds. However, other funds would have to rebalance their portfolios to come into compliance with the proposed amendments, which may reduce the yields they are able to offer investors. The proposed amendments may, thus improve the competitive

standing of funds that currently have higher levels of daily and weekly liquidity relative to funds that currently do not and may, thus, be able to offer higher yields to investors.

Second, the proposed amendments may influence the competitive standing of prime money market funds relative to government money market funds. The proposed elimination of gates and fees and swing pricing may reduce the risk of runs on prime money market funds and may protect the value of investments of non-transacting shareholders. However, swing pricing may increase the variability of prime money market funds net asset values, while higher liquidity requirements may reduce the yields they are able to offer to investors. This may reduce their attractiveness to investors and may result in a greater reallocation of capital from prime to government funds, bank deposit accounts, insurance company separate accounts, and other types of liquid vehicles.

The proposed increases in minimum liquidity thresholds may reduce access to and increase costs of raising capital for some issuers of short-term debt, thereby potentially negatively affecting capital formation. Moreover, to the degree that raising liquidity thresholds may reduce money market fund yields and to the extent that swing pricing may increase uncertainty about investors' redemption costs, the proposal may reduce the viability of prime money market funds as an asset class. This reallocation need not be inefficient since government money market funds or banking products may be more suitable for cash management by liquidity risk averse investors. Moreover, banking entities insured by the FDIC pay deposit insurance assessments, whereas money market funds do not internalize any portion of government interventions or externalities they impose on other investors in the same asset classes.

Nevertheless, potential decreases in the size of the prime money market fund sector may have adverse follow-on effects on capital formation and the availability of wholesale funding liquidity to issuers and institutions seeking to arbitrage mispricings across markets. Issuers may respond to such changes by shifting their commercial paper and certificate of deposit issuance toward longer maturity instruments, which may reduce their exposure to rollover risk.

These aspects of the proposal may be borne disproportionately by global or foreign banking organizations that rely on money market funds for dollar funding. Specifically, academic research has explored the effects of outflows from prime money market funds into government money market funds around the 2014 money market fund reforms on business models and lending activities of foreign banking organizations in the U.S. To the degree that the proposed amendments would result in further outflows from prime money market funds, banking organizations reliant on unsecured funding from money market funds may reduce arbitrage positions and investments in illiquid assets, rather than reducing lending.[455] However, reduced wholesale dollar funding from money market funds may also lead to a reduction in capital formation through dollar lending by affected banks, which may reduce the dollar borrowing ability of firms reliant on affected banks.[456]

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455 *See, e.g.,* Anderson, Alyssa, Wenxin Du, Bernd Schlusche. 2019. "Money Market Fund Reform and Arbitrage Capital." Working Paper. *See also* Thomas Flanagan. 2020. "Funding Stability and Bank Liquidity." Working Paper.

456 *See, e.g.,* Ivashina, Victoria, David Scharfstein, and Jeremy Stein, 2015. "Dollar Funding and the Lending Behavior of Global Banks." Quarterly Journal of Economics 130(3): 1241-1281.

Amendments related to potential negative interest rates may increase informational and allocative efficiency. In the event gross fund yields turn negative, the proposal would prohibit the use of reverse share distribution mechanisms, and would require stable NAV funds to float the NAV. This may enhance transparency of fund yields to investors, which may enhance informational and allocative efficiency in stable NAV funds. However, to the degree that stable NAV fund investors may use such accounts for sweep accounting or for cash management, floating the NAV under such circumstances may increase price variability of and decrease investor interest in affected retail or government money market funds. As a result, investors may move their capital to bank accounts or other cash alternatives, which may reduce the size of the retail and government money market fund sector. Since money market funds play an essential role in the provision of wholesale funding liquidity and since negative interest rates may be most likely during severe macroeconomic stress, the proposal may lead to a negative shock to wholesale funding liquidity and capital formation during peak macroeconomic stress.

The proposed requirement that money market funds determine that their intermediaries have the capacity to process the transactions at floating NAV and the related recordkeeping requirements may affect competition among funds and intermediaries. Specifically, intermediaries that are currently unable to process stable NAV fund shares at floating NAV prices would have to update their transaction processing systems or lose the ability to process transactions with stable NAV money market funds. Such costs are more easily borne by larger intermediary complexes, which are also more likely to be processing both stable and floating NAV fund transactions and

be already equipped for the potential transition. This may place smaller intermediaries processing transactions in stable NAV funds at a competitive disadvantage relative to larger intermediaries. In addition, funds heavily reliant for their distribution on smaller intermediaries that are not currently equipped to process transactions at a floating NAV may experience more significant disruptions to their distribution networks. Such funds are more likely to bear higher compliance costs of the proposal and may lose investor capital to other funds that rely on larger intermediaries that are already in compliance with the proposed amendments. Notably, such reallocation need not be inefficient if larger intermediaries have superior processing systems and, due to economies of scale and scope, are able to process transactions for a variety of funds under different market conditions. However, it may place funds reliant on less technologically advanced intermediaries for their distribution at a competitive disadvantage relative to funds using better equipped intermediaries. It may also disadvantage smaller fund complexes generally as they may have fewer economies of scale and scope.

The proposed amendments related to the methods of calculation of WAM and WAL may increase consistency and comparability of disclosures by money market funds in data reported to the Commission and provided on fund websites. The amendments, therefore, may reduce informational asymmetries between funds and fund investors about interest rate and liquidity risk exposures across fund portfolios. To the degree that consistency and comparability of WAM and WAL information may inform investors and may influence their capital allocation decisions, the proposed amendments may improve allocative efficiency. The proposed amendments related to the calculation of WAM and WAL are not expected to affect competition and capital formation.

F. Request for Comment

We request comment on all aspects of the economic analysis of the proposed amendments. To the extent possible, we request that commenters provide supporting data and analysis with respect to the benefits, costs, and effects on competition, efficiency, and capital formation of adopting the proposed amendments or any reasonable alternatives. In particular, we ask commenters to consider the following questions:

143. What additional qualitative or quantitative information should be considered as part of the baseline for the economic analysis of these amendments? What fraction of institutional prime and institutional tax-exempt funds currently strike their NAV at the bid price of securities?

144. Are the costs and benefits of proposed amendments accurately characterized? If not, why not? Should any of the costs or benefits be modified? What, if any, other costs or benefits should be taken into account? If possible, please offer ways of estimating these costs and benefits. What additional considerations can be used to estimate the costs and benefits of the proposed amendments?

145. Are the costs and benefits of proposed swing pricing amendments accurately characterized? If not, why not? How many institutional prime and institutional tax exempt money market funds already impose order cut-off times? Are the costs of funds doing so accurately characterized? What, if any, other costs or benefits should be taken into account? If possible, please offer ways of estimating these costs and benefits.

146. Are the costs and benefits of proposed amendments related to potential negative interest rates accurately characterized? If not, why not?

Should any of the costs or benefits be modified? What, if any, other costs or benefits should be taken into account? If possible, please offer ways of estimating these costs and benefits. What additional considerations can be used to estimate the costs and benefits of the proposed amendments?

147. Are the effects on competition, efficiency, and capital formation arising from the proposed amendments accurately characterized? If not, why not?

148. Are the economic effects of the above alternatives accurately characterized? If not, why not? Should any of the costs or benefits be modified? What, if any, other costs or benefits should be taken into account?

149. Are the economic effects of the dynamic liquidity fee alternative to the proposed swing pricing requirement accurately characterized? If not, why not? Should any of the costs or benefits be modified? What, if any, other costs or benefits should be taken into account?

150. Are the economic effects of the alternative approaches to implementing swing pricing adequately characterized? If not, why not? Should any of the costs or benefits be modified? What, if any, other costs or benefits should be taken into account?

151. Are the economic effects of the sponsor support alternative accurately characterized? If not, why not? Should any of the costs or benefits be modified? What, if any, other costs or benefits should be taken into account?

152. Are the economic effects of the minimum balance at risk alternative accurately characterized? If not, why not? Should any of the costs or benefits be modified? What, if any, other costs or benefits should be taken into account?

153. Are the economic effects of the Inline XBRL alternative for Form N-CR accurately characterized? If not, why not? Should any of the costs or benefits be modified? What, if any, other costs or benefits should be taken into account?

154. Are there other reasonable alternatives to the proposed amendments that should be considered? What are the costs, benefits, and effects on competition, efficiency, and capital formation of any other alternatives?

155. Are there data sources or data sets that can help refine the estimates of the costs and benefits associated with the proposed amendments? If so, please identify them.

IV. PAPERWORK REDUCTION ACT

A. Introduction

The proposed amendments to rule 2a-7, rule 31a-2, and Forms N-1A, N-CR, and N-MFP contain "collection of information" requirements within the meaning of the Paperwork Reduction Act of 1995 ("PRA").[457] We are submitting the proposed collections of information to the Office of Management and Budget ("OMB") for review

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[457] 44 U.S.C. 3501-3520.

in accordance with the PRA.[458] The titles for the existing collections of information are: (1) "Rule 2a-7 under the Investment Company Act of 1940, Money market funds" (OMB Control No. 3235-0268); (2) "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; (3) "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); (4) "Rule 30b1-8 under the Investment Company Act of 1940, current report for money market funds and Form N-CR, current report, money market fund material events" (OMB Control No. 3235-0705); and (5) "Rule 30b1-7 under the Investment Company Act of 1940, monthly report for money market funds, and Form N-MFP, monthly schedule of portfolio holdings of money market funds" (OMB Control No. 3235-0657).

An agency may not conduct or sponsor, and a person is not required to respond to, a collection of information unless it displays a currently valid OMB control number. We discuss below the collection of information burdens associated with proposed amendments to rules 2a-7 and 31a-2 as well as to Forms N-1A, N-CR, and N-MFP.

B. Rule 2a-7

Certain provisions of our proposed rule would affect the baseline collection of information requirements of rule 2a-7. Several of the amendments create new collection of information requirements or modify existing ones. These amendments include: (1) removal of fee and gate provisions from rule 2a-7 and the associated board

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[458] 44 U.S.C. 3507(d); 5 CFR 1320.11.

determinations of whether to impose a fee or gate; (2) new provisions requiring institutional prime and institutional tax-exempt money market funds to establish and implement swing pricing policies and procedures and deliver a board report no less frequently than annually; and (3) new provisions requiring government and retail money market funds to maintain and keep current records identifying the financial intermediaries the fund has determined have the capacity to transact at non-stable prices per share and the intermediaries for which the fund was unable to make this determination. The retention period with respect to the swing pricing policies and procedures, board reports, and financial intermediary determinations is six years, the first two years in an easily accessible place.

The respondents to these collections of information will be money market funds. We estimate that there are 318 money market funds subject to rule 2a-7, although the proposed new collections of information would each apply to certain subsets of money market funds, as reflected in the below table.[459] The new collections of information are mandatory for the identified types of money market funds that rely on rule 2a-7. The proposed amendments are designed to enable Commission staff in its examinations of money market funds to determine compliance with the rule. To the extent the Commission receives confidential information pursuant to the collections of information, such information will be kept confidential, subject to the provisions of applicable law.[460]

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459 Based on Form N-MFP filings, there were 318 money market funds as of July 2021.

