The Broken Buck Stops Here: Embracing Sponsor Support in Money Market Fund Reform

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I am grateful to Jeff Gordon, Laura Merianos, Heidi Stam, David Skeel, Jennifer Taub, and participants at Georgetown's Financial Regulatory Camp for helpful comments on earlier drafts.

Abstract

Since the 2008 financial crisis, in which the Reserve Primary Fund "broke the buck," money market funds (MMFs) have been the subject of ongoing policy debate. Many commentators view MMFs as a key contributor to the crisis because widespread redemption demands during the days following the Lehman bankruptcy contributed to a freeze in the credit markets. In response, MMFs were deemed a component of the nefarious shadow banking industry and targeted for regulatory reform. The Securities and Exchange Commission's (SEC) misguided 2014 reforms responded by potentially exacerbating MMF fragility while potentially crippling large segments of the MMF industry. Determining the appropriate approach to MMF reform has been difficult. Banks regulators supported requiring MMFs to trade at a floating net asset value (NAV) rather than a stable $1 share price. By definition, a floating NAV prevents MMFs from breaking the buck but is unlikely to eliminate the risk of large redemptions in a time of crisis. Other reform proposals have similar shortcomings. More fundamentally, the SEC's reforms may substantially reduce the utility of MMFs for many investors, which could, in turn, affect the availability of short term credit. The shape of MMF reform has been influenced by a turf war among regulators as the SEC has battled with bank regulators both about the need for additional reforms and about the structure and timing of those reforms. Bank regulators have been influential in shaping the terms of the debate by using banking rhetoric to frame the narrative of MMF fragility. This rhetoric masks a critical difference between banks and MMFs – asset segregation. Unlike banks, MMF sponsors have assets and operations that are separate from the assets of the MMF itself. This difference has caused the SEC to mistake sponsor support as a weakness rather than a key stability-enhancing feature. As a result, the SEC mistakenly adopted reforms that burden sponsor support instead of encouraging it. As this article explains, required sponsor support offers a novel and simple regulatory solution to MMF fragility. Accordingly this article proposes that the SEC require MMF sponsors explicitly to guarantee the $1 share price. Taking sponsor support out of the shadows embraces rather than ignores the advantage that MMFs offer over banks through asset partitioning. At the same time, sponsor support harnesses market discipline as a constraint against MMF risktaking and moral hazard.

Keywords: regulation of financial markets, banking regulation, securities law and regulation, money market funds, mutual funds, MMFs, SEC, securities, net asset value, financial crisis, shadow banking, systemic risk, financial crisis

JEL Classifications: G01, G23, K22

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THE BROKEN BUCK STOPS HERE: EMBRACING SPONSOR SUPPORT IN MONEY MARKET FUND REFORM*

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Since the 2008 financial crisis, in which the Reserve Primary Fund ("Reserve Fund") "broke the buck," money market funds ("MMFs") have been the subject of ongoing policy debate. Many commentators view MMFs as a key contributor to the crisis because widespread redemption demands during the days following the Lehman bankruptcy contributed to a freeze in the credit markets. In response, MMFs were deemed a component of the nefarious shadow banking industry and targeted for regulatory reform. The