460 *See, e.g.,* 5 U.S.C. 552. Exemption 4 of the Freedom of Information Act provides an exemption for trade secrets and commercial or financial information obtained from a person and privileged or confidential. Exemption 8 of the Freedom of Information Act provides an exemption for matters that are contained in or related to examination, operating, or condition reports prepared by, or on behalf of, or for the use of an agency responsible for the regulation or supervision of financial institutions.

In our most recent Paperwork Reduction Act submission for rule 2a-7, we estimated the annual aggregate compliance burden to comply with the collection of information requirement of rule 2a-7 is 337,328 burden hours with an internal cost burden of $92,875,630 and an external cost burden estimate of $38,100,454.[461]

The table below summarizes our PRA initial and ongoing annual burden estimates associated with the proposed amendments to rule 2a-7.

Table 7: Proposed Burden Estimates for Rule 2a-7

	Internal initial burden hours	Internal annual burden hours[1]		Wage rate[2]	Internal time costs	Annual external cost burden
PROPOSED ESTIMATES						
Removal of fee and gate provisions	0 hours	-7 hours	×	$1,562[3]	-$10,935	
Number of funds		× 2[4]			x 2[4]	
Total annual burden for removal of fee and gate provisions (I)		-14 hours			-$21,870	
Swing pricing policies and procedures	54 hours[5]	20 hours[6]	x	$382[7]	$7,640	
		2 hours		$4,470[8]	$8,940	
Swing pricing board reporting		4 hours[9]	x	$2,419[10]	$9,676	
Swing pricing recordkeeping		4 hours[11]	x	$113[12]	$452	
Number of fund complexes		× 25[13]			x 25[13]	
Total annual burden for swing pricing requirement (II)		750 hours			$667,700	
Recordkeeping related to financial intermediary determinations	3 hours	2 hours[14]		$110[15]	$220	
Number of funds		× 265[16]			x 265[16]	
Total annual burden for determinations related to financial intermediaries (III)		530 hours			$58,300	
Total new annual burden (I +II + III)		1,266 hours			$704,130	
Current burden estimates		337,328 hours			$92,875,630	$38,100,454
Revised burden estimates		338,594 hours			$93,579,760	$38,100,454

Notes:

1. This estimate includes the initial burden estimates amortized over a three-year period.

2. The Commission's estimates of the relevant wage rates (with the exception of the board of directors) are based on salary information for the securities industry compiled by the Securities Industry and Financial Markets Association's Office Salaries in the Securities Industry 2013. The estimated wage figures are modified by Commission staff to account for an 1,800-hour work-year and multiplied by 5.35 to account for bonuses, firm size, employee benefits, overhead, and adjusted to account for the effects of inflation. These PRA estimates assume that the same types of professionals would be involved in the proposed requirements that we believe otherwise would be involved in complying with other information collection requirements in rule 2a-7.

3. Represents the wage rate and burden hour allocations the Commission used in its most recent PRA submission. In that submission, the Commission estimated 5

461 The most recent rule 2a-7 PRA submission was approved in 2019 (OMB Control No. 3235-0268).

hours for an attorney (at a rate of $401 per hour) and 2 hours for a board of 9 directors (at a rate of $4,465 per hour).

4. In its most recent PRA submission, the Commission estimated that 2 funds per year would have weekly liquid assets below 30% of total assets, which would require a board determination of whether to impose fees or gates. Because our proposal would remove the fee and gate provisions from the rule, we similarly propose to remove the burdens that have been allocated to these provisions.

5. We are estimating for the purpose of this analysis that each fund complex would incur a one-time average burden of 48 hours to document swing pricing policies and procedures, with 24 hours spent by a senior accountant and 24 hours spent by a chief compliance officer. Since a fund board approves the fund's swing pricing policies and procedures and reviews, no less frequently than annually, a written report that includes certain required elements, we estimate a one-time burden of 6 hours per fund complex associated with the fund board's review and approval of swing pricing policies and procedures.

6. We estimate that each fund complex will spend 4 hours each year, on average, to update swing pricing policies and procedures, with 2 hours spent by a senior accountant and 2 hours spent by a chief compliance officer.

7. Represents a blended wage rate of a senior accountant ($221 per hour) and a chief compliance officer ($542 per hour).

8. Represents an estimated cost per hour for an entire board of directors, assuming an average of 9 board members per board.

9. We estimate that each fund complex would spend 2 hours each year, on average, preparing the required written report to the board. We estimate an annual burden of 2 hours per fund complex associated with the fund board's review of the swing pricing administrator's report.

10. Represents a wage rate of a compliance attorney at $373 per hour and 2 hours for a board of 9 directors at a rate of $4,770 per hour.

11. We estimate that the burden is four hours per fund complex each year to retain the proposed swing pricing records, with 2 hours spent by a general clerk and 2 hours spent by a senior computer operator.

12. Represents a blended wage rate of general clerk ($64 per hour) and senior computer operator ($97 per hour).

13. Represents the number of fund complexes that have institutional prime and institutional tax-exempt funds as of July 2021, based on Form N-MFP data. We estimate the burdens related to swing pricing at the fund complex level because we believe funds in the same complex would experience certain efficiencies in developing and updating written policies and procedures and in board oversight of swing pricing.

14. We estimate that each fund complex would spend 2 hours each year, on average, making the required determinations whether fund intermediaries are capable of transacting in fund shares at other than a stable NAV, typically using a senior compliance examiner.

15. Represents a blended wage rate of general clerk ($64 per hour) and senior computer operator ($97 per hour).

16. Represents the number of government and retail money market funds as of July 2021, based on Form N-MFP data.

C. Rule 31a-2

Section 31(a)(1) of the Investment Company Act requires registered investment companies and certain others to maintain and preserve records as prescribed by Commission rules. Rule 31a-1 specifies the books and records that must be maintained. Rule 31a-2 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 will be used by the Commission staff to evaluate fund compliance with the Investment Company Act and regulations thereunder. We are proposing that certain money market funds retain books and records containing schedules evidencing and

supporting each computation of an adjustment to net asset value of their shares based on swing pricing policies and procedures established and implemented pursuant to proposed rule 2a-7(c)(2). The respondents to these collections of information will be money market funds. The new collections of information are mandatory for the money market funds subject to rule 2a-7(c)(2). We estimate that there are 53 institutional prime and institutional tax-exempt money market funds that would be subject to the proposed collection of information requirements related to swing pricing. To the extent the Commission receives confidential information pursuant to the collections of information, such information will be kept confidential, subject to the provisions of applicable law.[462]

In our most recent Paperwork Reduction Act submission for rule 31a-2, we estimated the annual aggregate compliance burden to comply with the collection of information requirement of rule 31a-2 is 696,464 burden hours with an internal cost burden of $54,672,424 and an external cost burden estimate of $115,372,485.[463]

The table below summarizes our PRA annual burden estimates associated with the proposed amendments to rule 31a-2.

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462 *See id*.

463 The most recent rule 31a-2 PRA submission was approved in 2020 (OMB Control No. 3235-0179).

Table 8: Proposed Burden Estimates for Rule 31a-2

	Internal annual burden hours	Wage rate[1]		Internal time cost	Annual external cost burden
PROPOSED ESTIMATES					
Annual burden associated with proposed swing pricing amendments for money market funds	1.5 hours	$64 (general clerk)	×	$96	$600
	1.5 hours	$97 (senior computer operator)	×	$146	
Number of funds	**x 53**			**x 53**	**x 53**
Total new annual burden	**159 hours**			**$12,826**	**$31,800**
Current Burden Estimates	**696,464 hours**			**$56,672,424**	**$115,372,485**
Revised Burden Estimates	**696,623**			**$56,685,250**	**$115,404,285**

Notes:
1. *See supra* Table 7, at note 2.

D. Form N-MFP

The proposed amendments to Form N-MFP would include additional data collection and certain technical improvements that will assist our monitoring and analysis of money market funds. We are proposing to increase the frequency of certain data points from weekly to daily, collect new information about securities that have been disposed of before maturity, collect new information about the composition and concentration of money market funds' shareholders, collect additional information and remove the ability for funds to aggregate certain required information about repurchase agreement transactions, as well as certain other information about the fund's portfolio securities (*e.g.*, the acquisition date for a security). We are also proposing amendments to improve identifying information about the fund, including changes to better identify different categories of government money market funds, changes to identify privately offered funds that are used for internal cash management purposes, and amendments to provide the name and other identifying information for the registrant, series, and class. The

proposed amendments to Form N-MFP also include several changes to clarify current instructions or items.

The information collection requirements on Form N-MFP are designed to assist the Commission in analyzing the portfolio holdings of money market funds, and thereby augment our understanding of the risk characteristics of individual money market funds and money market funds as a group and industry trends. The proposed amendments enhance our oversight of money market funds and our ability to respond to market events. Preparing a report on Form N-MFP is mandatory for money market funds that rely on rule 2a-7, and responses to the information collections will not be kept confidential.

The respondents to these collections of information will be money market funds. The Commission estimates there are 318 money market funds that report information on Form N-MFP although certain components of the proposed new collections of information would apply to certain subsets of money market funds, as reflected in the below table. We estimate that 35% of money market funds (or 111 money market funds) license a software solution and file reports on Form N-MFP in house. We estimate that the remaining 65% of money market funds (or 207 money market funds) retain the services of a third party to provide data aggregation and validation services as part of the preparation and filing of reports on Form N-MFP on the fund's behalf. We understand that the required data in the proposed amendments to Form N-MFP generally are already maintained by money market funds pursuant to other regulatory requirements or in the ordinary course of business. Accordingly, for the purposes of our analysis, we do not

believe that the proposed amendments add significant burden hours for filers of Form N-MFP.

In our most recent Paperwork Reduction Act submission for Form N-MFP, we estimated the annual aggregate compliance burden to comply with the collection of information requirement of Form N-MFP is 64,667 burden hours with an internal cost burden of $6,754,832 and an external cost burden estimate of $8,682,037.[464]

The table below summarizes our PRA initial and ongoing annual burden estimates associated with the proposed amendments to Form N-MFP.

Table 9: Proposed Burden Estimates for Form N-MFP

	Internal initial burden hours	Internal annual burden hours[1]		Wage rate[2]	Internal time costs	Annual external cost burden
PROPOSED ESTIMATES						
Reporting on disposed securities	3 hours	2 hours	×	$304[3]	$608	
Number of funds for disposed securities information[4]		× 64			x 64	
Total new annual burden for disposed securities information (I)		128 hours			$38,912	
Other proposed amendments	9 hours	7 hours		$304[2]	$2,128	$912
Number of funds[5]		× 318			x 318	x 318
Total new annual burden for Other proposed amendments (II)		2,226 hours			$676,704	$290,016[6]
Total new annual burden (I +II)		2,354 hours			$715,616	$290,016
Current burden estimates		64,667 hours			$6,754,832	$3,179,700
Revised burden estimates		67,021 hours			$7,470,448	$3,469,716

Notes:

1. This estimate includes the initial burden estimates amortized over a three-year period.

2. *See supra* Table 7, at note 2. These PRA estimates assume that the same types of professionals would be involved in the proposed reporting requirements that we believe otherwise would be involved in preparing and filing reports on Form N-MFP.

3. This represents a blended hourly rate of $304 for a Financial Reporting Manager ($297 per hour), Fund Senior Accountant ($221 per hour), Senior Database Administrator ($349 per hour), Senior Portfolio Manager ($336 per hour), and Compliance Manager ($316 per hour)). The blended hourly rate was calculated as ($297 + $221 + $349 + $336 + $316) / 5 = $304.

4. This reflects that our proposal requires that only prime money market funds report information about disposed securities on Form N-MFP. We estimate that there were 64

464 This estimate is based on the last time the PRA submission for the rule's information collection was approved in 2019 (OMB Control No. 3235-0657).

prime funds as of July 2021, based on Form N-MFP filings.

5. We estimate that there were 318 money market funds as of July 2021, based on Form N-MFP filings.

6. This estimate is based on the following information and calculations: (35% x $4,805 (the average cost to license a third-party software solution per year) = $1,681.75) + (65% x $11,440 (the average cost of retaining the services of a third-party vendor to prepare and file reports on Form N-MFP on the fund's behalf) = $7,436) = basis for existing external N-MFP filing costs. We estimate that the new N-MFP requirements will add an additional 10% costs (*e.g.*, ($1,681.75 + $7,436 = $9,117.75) x 10% = $912 per fund). $912 x 318 = $290,016

E. Form N-CR

The proposed amendments to Form N-CR would include the removal of the disclosure items related to fund suspensions of redemptions and liquidity fees. The proposal would require a fund to file a report when its investments are more than 50% below the minimum weekly liquid asset or daily liquid asset requirements. In addition, the proposal would require money market funds to file Form N-CR reports in a custom XML data language. The information collection requirements are designed to assist Commission staff in its oversight of money market funds and its ability to respond to market events. We estimate that there are 318 money market funds subject to Form N-CR reporting requirements, but a fund is required to file a report on Form N-CR only when a reportable event occurs.[465] Compliance with the disclosure requirements of Form N-CR is mandatory for money market funds that rely on rule 2a-7, and the responses to the disclosure requirements will not be kept confidential.

In our most recent Paperwork Reduction Act submission for Form N-CR, we estimated that we would receive, in the aggregate, an average of 6 reports filed on Form N-CR per year. We also estimated the annual aggregate compliance burden to comply

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465 Based on Form N-MFP filings, there were 318 money market funds as of July 2021.

with the collection of information requirement of Form N-CR is 51 burden hours with an internal cost burden of $19,839, and an external cost burden estimate of $6,111.[466]

The table below summarizes our PRA initial and ongoing annual burden estimates associated with the proposed amendments to Form N-CR. Our most recent Paperwork Reduction Act submission for Form N-CR based the burden estimates on the number of Form N-CR reports filed between 2018 and 2020, and no funds filed reports related to liquidity fees or suspensions of redemptions during that period (or at any other time). As a result, we do not believe that removing the items related to liquidity fees and suspensions of redemptions would affect the current burden estimates.

Table 10: Proposed Burden Estimates for Form N-CR

	Internal initial burden hours	Internal annual burden hours		Wage rate[1]	Internal time costs
PROPOSED ESTIMATES					
Reporting of liquidity threshold events	0 hours	4.5 hours	×	$492 (legal professional)	$2,214
	0 hours	4 hours	×	$285 (financial professional)	$1,140
Total annual burden per response		**8.5 hours[2]**			**$3,354**
Number of responses		× 1			× 1
Estimated burden for reporting of liquidity threshold events (I)		**8.5 hours**			**$3,354**
Submission in a structured data language	0 hours	2 hours	×	$277 (programmer)	$554
Number of responses		× 7[3]			× 7[3]
Estimated burden for submission in a structured data format (II)		**14 hours**			**$3,878**
Total estimated burden (I+II)		**22.5**			**$7,232**
Current Burden Estimates		**51**			**$19,839**
Revised Burden Estimates		**73.5**			**$27,071**

Notes:
1. *See supra* Table 7, at note 2. These PRA estimates assume that the same types of professionals would be involved in the proposed reporting requirements that we believe otherwise would be involved in preparing and filing reports on Form N-CR. The financial professional category is the blended average hourly rate for a senior portfolio manager ($336), financial reporting manager ($297), and senior accountant ($221). The legal professional category is a blended average hourly rate for a deputy general counsel ($610) and compliance attorney ($373).

466 The most recent Form N-CR PRA submission was approved in 2021 (OMB Control No. 3235-0705).

2. This estimated burden also includes notifying the board of liquidity threshold events, which will involve providing the same information within the same period as the Form N-CR report.

3. This estimate includes 6 reports filed per year in addition to the 1 estimated annual response resulting from the reporting of liquidity threshold events.

F. Form N-1A

The proposed amendments to Form N-1A would include a requirement for any money market fund that is not a government money market fund or a retail money market fund to provide swing pricing disclosures to investors, including an explanation of the fund's use of swing pricing and a general description of the effects of swing pricing on the fund's average annual total returns for the applicable period(s). The proposed amendments would additionally include a proposal to remove the current disclosures related to the imposition of liquidity fees and any suspension of redemptions. Compliance with the disclosure requirements of Form N-1A is mandatory for money market funds that rely on rule 2a-7, and the responses to the disclosure requirements will not be kept confidential.

The purpose of the information collection requirements on Form N-1A are to meet the filing and disclosure requirements of the Securities Act and the Investment Company Act and to enable funds to provide investors with information necessary to evaluate an investment in the fund. The proposed amendments to Form N-1A are designed to provide investors with information about a fund's swing pricing policies and procedures and how swing pricing may affect an investor, which investors can use to inform their investment decisions.

The respondents to these collections of information will be money market funds. The Commission estimates there are 318 money market funds that are subject to Form N-1A, although the proposed new collections of information would apply to certain subsets

of money market funds. The Commission estimates there are 53 money market funds that will provide swing pricing-related disclosures on Form N-1A. We estimate that 129 money market funds will remove the current disclosures related to the imposition of liquidity fees and any suspension of redemptions. Given the removal of the prior disclosure requirements, we do not believe that the proposed amendments add significant burden hours for filers of Form N-1A.

In our most recent Paperwork Reduction Act submission for Form N-1A, we estimated the annual aggregate burden to comply with the collection of information requirement of Form N-1A is 1,672,077 burden hours with an internal cost burden of $474,392,078, and an external cost burden estimate of $132,940,008.[467]

The table below summarizes our PRA initial and ongoing annual burden estimates associated with the proposed amendments to Form N-1A.

Table 11: Proposed Burden Estimates for Form N-1A

	Internal initial burden hours	Internal annual burden hours[1]	Wage rate[2]	Internal time costs
PROPOSED ESTIMATES				
Swing pricing-related disclosure	**2 hours**	**1.67 hours[3]**	**$356[4]**	**$595**
Number of funds for swing pricing-related disclosure		× 53[5]		× 53[5]
Estimated burden for swing pricing-related disclosure (I)		**89 hours**		**$31,535**
Removal of liquidity fee and redemption gate-related disclosure		**-0.5 hours[6]**	**$356[4]**	**-$178**
Number of funds for removal of liquidity fee and redemption gate-related disclosure		× 129[7]		× 129
Estimated annual burden reduction for removal of fee and gate-related disclosure (II)		**-64.5 hours**		**-$22,962**
Total estimated burden (I-II)		**24.5**		**$8,573**
Current Burden Estimates		**1,672,077**		**$474,392,078**

467 The most recent Form N-1A PRA submission was approved in 2019 (OMB Control No. 3235-0307).

Revised Burden Estimates	1,672,101.5	$474,400,651

Notes:
1. This estimate includes the initial burden estimates amortized over a three-year period.

2. *See supra* Table 7, at note 2. These PRA estimates assume that the same types of professionals would be involved in the proposed disclosure requirements that we believe otherwise would be involved in preparing and filing registration statements on Form N-1A.

3. This estimate assumes that, after the initial 2 hours to comply with the proposed swing pricing disclosure requirements, relevant funds would have an ongoing burden of 1 hour each year to review and update the required disclosures.

4. This represents a blended rate for a compliance attorney ($373) and a senior programmer ($339).

5. The number of funds estimate is based on analysis of the number of prime institutional public, prime institutional nonpublic, and tax-exempt institutional money market funds reporting to the Commission on Form N-MFP as of July 2021.

6. Although no money market funds have imposed liquidity fees or redemption gates and, therefore, funds have not needed to disclose information in their SAIs about the historical occasions in which the fund considered or imposed liquidity fees or redemption gates, the Commission previously estimated that there were ongoing PRA burdens associated with disclosure requirements related to liquidity fees and redemption gates. *See* 2014 Adopting Release, *supra* footnote 13, at section IV.G.

7. The number of funds estimate is based on analysis of the number of non-government money market funds reporting to the Commission on Form N-MFP as of July 2021.

V. INITIAL REGULATORY FLEXIBILITY ANALYSIS

Section 3(a) of the Regulatory Flexibility Act of 1980[468] ("RFA") requires the Commission to undertake an initial regulatory flexibility analysis ("IRFA") of the proposed rule amendments on small entities unless the Commission certifies that the rule, if adopted, would not have a significant economic impact on a substantial number of small entities.[469] Pursuant to 5 U.S.C. section 605(b), the Commission hereby certifies that the proposed amendments to rule 2a-7, rule 31a-2, and Forms N-MFP and N-CR under the Investment Company Act, and Form N-1A under the Investment Company Act and the Securities Act, would not, if adopted, have a significant economic impact on a substantial number of small entities.

468 5 U.S.C. 603(a).

469 5 U.S.C. 605(b).

We are proposing amendments to rule 2a-7 under the exemptive and rulemaking authority set forth in sections 6(c), 8(b), 22(c), and 38(a) of the Investment Company Act of 1940 [15 U.S.C. 80a-6(c), 80a-8(b), 80a-22(c), 80a-37(a)]. The proposed amendments would remove the liquidity fee and redemption gate provisions in rule 2a-7 under the Act. The proposed amendments would further require institutional prime and tax-exempt money market funds to implement swing pricing policies and procedures to require redeeming investors to bear the costs of their decision to redeem. The proposed amendments to rule 2a-7 would increase the daily liquid asset and weekly liquid asset minimum liquidity requirements to 25% and 50%, respectively, to provide a more substantial buffer in the event of rapid redemptions. The proposed amendments would provide guidance and amend rule 2a-7 to address how money market funds with stable net asset values should handle a negative interest rate environment. Finally, the proposed amendments would specify the calculation method for weighted average maturity and weighted average life.

We are 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-30(a)]. The proposed amendments would require certain money market funds to maintain records related to swing pricing. In addition, we are proposing amendments to Forms N-MFP and N-CR under the Investment Company Act under the authority set forth in sections 8(b), 30(b), 31(a), and 38 of the Investment Company Act [15 U.S.C. 80a-8(b), 80a-29(b), 80a-30(a), 80a-37]. We propose amendments to Form N-1A under the Investment Company Act and the Securities Act, under the authority set forth in sections 5, 6, 7, 10, and 19(a) of the Securities Act [15 U.S.C. 77e, 77f, 77g, 77j, and 77s(a)] and sections 8, 24(a), 24(g), 30,

and 38 of the Investment Company Act [15 U.S.C. 80a-8, 80a-24(a), 80a-24(g), 80a-29, and 80a-37]. These proposed amendments would update the reporting requirements on Forms N-MFP and N-CR to improve the availability of information about money market funds, as well as make certain conforming changes to Form N-1A to reflect our proposed changes to the regulatory framework for these funds.

Based on information in filings submitted to the Commission, we believe that only one money market fund is a small entity.[470] For this reason, the Commission believes the proposed amendments to rule 2a-7, rule 31a-2, Forms N-MFP, N-CR, and N-1A, would not, if adopted, have a significant economic impact on a substantial number of small entities.

We encourage written comments regarding this certification. We solicit comment as to whether the proposed amendments to rule 2a-7, rule 31a-2, Forms N-MFP, N-CR, and N-1A could have an effect on small entities that has not been considered. We request that commenters describe the nature of any impact on small entities and provide empirical data to support the extent of such impact.

VI. CONSIDERATION OF IMPACT ON THE ECONOMY

For purposes of the Small Business Regulatory Enforcement Fairness Act of 1996, or "SBREFA,"[471] we must advise OMB whether a proposed regulation constitutes a "major" rule. Under SBREFA, a rule is considered "major" where, if adopted, it results

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470 Under the Investment Company Act, an investment company is considered a small business or small organization if it, together with other investment companies in the same group of related investment companies, has net assets of $50 million or less as of the end of its most recent fiscal year. *See* 17 CFR 270.0-10.

471 Public Law 104-121, Title II, 110 Stat. 857 (1996) (codified in various sections of 5 U.S.C., 15 U.S.C. and as a note to 5 U.S.C. 601).

in or is likely to result in (1) an annual effect on the economy of $100 million or more; (2) a major increase in costs or prices for consumers or individual industries; or (3) significant adverse effects on competition, investment or innovation.

We request comment on the potential impact of the proposed rule on the economy on an annual basis. Commenters are requested to provide empirical data and other factual support for their views to the extent possible.

VII. STATUTORY AUTHORITY

The Commission is proposing amendments to rule 2a-7 of the Act under the exemptive and rulemaking authority set forth in sections 6(c), 8(b), 22(c), and 38(a) of the Investment Company Act of 1940 [15 U.S.C. 80a-6(c), 80a-8(b), 80a-22(c), 80a-37(a)]. The Commission is proposing amendments to rule 31a-2 under the Act pursuant to the authority set forth in section 31(a) of the Investment Company Act [15 U.S.C. 80a-30(a)]. The Commission is proposing amendments to Form N-1A pursuant to the authority set forth in sections 5, 6, 7, 10, and 19(a) of the Securities Act [15 U.S.C. 77e, 77f, 77g, 77j, and 77s(a)] and sections 8, 24(a), 24(g), 30, and 38 of the Investment Company Act [15 U.S.C. 80a-8, 80a-24(a), 80a-24(g), 80a-29, and 80a-37]. The Commission is proposing amendments to Form N-MFP pursuant to the authority set forth in sections 8(b), 30(b), 31(a), and 38(a) of the Investment Company Act [15 U.S.C. 80a-8(b), 80a-29(b), 80a-30(a), and 80a-37(a)]. The Commission is proposing amendments to Form N-CR pursuant to the authority set forth in sections 8(b), 30(b), 31(a), and 38(a) of the Investment Company Act [15 U.S.C. 80a-8(b), 80a-29(b), 80a-30(a), and 80a-37(a)].

List of Subjects in 17 CFR Parts 270 and 274

Investment companies, Reporting and recordkeeping requirements, Securities.

TEXT OF RULE AND FORM AMENDMENTS

For the reasons set out in the preamble, the Commission proposes to amend title 17, chapter II, of the Code of Federal Regulations as follows:

PART 270—RULES AND REGULATIONS, INVESTMENT COMPANY ACT OF 1940

1. The general authority citation for part 270 continues to read 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.

* * * * *

2. Amend section 270.2a-7 by:

a. Revising paragraphs (c)(1)(ii) and (c)(2);

b. Adding paragraph (c)(3); and

c. Revising paragraphs (d)(1)(ii) and (iii), (d)(4)(ii) and (iii), (g)(8)(i), (g)(8)(ii)(A), (h)(8), (h)(10) introductory text, (h)(10)(i)(B)(*2*), (h)(10)(iii) through (v), (h)(11), and (j).

The revisions and addition read as follows:

§ 270.2a-7 Money market funds

* * * * *

(c) * * *

(1) * * *

(ii) Any money market fund that is not a government money market fund or a retail money market fund must compute its price per share for purposes of distribution, redemption and repurchase by rounding the fund's current net asset value per share (including any adjustment to that price under paragraph (c)(2) of this section) to a minimum of the fourth decimal place in the case of a fund with a $1.0000 share price or an equivalent or more precise level of accuracy for money market funds with a different share price (*e.g.*, $10.000 per share, or $100.00 per share).

(2) *Swing pricing.*

(i) *Swing pricing requirement.* Notwithstanding §270.22c-1, any money market fund that is not a government money market fund or a retail money market fund must establish and implement swing pricing policies and procedures as described in paragraph (2)(ii) of this section.

(ii) The fund's swing pricing policies and procedures must:

(A) Provide that the fund must adjust its current net asset value per share by a swing factor if the fund has net redemptions for the pricing period. In determining whether the fund has net redemptions for a pricing period and the amount of net redemptions, the swing pricing administrator is permitted to make such determination based on receipt of sufficient investor flow information for the pricing period to allow the fund to reasonably estimate whether it has net redemptions and the amount of net redemptions. This investor flow information may consist of individual, aggregated, or netted orders, and may include reasonable estimates where necessary.

(B) Specify the process for determining the swing factor, in accordance with paragraph (c)(2)(iii) of this section.

(iii) In determining the swing factor, the swing pricing administrator must make good faith estimates, supported by data, of the costs the fund would incur if it sold a pro rata amount of each security in its portfolio to satisfy the amount of net redemptions for the pricing period.

(A) If the fund has net redemptions for the pricing period, the good faith estimates must include, for each security in the fund's portfolio:

(*1*) Spread costs, such that the fund is valuing each security at its bid price;

(*2*) Brokerage commissions, custody fees, and any other charges, fees, and taxes associated with portfolio security sales; and

(B) If the amount of the fund's net redemptions for the pricing period exceeds the market impact threshold, the good faith estimates also must include, for each security in the fund's portfolio, market impacts, which a fund must determine by:

(*1*) Establishing a market impact factor for each security, which is an estimate of the percentage change in the value of the security if it were sold, per dollar of the amount of the security that would be sold, under current market conditions; and

(*2*) Multiplying the market impact factor for each security by the dollar amount of the security that would be sold if the fund sold a pro rata amount of each security in its portfolio to meet the net redemptions for the pricing period.

(C) The swing pricing administrator may estimate costs and market impact factors for each type of security with the same or substantially similar characteristics and apply those estimates to all securities of that type rather than analyze each security separately.

(iv) The fund's board of directors, including a majority of directors who are not interested persons of the fund must:

(A) Approve the fund's swing pricing policies and procedures;

(B) Designate the swing pricing administrator. The administration of swing pricing must be reasonably segregated from portfolio management of the fund and may not include portfolio managers;

(C) Review, no less frequently than annually, a written report prepared by the swing pricing administrator that describes:

(*1*) Its review of the adequacy of the fund's swing pricing policies and procedures and the effectiveness of their implementation, including their effectiveness at eliminating or reducing any liquidity costs associated with satisfying shareholder redemptions;

(*2*) Any material changes to the fund's swing pricing policies and procedures since the date of the last report; and

(*3*) Its review and assessment of the fund's swing factors and market impact threshold, considering the requirements of paragraphs (c)(2)(ii)(B) and (c)(2)(iii) of this section, including the information and data supporting the determination of the swing factors and the swing pricing administrator's determination to use a smaller market impact threshold, if applicable.

(v) 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 subject to this paragraph (c)(2) must use swing pricing to adjust the master fund's net asset value per share, pursuant to the requirements in this paragraph (c)(2).

(vi) For purposes of this paragraph (c)(2):

(A) *Investor flow information* means information about the fund investors' purchase and redemption activity for the pricing period.

(B) *Market impact threshold* means an amount of net redemptions for a pricing period that equals the value of four percent of the fund's net asset value divided by the number of pricing periods the fund has in a business day, or such smaller amount of net redemptions as the swing pricing administrator determines.

(C) *Pricing period* means the period of time an order to purchase or sell securities issued by the fund must be received to otherwise be priced at a given current net asset value under §270.22c-1, notwithstanding any adjustment to that price that paragraph (c)(2) of this section may require.

(D) *Swing factor* means the amount, expressed as a percentage of the fund's net asset value and determined pursuant to the fund's swing pricing policies and procedures, by which a fund adjusts its net asset value per share.

(E) *Swing pricing administrator* means the fund's investment adviser, officer, or officers responsible for administering the swing pricing policies and procedures. The swing pricing administrator may consist of a group of persons.

(3) *Prohibited activities.* A money market fund may not reduce the number of its shares outstanding to seek to maintain a stable net asset value per share or stable price per share.

(d) * * *

(1) * * *

(i) * * *

(ii) Maintain a dollar-weighted average portfolio maturity ("WAM") that exceeds 60 calendar days, with the dollar-weighted average based on the percentage of each security's market value in the portfolio; or

(iii) Maintain a dollar-weighted average portfolio maturity that exceeds 120 calendar days, determined without reference to the exceptions in paragraph (i) of this section regarding interest rate readjustments ("WAL") and with the dollar-weighted average based on the percentage of each security's market value in the portfolio.

* * * * *

(4) * * *

(ii) *Minimum daily liquidity requirement.* The money market fund may not acquire any security other than a daily liquid asset if, immediately after the acquisition, the fund would have invested less than twenty-five percent of its total assets in daily liquid assets. This provision does not apply to tax exempt funds.

(iii) *Minimum weekly liquidity requirement.* The money market fund may not acquire any security other than a weekly liquid asset if, immediately after the acquisition, the fund would have invested less than fifty percent of its total assets in weekly liquid assets.

* * * * *

(f) * * *

(4) *Notice to the board of directors*.

(i) The money market fund must notify its board of directors within one business day following the occurrence of:

(A) The money market fund investing less than twelve and a half percent of its total assets in daily liquid assets; or

(B) The money market fund investing less than twenty-five percent of its total assets in weekly liquid assets.

(ii) Following an event described in paragraphs (f)(4)(i) or (ii) of this section, the money market fund must provide its board of directors with a brief description of the facts and circumstances leading to such event within four business days after occurrence of the event. (g) * * *

(8) * * *

(i) *General.* The periodic stress testing, at such intervals as the board of directors determines appropriate and reasonable in light of current market conditions, of the money market fund's ability to maintain sufficient minimum liquidity, and the fund's ability to minimize principal volatility (and, in the case of a money market fund using the amortized cost method of valuation or penny rounding method of pricing as provided in paragraph (c)(1) of this section, the fund's ability to maintain the stable price per share established by the board of directors for the purpose of distribution, redemption and repurchase), based upon specified hypothetical events that include, but are not limited to: * * * * *

(ii) * * *

(A) The date(s) on which the testing was performed and an assessment of the money market fund's ability to maintain sufficient minimum liquidity and to minimize principal volatility (and, in the case of a money market fund using the amortized cost method of valuation or penny rounding method of pricing as provided in paragraph (c)(1)

of this section to maintain the stable price per share established by the board of directors); and

* * * * *

(h) * * *

* * * * *

(8) *Reports*. For a period of not less than six years (the first two years in an easily accessible place), written copies of the swing pricing reports required under paragraph (c)(2)(iv)(C) and the stress testing reports required under paragraph (g)(8)(ii) of this section must be maintained and preserved.

* * * * *

(10) *Website disclosure of portfolio holdings and other fund information.* The money market fund must post prominently on its website the following information:

(i) * * *

(B) * * *

(*2*) Category of investment (indicate the category that identifies the instrument from among the following: U.S. Treasury Debt; U.S. Government Agency Debt, if categorized as coupon-paying notes; U.S. Government Agency Debt, if categorized as no-coupon discount notes; Non-U.S. Sovereign, Sub-Sovereign and Supra-National debt; Certificate of Deposit; Non-Negotiable Time Deposit; Variable Rate Demand Note; Other Municipal Security; Asset Backed Commercial Paper; Other Asset Backed Securities; U.S. Treasury Repurchase Agreement, if collateralized only by U.S. Treasuries (including Strips) and cash; U.S. Government Agency Repurchase Agreement, collateralized only by U.S. Government Agency securities, U.S. Treasuries, and cash;

Other Repurchase Agreement, if any collateral falls outside Treasury, Government Agency and cash; Insurance Company Funding Agreement; Investment Company; Financial Company Commercial Paper; Non-Financial Company Commercial Paper; and Other Instrument. If Other Instrument, include a brief description);

* * * * *

(iii) A schedule, chart, graph, or other depiction showing the money market fund's net asset value per share (which the fund must calculate based on current market factors before applying the amortized cost or penny-rounding method, if used, and which must incorporate the application of a swing factor under paragraph (c)(2) of this section, if applied), rounded to the fourth decimal place in the case of funds with a $1.0000 share price or an equivalent level of accuracy for funds with a different share price (*e.g.*, $10.000 per share), as of the end of each business day during the preceding six months, which must be updated each business day as of the end of the preceding business day.

(iv) A link to a website of the Securities and Exchange Commission where a user may obtain the most recent 12 months of publicly available information filed by the money market fund pursuant to §270.30b1-7.

(v) For a period of not less than one year, beginning no later than the same business day on which the money market fund files an initial report on Form N-CR (§274.222 of this chapter) in response to the occurrence of any event specified in Part C of Form N-CR, the same information that the money market fund is required to report to the Commission on Part C (Items C.1, C.2, C.3, C.4, C.5, C.6, and C.7) of Form N-CR concerning such event, along with the following statement: “The Fund was required to disclose additional information about this event on Form N-CR and to file this form with

the Securities and Exchange Commission. Any Form N-CR filing submitted by the Fund is available on the EDGAR Database on the Securities and Exchange Commission's internet site at *http://www.sec.gov.*"

(11) *Processing of transactions.*

(i) A government money market fund and a retail money market fund (or its transfer agent) must have the capacity to redeem and sell securities issued by the fund at a price based on the current net asset value per share pursuant to §270.22c-1. Such capacity must include the ability to redeem and sell securities at prices that do not correspond to a stable price per share.

(ii) With respect to each financial intermediary that submits orders, itself or through its agent, to purchase or redeem shares directly to the government money market fund or retail money market fund, its principal underwriter or transfer agent, or to a registered clearing agency, the fund (or on the fund's behalf, the principal underwriter or transfer agent) must either:

(A) Determine that the financial intermediary has the capacity to redeem and sell securities issued by the fund at a price based on the current net asset value per share pursuant to §270.22c-1. Such capacity must include prices that do not correspond to a stable price per share; or

(B) Prohibit the financial intermediary from purchasing in nominee name on behalf of other persons, securities issued by the fund.

(iii) A government money market fund and a retail money market fund must maintain and keep current records identifying the financial intermediaries the fund has determined have the capacity described in paragraph (h)(11)(ii)(A) of this section and the

financial intermediaries for which the fund was unable to make this determination. A fund must preserve a written copy of such records for a period of not less than six years following each identification of a financial intermediary (the first two years in an easily accessible place).

(iv) For purposes of this paragraph (h)(11), the term "financial intermediary" has the same meaning as in §270.22c-2(c)(1).

* * * * *

(j) *Delegation.* The money market fund's board of directors may delegate to the fund's investment adviser or officers the responsibility to make any determination required to be made by the board of directors under this section other than the determinations required by paragraphs (c)(1) (board findings), (c)(2) (swing pricing requirement), (f)(1) (adverse events), (g)(1) and (2) (amortized cost and penny rounding procedures), and (g)(8) (stress testing procedures) of this section.

3. Amend § 270.31a-2 by revising paragraph (a)(2) to read as follows:

§ 270.31a-2 Records to be preserved by registered investment companies, certain majority-owned subsidiaries thereof, and other persons having transactions with registered investment companies

(a) * * *

(2) Preserve for a period not less than six years from the end of the fiscal year in which any transactions occurred, the first two years in an easily accessible place, all books and records required to be made pursuant to paragraphs (b)(5) through (12) of § 270.31a-1 and all vouchers, memoranda, correspondence, checkbooks, bank statements, cancelled checks, cash reconciliations, cancelled stock certificates, and all schedules

evidencing and supporting each computation of net asset value of the investment company shares, including schedules evidencing and supporting each computation of an adjustment to net asset value of the investment company shares based on swing pricing policies and procedures established and implemented pursuant to § 270.22c-1(a)(3) or § 270.2a-7(c)(2), and other documents required to be maintained pursuant to § 270.31a-1(a) and not enumerated in § 270.31a-1(b).

* * * * *

PART 274 — FORMS PRESCRIBED UNDER THE INVESTMENT COMPANY ACT OF 1940

4. The general authority citation for part 274 continues to read as follows:

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.

* * * * *

5. Amend Form N-1A (referenced in §§ 239.15A and 274.11A) by revising Instruction 2(b) to Item 3, Item 4(b)(1)(ii), Item 6(d), and Item 16(g).

Note: The text of Form N-1A does not, and these amendments will not, appear in the Code of Federal Regulations.

Form N-1A

* * * * *

Item 3. Risk/Return Summary: Fee Table

* * * * *

Instructions

* * * * *

2. *Shareholder Fees*

(a) * * *

(b) "Redemption Fee" includes a fee charged for any redemption of the Fund's shares, but does not include a deferred sales charge (load) imposed upon redemption.

* * * * *

Item 4. Risk/Return Summary: Investments, Risks, and Performance

* * * * *

(b) Principal Risks of Investing in the Fund.

(1) Narrative Risk Disclosure.

(i) * * *

(ii)(A) If the Fund is a Money Market Fund that is not a government Money Market Fund, as defined in §270.2a-7(a)(16), or a retail Money Market Fund, as defined in § 270.2a-7(a)(25), include the following statement:

You could lose money by investing in the Fund. Because the share price of the Fund will fluctuate, when you sell your shares they may be worth more or less than what you originally paid for them. Also, the Fund may adjust the price of its shares to reflect the Fund's liquidity costs from net sales of the Fund's shares. If you sell on a day when net sales occur, you may receive less for your shares than the value of the fund's net assets that day. An investment in the Fund is not a bank account and is not insured or guaranteed by the Federal Deposit Insurance Corporation or any other government agency. The Fund's sponsor is not required to reimburse the fund for losses, and you should not expect that the

sponsor will provide financial support to the Fund at any time, including during periods of market stress.

(B) If the Fund is a Money Market Fund that is a government Money Market Fund, as defined in § 270.2a–7(a)(16), or a retail Money Market Fund, as defined in § 270.2a–7(a)(25), include the following statement:

You could lose money by investing in the Fund. Although the Fund seeks to preserve the value of your investment at $1.00 per share, it cannot guarantee it will do so, particularly during periods of market stress. An investment in the Fund is not a bank account and is not insured or guaranteed by the Federal Deposit Insurance Corporation or any other government agency. The Fund's sponsor is not required to reimburse the fund for losses, and you should not expect that the sponsor will provide financial support to the Fund at any time, including during periods of market stress.

Instruction. If an affiliated person, promoter, or principal underwriter of the Fund, or an affiliated person of such a person, has contractually committed to provide financial support to the Fund, and the term of the agreement will extend for at least one year following the effective date of the Fund's registration statement, the statement specified in Item 4(b)(1)(ii)(A) or Item 4(b)(1)(ii)(B) may omit the last sentence ("The Fund's sponsor has no legal obligation to provide financial support to the Fund, and you should not expect that the sponsor will provide financial support to the Fund at any time, including during periods of market stress."). For purposes of this Instruction, the term "financial support" includes any capital contribution, purchase of a security from the Fund in reliance on § 270.17a–

9, purchase of any defaulted or devalued security at par, execution of letter of credit or letter of indemnity, capital support agreement (whether or not the Fund ultimately received support), performance guarantee, or any other similar action reasonably intended to increase or stabilize the value or liquidity of the fund's portfolio; however, the term "financial support" excludes any routine waiver of fees or reimbursement of fund expenses, routine inter-fund lending, routine inter-fund purchases of fund shares, or any action that would qualify as financial support as defined above, that the board of directors has otherwise determined not to be reasonably intended to increase or stabilize the value or liquidity of the fund's portfolio.

* * * * *

Item 6. Purchase and Sale of Fund Shares

* * * * *

(d) If the Fund uses swing pricing, explain the Fund's use of swing pricing; including what swing pricing is, the circumstances under which the Fund will use it, and the effects of swing pricing on the Fund and investors, and provide the upper limit the Fund has set on the swing factor (except a Money Market Fund that uses swing pricing does not need to disclose a swing factor upper limit). With respect to any portion of a Fund's assets that is invested in one or more open-end management investment companies that are registered under the Investment Company Act, the Fund shall include a statement that the Fund's net asset value is calculated based upon the net asset values of the registered open-end management companies in which the Fund invests, and, if applicable,

state that the prospectuses for those companies explain the circumstances under which they will use swing pricing and the effects of using swing pricing.

* * * * *

Item 16. Description of the Fund and Its Investments and Risks

* * * * *

(g) *Money Market Fund Material Events.* If the Fund is a Money Market Fund, disclose, as applicable, any occasion during the last 10 years on which an affiliated person, promoter, or principal underwriter of the Fund, or an affiliated person of such a person, provided any form of financial support to the Fund, including a description of the nature of support, person providing support, brief description of the relationship between the person providing support and the Fund, date support provided, amount of support, security supported (if applicable), and the value of security supported on date support was initiated (if applicable).

Instructions

1. * * *

2. If during the last 10 years, the Fund has participated in one or more mergers with another investment company (a "merging investment company"), provide the information required by Item 16(g) with respect to any merging investment company as well as with respect to the Fund; for purposes of this Instruction, the term "merger" means a merger, consolidation, or purchase or sale of substantially all of the assets between the Fund and a merging investment company. If the person or entity that previously provided financial support to a merging investment company is not currently an affiliated person, promoter, or

principal underwriter of the Fund, the Fund need not provide the information required by Item 16(g) with respect to that merging investment company.

3. The disclosure required by Item 16(g) should incorporate, as appropriate, any information that the Fund is required to report to the Commission on Items C.1, C.2, C.3, C.4, C.5, C.6, and C.7 of Form N-CR [17 CFR 274.222].

4. The disclosure required by Item 16(g) should conclude with the following statement: "The Fund was required to disclose additional information about this event [or "these events," as appropriate] on Form N-CR and to file this form with the Securities and Exchange Commission. Any Form N-CR filing submitted by the Fund is available on the EDGAR Database on the Securities and Exchange Commission's internet site at http://www.sec.gov."

* * * * *

6. Form N-MFP (referenced in § 274.201) is revised to read as follows:

Note: The text of Form N-MFP does not, and these amendments will not, appear in the Code of Federal Regulations.

UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
WASHINGTON, DC 20549

FORM N-MFP

MONTHLY SCHEDULE OF
PORTFOLIO HOLDINGS OF MONEY
MARKET FUNDS

(See instructions following the required
items)
Intentional misstatements or omissions of fact constitute federal and
criminal violations.
See 18 U.S.C. 1001.

General Information

Item 1. Report for: _____

m
m/
dd
/y
yy
y

Item 2. Name of Registrant:

_____

Item 3. CIK Number of Registrant:

_____

Item 4. LEI of Registrant:

_____

Item 5. Name of Series:

_____

Item 6. LEI of Series:

_____

Item 7. EDGAR Series Identifier:

_____

Item 8. Total number of share classes in the series:

_____

Item 9. Do you anticipate that this will be the fund's final filing on Form N-MFP?

[ ] Yes [ ] No

(*If Yes, answer Items 9.a – 9.c.*)

a. Is the fund liquidating? [ ] Yes [ ] No

b. Is the fund merging with, or being acquired by, another fund? [ ] Yes [ ] No

c. If applicable, identify the successor fund by CIK, Securities Act file number, and EDGAR series identifier:

_____

Item 10. Has the fund acquired or merged with another fund since the last filing? [ ] Yes [ ] No

(*If Yes, answer Item 10.a.*)

a. Identify the acquired or merged fund by CIK, Securities Act file number, and EDGAR series identifier:

_____

Item 11. Provide the name, email address, and telephone number of the person authorized to receive information and respond to questions about this Form N-MFP:

Name _____

Email _____

Telephone _____

Part A. Series-Level Information about the Fund

Item A.1. Securities Act File Number.

_____

Item A.2. Investment Adviser.

_____

a. SEC file number of investment adviser.

_____

Item A.3. Sub-Adviser. If a fund has one or more sub-advisers, disclose the name of each sub-adviser.

_____

a. SEC file number of each sub-adviser.

_____

Item A.4. Independent Public Accountant.

_____

a. City and state of independent public accountant.

_____

Item A.5. Administrator. If a fund has one or more administrators, disclose the name of each administrator.

_____

Item A.6. Transfer Agent.

_____

a. CIK Number.

_____

b. SEC file number of transfer agent.

_____

Item A.7. Master-Feeder Funds. Is this a Feeder Fund? [ ] Yes [ ] No (*If Yes, answer Items A.7.a – 7.c.*)

a. Identify the Master Fund by CIK or, if the fund does not have a CIK, by name.

_____

b. Securities Act file number of the Master Fund.

_____

c. EDGAR series identifier of the Master Fund.

_____

Item A.8. Master-Feeder Funds. Is this a Master Fund? [ ] Yes [ ] No (*If Yes, answer Items A.8.a – 8.c.*)

a. Identify all Feeder Funds by CIK or, if the fund does not have a CIK, by name.

_____

b. Securities Act file number of each Feeder Fund.

_____

c. EDGAR series identifier of each Feeder Fund.

Item A.9. Is this series primarily used to fund insurance company separate accounts?

[ ] Yes [ ] No

ItemA.10. Category. Indicate the category that identifies the money market fund from among the following:

[ ] Government [ ]

Prime

[ ] Single State [ ] Other Tax Exempt

a. Is this fund a Retail Money Market Fund? [ ]Yes [ ] No

b. If this is a Government Money Market Fund, does the fund typically invest at least 80% of the value of its assets in U.S. Treasury obligations or repurchase agreements collateralized by U.S. Treasury obligations?

[ ]Yes [ ] No

Item A.11. Dollar-weighted average portfolio maturity ("WAM" as defined in rule 2a-7(d)(1)(ii)).

_____

Item A.12. Dollar-weighted average life maturity ("WAL" as defined in rule 2a-7(d)(1)(iii)). Calculate WAL without reference to the exceptions in rule 2a-7(d) regarding interest rate readjustments.

_____

Item A.13. Liquidity. Provide the following, as of the close of business on each business day of the month reported:

a. Total Value of Daily Liquid Assets to the nearest cent.

_____

b. Total Value of Weekly Liquid Assets (including Daily Liquid Assets) to the nearest cent.

_____

c. Percentage of Total Assets invested in Daily Liquid Assets.

_____

d. Percentage of Total Assets invested in Weekly Liquid Assets (including Daily Liquid Assets).

_____

Item A.14. Provide the following, to the nearest cent:

a. Cash. (*See General Instructions E.*) _____

b. Total Value of portfolio securities. (*See General Instructions E.*)

_____-

i. If any portfolio securities are valued using amortized cost, the total value of the portfolio securities valued at amortized cost.

_____

c. Total Value of other assets (excluding amounts provided in A.14.a–c.)

_____

Item A.15. Total value of liabilities, to the nearest cent.

_____

Item A.16. Net assets of the series, to the nearest cent.

_____

Item A.17. Number of shares outstanding, to the nearest hundredth.

_____

Item A.18. Does the fund seek to maintain a stable price per share? [ ] Yes [ ] No

a. If yes, state the price the fund seeks to maintain.

_____

Item A.19. 7-day gross yield. For each business day, based on the immediately preceding 7 business days, calculate the fund's yield by determining the net change, exclusive of capital changes and income other than investment income, in the value of a hypothetical pre-existing account having a balance of one share at the beginning of the period and dividing the difference by the value of the account at the beginning of the base period to obtain the base period return, and then multiplying the base period return by (365/7) with the resulting yield figure carried to at least the nearest hundredth of one percent. The 7-day gross yield should not reflect a deduction of shareholders fees and fund operating expenses. For master funds and feeder funds, report the 7-day gross yield at the master-fund level.

_____

Item A.20. Net asset value per share. Provide the net asset value per share, calculated

using available market quotations (or an appropriate substitute that reflects current market conditions) and including the application of a Swing Factor, if applied, rounded to the fourth decimal place in the case of a fund with a $1.0000 share price (or an equivalent level of accuracy for funds with a different share price), as of the close of business on each business day of the month reported. _____

Item A.21. Is this Fund established as a cash management vehicle for affiliated funds or other accounts managed by related entities or their affiliates and not available to other investors? [ ] Yes [ ] No

Item A.22. Swing Factor. For a fund that is not a Government Money Market Fund or a Retail Money Market Fund:

a. Provide the number of times the fund applied a Swing Factor during the reporting period. _____

b. For each business day of the month reported, provide the amount of any Swing Factor applied by the fund. If on a single business day the fund applied a Swing Factor during multiple pricing periods (as defined in rule 2a-7(c)(2)(vi)(C)), provide each Swing Factor applied on that day. Report N/A for any business day on which the fund did not apply a Swing Factor. _____

Part B: Class-Level Information about the Fund

For each Class of the Series (regardless of the number of shares outstanding in the Class), disclose the following:

Item B.1. Full name of the Class. _____

Item B.2. EDGAR Class identifier. _____

Item B.3. Minimum initial investment. _____

Item B.4. Net assets of the Class, to the nearest cent. _____

Item B.5. Number of shares outstanding, to the nearest hundredth. _____

Item B.6. Net asset value per share. Provide the net asset value per share, calculated using available market quotations (or an appropriate substitute that reflects current market conditions) and including the application of a Swing Factor, if applied, rounded to the fourth decimal place in the case of a fund with a $1.0000 share price (or an equivalent level of accuracy for funds with a different share price), as of the close of business on each business day of the

month reported. _____

Item B.7. Net shareholder flow. Provide (a) the daily gross subscriptions (including dividend reinvestments) and gross redemptions, rounded to the nearest cent, as of the close of business on each business day of the month reported; and (b) the total gross subscriptions (including dividend reinvestments) and total gross redemptions for the month reported. For purposes of this Item, (i) report gross subscriptions (including dividend reinvestments) and gross redemptions as of the trade date, and (ii) for Master-Feeder Funds, only report the required shareholder flow data at the Feeder Fund level.

_____

Item B.8. 7-day net yield for each business day of the month reported, as calculated under Item 26(a)(1) of Form N-1A (§ 274.11A of this chapter) except based on the 7 business days immediately preceding a given business day.

_____

Item B.9. During the reporting period, did any person pay for or waive all or part of the fund's operating expenses or management fees? [ ] Yes [ ] No

If Yes, answer Item B.9.a.:

a. Total amount of the expense payment or fee waiver, or both (reported in dollars).

_____

Item B.10. For each person who owns of record or is known by the Fund to own beneficially 5% or more of the shares outstanding in the Class, provide the following information. For purposes of this question, if the Fund knows that two or more beneficial owners of the Class are affiliated with each other, treat them as a single beneficial owner when calculating the percentage ownership and identify separately each affiliated beneficial owner and the percentage interest of each affiliated beneficial owner. An affiliated beneficial owner is one that directly or indirectly controls or is controlled by another beneficial owner or is under common control with any other beneficial owner.

a. Name _____

b. Percent of shares outstanding in the Class owned of record _____

c. Percent of shares outstanding in the Class owned beneficially _____

Item B.11. Shareholder Composition. If the fund is not a government money market fund or retail money market fund, identify the percentage of investors within the following categories:

a. Non-Financial corporations: _____

b. Pension plans: _____

c. Non-Profits: _____

d. State or municipal government entities (excluding governmental pension plans): _____

e. Registered investment companies: _____

f. Private funds: _____

g. Depository institutions and other banking institutions: _____

h. Sovereign wealth funds: _____

i. Broker-dealers: _____

j. Insurance companies: _____

k. Other: _____

If *Other*, provide a brief description of the types of investors included in this category. _____

Part C: Schedule of Portfolio Securities

For each security held by the money market fund, disclose the following information. Separately provide the required information for the initial acquisition of a security and any subsequent acquisitions of the security.

Item C.1. The name of the issuer or the name of the counterparty in a repurchase agreement.

_____

Item C.2. The title of the issue.

_____

Item C.3. The CUSIP.

_____

Item C.4. The LEI.

_____

Item C.5. Other identifier. In addition to CUSIP and LEI, provide at least one of the following other identifiers, if available:

a. The ISIN; _____

b. The CIK;_____

c. The RSSD ID; _____ or

d. Other unique identifier. _____

Item C.6. Security acquisition.

a. Provide the trade date on which the fund acquired the security.

_____

mm/dd/yyyy

b. Provide the yield of the security as of the trade date(s).

_____

Item C.7. The category of investment. Indicate the category that most closely identifies the instrument from among the following:

[ ] U.S. Treasury Debt

[ ] U.S. Government Agency Debt (*if categorized as coupon-paying notes)*

[ ] U.S. Government Agency Debt Sub-*coupon discount notes)*

[ ] Non-U.S. Sovereign, *(if categorized as no-*Sovereign and Supra-National Debt

[ ] Certificate of Deposit

[ ] Non-Negotiable Time Deposit

[ ] Variable Rate Demand Note

[ ] Other Municipal Security

[ ] Asset Backed Commercial Paper

[ ] Other Asset Backed Securities

[ ] U.S. Treasury Repurchase Agreement

[ ] U.S. Government Agency

if collateralized only by U.S. Treasuries (including Strips) and cash Government

Repurchase Agreement *collateralized only by U.S.*

Agency securities, U.S. and cash

Treasuries,

[ ] Other Repurchase Agreement Funding

if collateral falls outside Treasury, Government Agency, and cash

[ ] Insurance Company Agreement

[ ] Investment Company Commercial

[ ] Financial Company Paper

[ ] Non-Financial Company Commercial Paper

[ ] Tender Option Bond

[ ] Other Instrument

If *Other Instrument,* include a brief description. _____

Item C.8. If the security is a repurchase agreement, is the fund treating the acquisition of the repurchase agreement as the acquisition of the underlying securities (i.e., collateral) for purposes of portfolio diversification under rule 2a-7?
[ ] Yes [ ] No

Item C.9. For all repurchase agreements, specify whether the repurchase agreement is "open"
(i.e., the repurchase agreement has no specified end date and, by its terms, will be extended or "rolled" each business day (or at another specified period) unless the investor chooses to terminate it), and describe the securities subject to the repurchase agreement (i.e., collateral).

a. Is the repurchase agreement "open"? [ ] Yes [ ] No

b. Is the repurchase agreement centrally cleared? [ ] Yes [ ] No
If *Yes*, provide the name of the central clearing counterparty (CCP).
_____

c. Is the repurchase agreement settled on the triparty platform [ ]Yes [ ] No

d. The name of the collateral issuer. _____

e. LEI. _____

f. The CUSIP. _____

g. Maturity date. _____

h. Coupon or yield. _____

i. The principal amount, to the nearest cent. _____

j. Value of collateral, to the nearest cent. _____

k. The category of investment that most closely represents the collateral, selected from among the following:

[ ] Asset-Backed Securities

[ ] Agency Collateralized Mortgage Obligations

[ ] Agency Debentures and Agency Strips

[ ] Agency Mortgage-Backed Securities

[ ] Private Label Collateralized Mortgage Securities Obligations

[ ] Corporate Debt

[ ] Equities

[ ] Money Market

[ ] U.S. Treasuries (including strips)

[ ] Cash

[ ] Other Instrument. If *Other Instrument*, include a brief description, including, if applicable, whether it is a collateralized debt obligation, municipal debt, whole loan, or international debt.

_____

Item C.10. Is the security an Eligible Security? [ ] Yes [ ] No

Item C.11. Security rating(s) considered. Provide each rating assigned by any NRSRO that the fund's board of directors (or its delegate) considered in determining that the security presents minimal credit risks (together with the name of the assigning NRSRO). If none, leave blank.

_____

Item C.12. The maturity date determined by taking into account the maturity shortening provisions of rule 2a-7(i) (i.e., the maturity date used to calculate WAM under rule 2a-7(d)(1)(ii)).

_____
mm/dd/yyyy

Item C.13. The maturity date determined without reference to the exceptions in rule 2a-7(i) regarding interest rate readjustments (i.e., the maturity date used to calculate WAL under rule 2a-7(d)(1)(iii)).

_____
mm/dd/yyyy

Item C.14. The maturity date determined without reference to the maturity shortening provisions of rule 2a-7(i) (i.e., the ultimate legal maturity date on which, in accordance with the terms of the security without regard to any interest rate readjustment or demand feature, the principal amount must unconditionally be paid).

_____
mm/dd/yyyy

Item C.15. Does the security have a Demand Feature on which the fund is relying to determine the quality, maturity or liquidity of the security? [ ] Y [ ] N *If Yes, answer Items C.15.a – 15.e. Where applicable, provide the information required in Items C.15.b-15.e in the order that each Demand Feature issuer was reported in Item C.15.a.*

a. The identity of the Demand Feature issuer(s).
_____

b. The amount (i.e., percentage) of fractional support provided by each Demand Feature issuer.
_____

c. The period remaining until the principal amount of the security may be recovered through the Demand Feature.
_____

d. Is the demand feature conditional? [ ] Yes [ ] No

e. Rating(s) considered. Provide each rating assigned to the demand feature(s) or demand feature provider(s) by any NRSRO that the board of directors (or its delegate) considered in evaluating the quality, maturity or liquidity of the security (together with the name of the assigning NRSRO). If none, leave blank. _____

Item C.16. Does the security have a Guarantee (other than an unconditional letter of credit disclosed in item C.14 above) on which the fund is relying to determine the quality, maturity or liquidity of the security? [ ] Yes [ ] No

If Yes, answer Items C.16.a – 16.c. Where applicable, provide the information required in Item C.16.b – 16.c in the order that each Guarantor was reported in Item C.16.a.

a. The identity of the Guarantor(s).

_____

b. The amount (i.e., percentage) of fractional support provided by each Guarantor.

_____

c. Rating(s) considered. Provide each rating assigned to the guarantee(s) or guarantor(s) by any NRSRO that the board of directors (or its delegate) considered in evaluating the quality, maturity or liquidity of the security (together with the name of the assigning NRSRO). If none, leave blank.

_____

Item C.17. Does the security have any enhancements, other than those identified in Items C.14 and C.15 above, on which the fund is relying to determine the quality, maturity or liquidity of the security?

[ ] Yes [ ] No *If Yes, answer Items C.17.a – 17.d. Where applicable, provide the information required in Items C.17.b – 17.d in the order that each enhancement provider was reported in Item C.17.a.*

a. The identity of the enhancement provider(s).

_____

b. The type of enhancement(s).

_____

c. The amount (i.e., percentage) of fractional support provided by each enhancement provider.

_____

d. Rating(s) considered. Provide each rating assigned to the enhancement(s) or enhancement provider(s) by any NRSRO that the board of directors (or its delegate) considered in evaluating the quality, maturity or liquidity of the security (together with the name of the assigning NRSRO). If none, leave blank.

_____

Item C.18. The yield of the security as of the reporting date. _____

Item C.19. The total Value of the fund's position in the security, to the nearest cent: (*See General Instruction E.*)

_____

a. *Including* the value of any sponsor support: _____

b. *Excluding* the value of any sponsor support: _____

Item C.20. The percentage of the money market fund's net assets invested in the security, to the nearest hundredth of a percent.

_____%

Item C.21. Is the security categorized at level 3 in the fair value hierarchy under U.S. Generally Accepted Accounting Principles (*ASC 820, Fair Value Measurement*)?

[ ] Yes [ ] No

Item C.22. Is the security a Daily Liquid Asset? [ ] Yes [ ] No

Item C.23. Is the security a Weekly Liquid Asset? [ ] Yes [ ] No

Item C.24. Is the security an Illiquid Security? [ ] Yes [ ] No

Item C.25. Explanatory notes. Disclose any other information that may be material to other disclosures related to the portfolio security. If none, leave blank.

Part D. Disposition of Portfolio Securities

Item D.1. Disclose the amount of portfolio securities the money market fund sold or disposed of during the reporting period by category of investment. Do not include portfolio securities that the fund held until maturity. A money market fund that is a government money market fund or a tax exempt fund, as defined in rule 2a-7(a)(23) [17 CFR 270.2a-7(a)(23)], is not required to respond to Part D.

a. U.S. Treasury Debt, to the nearest cent.

_____

b. U.S. Government Agency Debt (if categorized as coupon-paying notes), to the nearest cent.

_____

c. U.S. Government Agency Debt (if categorized as no-coupon discount notes), to the nearest cent.

_____

d. Non-U.S. Sovereign, Sub-Sovereign and Supra-National Debt, to the nearest cent.

_____

e. Certificate of Deposit, to the nearest cent.

_____

f. Non-Negotiable Time Deposit, to the nearest cent.

_____

g. Variable Rate Demand Note, to the nearest cent.

_____

h. Other Municipal Security, to the nearest cent.

_____

i. Asset Backed Commercial Paper, to the nearest cent.

_____

j. Other Asset Backed Securities, to the nearest cent.

_____

k. U.S. Treasury Repurchase Agreement (if collateralized only by U.S. Treasuries (including Strips) and cash), to the nearest cent.

_____

l. U.S. Government Agency Repurchase Agreement (collateralized only by U.S. Government Agency securities, U.S. Treasuries, and cash), to the nearest cent. _____

m. Other Repurchase Agreement (if collateral falls outside Treasury, Government Agency, and cash), to the nearest cent.

_____

n. Insurance Company Funding Agreement, to the nearest cent.

_____

o. Investment Company, to the nearest cent.

_____

p. Financial Company Commercial Paper, to the nearest cent.

_____

q. Non-Financial Company Commercial Paper, to the nearest cent.

_____

r. Tender Option Bond, to the nearest cent.

_____

s. Other Instrument, to the nearest cent.

_____

If *Other Instrument*, include a brief description

_____

SIGNATURES

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

_____
(Registrant)

_____
mm/dd/yy

_____
(Signature)

_____ _____
Name Title

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

U.S. SECURITIES AND EXCHANGE COMMISSION
Washington, DC 20549

FORM N-MFP
MONTHLY SCHEDULE OF PORTFOLIO HOLDINGS OF MONEY MARKET FUNDS

Form N-MFP is to be used by registered open-end management investment companies, or series thereof, that are regulated as money market funds pursuant to rule 2a-7 under the Investment Company Act of 1940 ("Act") (17 CFR 270.2a-7) ("money market funds"), to file reports with the Commission pursuant to rule 30b1-7 under the Act (17 CFR 270.30b1-7). The Commission may use the information provided on Form N-MFP in its regulatory, disclosure review, inspection, and policymaking roles.

General Instructions

A. Rule as to Use of Form N-MFP

Form N-MFP is the public reporting form that is to be used for monthly reports of money market funds required by section 30(b) of the Act and rule 30b1-7 under the Act (17 CFR 270.30b1-7). A money market fund must report information about the fund and its

portfolio holdings as of the last business day or any subsequent calendar day of the preceding month. The Form N-MFP must be filed with the Commission no later than the fifth business day of each month, but may be filed any time beginning on the first business day of the month. Each money market fund, or series of a money market fund, is required to file a separate form. If the money market fund does not have any classes, the fund must provide the information required by Part B for the series. A money market fund is not required to respond to an item that is wholly inapplicable. If an item requests information that is not applicable (for example, a company does not have an LEI), respond N/A.

A money market fund may file an amendment to a previously filed Form N-MFP at any time, including an amendment to correct a mistake or error in a previously filed form. A fund that files an amendment to a previously filed form must provide information in response to all items of Form N-MFP, regardless of why the amendment is filed.

B. Application of General Rules and Regulations

The General Rules and Regulations under the Act contain certain general requirements that are applicable to reporting on any form under the Act. These general requirements should be carefully read and observed in the preparation and filing of reports on this form, except that any provision in the form or in these instructions shall be controlling.

C. Filing of Form N-MFP

A money market fund must file Form N-MFP in accordance with rule 232.13 of Regulation S-T. Form N-MFP must be filed electronically using the Commission's EDGAR system.

D. Paperwork Reduction Act Information

A registrant is not required to respond to the collection of information contained in Form N-MFP unless the Form displays a currently valid Office of Management and Budget ("OMB") control number. Please direct comments concerning the accuracy of the information collection burden estimate and any suggestions for reducing the burden to the Secretary, Securities and Exchange Commission, 100 F Street, NE, Washington, DC 20549-1090.

The OMB has reviewed this collection of information under the clearance requirements of 44 U.S.C. 3507.

E. Definitions

References to sections and rules in this Form N-MFP are to the Investment Company Act of 1940 [15 U.S.C. 80a] (the "Investment Company Act"), unless otherwise indicated. Terms used in this Form N-MFP have the same meaning as in the

Investment Company Act or related rules, unless otherwise indicated.

As used in this Form N-MFP, the terms set out below have the following meanings:

"Cash" means demand deposits in depository institutions and cash holdings in custodial accounts.

"Class" means a class of shares issued by a Multiple Class Fund that represents interests in the same portfolio of securities under rule 18f-3 [17 CFR 270.18f-3] or under an order exempting the Multiple Class Fund from sections 18(f), 18(g), and 18(i) [15 U.S.C. 80a-18(f), 18(g), and 18(i)].

"Fund" means the Registrant or a separate Series of the Registrant. When an item of Form N-MFP specifically applies to a Registrant or a Series, those terms will be used.

"Government Money Market Fund" means a money market fund as defined in 17 CFR 270.2a-7(a)(14).

"LEI" means, with respect to any company, the "legal entity identifier" assigned by or on behalf of an internationally recognized standards setting body and required for reporting purposes by the U.S. Department of the Treasury's Office of Financial Research or a financial regulator.

"Master-Feeder Fund" means a two-tiered arrangement in which one or more Funds (or registered or unregistered pooled investment vehicles) (each a "Feeder Fund") holds shares of a single Fund (the "Master Fund") in accordance with section 12(d)(1)(E) [15 U.S.C. 80a-12(d)(1)(E)].

''Money Market Fund'' means a registered open-end management investment company, or series thereof, that is regulated as a money market fund pursuant to rule 2a–7 (17 CFR 270.2a–7) under the Investment Company Act of 1940.

"Retail Money Market Fund" means a money market fund as defined in 17 CFR 270.2a-7(a)(21).

"RSSD ID" means the identifier assigned by the National Information Center of the Board of Governors of the Federal Reserve System, if any.

"Securities Act" means the Securities Act of 1933 [15 U.S.C. 77a - aa].

"Series" means shares offered by a Registrant that represent undivided interests in a portfolio of investments and that are preferred over all other series of shares for assets specifically allocated to that series in accordance with rule 18f-2(a) [17 CFR 270.18f-2(a)].

"Swing Factor" means a swing factor as defined in 17 CFR 270.2a-70(c)(2)(vi)(D).

"Value" has the meaning defined in section 2(a)(41) of the Act (15 U.S.C. 80a-2(a)(41)).

7. Amend Form N-CR (referenced in § 274.222) by:

a. Revising the General Instructions in Sections A, C, D, and F and revising Parts A and C;

b. Removing Parts E, F, and G and replacing them with new Part E; and

c. Redesignating Part H to Part F.

The revisions read as follows:

Note: The text of Form N-CR does not, and these amendments will not, appear in the Code of Federal Regulations.

FORM N-CR

* * * * *

GENERAL INSTRUCTIONS

A. Rule as to Use of Form N-CR

Form N-CR is the public reporting form that is to be used for current reports of money market funds required by section 30(b) of the Act and rule 30b1-8 under the Act. A money market fund must file a report on Form N-CR upon the occurrence of any one or more of the events specified in Parts B – F of this form. Unless otherwise specified, a report is to be filed within one business day after occurrence of the event. A report will be made public immediately upon filing. If the event occurs on a Saturday, Sunday, or holiday on which the Commission is not open for business, then the report is to be filed on the first business day thereafter.

* * * * *

C. Information to Be Included in Report Filed on Form N-CR

Upon the occurrence of any one or more of the events specified in Parts B – F of

Form N-CR, a money market fund must file a report on Form N-CR that includes information in response to each of the items in Part A of the form, as well as each of the items in the applicable Parts B – F of the form.

D. Filing of Form N-CR

A money market fund must file Form N-CR in accordance with rule 232.13 of Regulation S-T. Reports on Form N-CR must be filed electronically using the Commission's Electronic Data Gathering, Analysis, and Retrieval ("EDGAR") system in accordance with Regulation S-T. Consult the EDGAR Filer Manual and Appendices for EDGAR filing instructions.

* * * * *

F. Definitions

References to sections and rules in this Form N-CR are to the Investment Company Act (15 U.S.C 80a), unless otherwise indicated. Terms used in this Form N-CR have the same meaning as in the Investment Company Act or rule 2a-7 under the Investment Company Act, unless otherwise indicated.

In addition, the following definitions apply:

"Fund" means the registrant or a separate series of the registrant.

"LEI" means, with respect to any company, the "legal entity identifier" as assigned by a utility endorsed by the Global LEI Regulatory Oversight Committee or accredited by the Global LEI Foundation.

"Registrant" means the investment company filing this report or on whose behalf the report is filed.

"Series" means shared offered by a Registrant that represent undivided interests in a portfolio of investments and that are preferred over all other series of shares for

assets specifically allocated to that series in accordance with rule 18f-2(a) (17 CFR 270.18f-2(a)).

* * * * *

Part A: General information

Item A.1	Report for [mm/dd/yyyy].
Item A.2	Name of registrant.
Item A.3	CIK Number of registrant.
Item A.4	LEI of registrant.
Item A.5	Name of series.
Item A.6	EDGAR Series Identifier.
Item A.7	LEI of series.
Item A.8	Securities Act File Number.
Item A.9	Provide the name, email address, and telephone number of the person authorized to receive information and respond to questions about this Form N-CR.

* * * * *

Part C: Provision of financial support to fund

If an affiliated person, promoter, or principal underwriter of the fund, or an affiliated person of such a person, provides any form of financial support to the fund (including any (i) capital contribution, (ii) purchase of a security from the fund in reliance on § 270.17a-9, (iii) purchase of any defaulted or devalued security at par, (iv) execution of letter of credit or letter of indemnity, (v) capital support agreement (whether or not the fund ultimately received support), (vi) performance guarantee, or (vii) any other similar action

reasonably intended to increase or stabilize the value or liquidity of the fund's portfolio; excluding, *however*, any (i) routine waiver of fees or reimbursement of fund expenses, (ii) routine inter-fund lending (iii) routine inter-fund purchases of fund shares, or (iv) any action that would qualify as financial support as defined above, that the board of directors has otherwise determined not to be reasonably intended to increase or stabilize the value or liquidity of the fund's portfolio), disclose the following information:

Item C.1 Description of nature of support.

Item C.2 Person providing support.

Item C.3 Brief description of relationship between the person providing support and the fund.

Item C.4 Date support provided.

Item C.5 Amount of support.

Item C.6 Security supported (if applicable). Disclose the name of the issuer, the title of the issue (including coupon or yield, if applicable), at least two identifiers, if available (*e.g.*, CUSIP, ISIN, CIK, LEI), and the date the fund acquired the security.

Item C.7 Value of security supported on date support was initiated (if applicable).

Item C.8 Brief description of reason for support.

Item C.9 Term of support.

Item C.10 Brief description of any contractual restrictions relating to support.

Instruction. If an affiliated person, promoter, or principal underwriter of the fund, or an affiliated person of such a person, purchases a security from the fund in reliance on § 270.17a-9, the fund must provide the purchase price of the security in responding to Item

C.6.

A report responding to Items C.1 through C.7 is to be filed within one business day after occurrence of an event contemplated in this Part C. An amended report responding to Items C.8 through C.10 is to be filed within four business days after occurrence of an event contemplated in this Part C.

* * * * *

Part E: Liquidity threshold events

If a fund has invested less than: (i) 25% of its total assets in weekly liquid assets or (ii) 12.5% of its total assets in daily liquid assets, disclose the following information:

Item E.1 Initial date on which the fund invested less than 25% of its total assets in weekly liquid assets, if applicable.

Item E.2 Initial date on which the fund invested less than 12.5% of its total assets in daily liquid assets, if applicable.

Item E.3 Percentage of the fund's total assets invested in both weekly liquid assets and daily liquid assets as of any dates reported in Items E.1 or E.2.

Item E.4 Brief description of the facts and circumstances leading to the fund investing less than 25% of its total assets in weekly liquid assets or less than 12.5% of its total assets in daily liquid assets, as applicable.

Instruction. A report responding to Items E.1, E.2, and E.3 is to be filed within one business day after occurrence of an event contemplated in this Part E. An amended report responding to Item E.4 is to be filed within four business days after occurrence of an event contemplated in this Part E.

Part F: Optional disclosure

If a fund chooses, at its option, to disclose any other events or information not otherwise required by this form, it may do so under this Item F.1.

Item F.1 Optional disclosure.

Instruction. Item F.1 is intended to provide a fund with additional flexibility, if it so chooses, to disclose any other events or information not otherwise required by this form, or to supplement or clarify any of the disclosures required elsewhere in this form. Part F does not impose on funds any affirmative obligation. A fund may file a report on Form N-CR responding to Part F at any time.

* * * * *

By the Commission.

Dated: December 15, 2021.

Vanessa A. Countryman,

Secretary.

[FR Doc. 2021-27532 Filed: 2/7/2022 8:45 am; Publication Date: 2/8/2022]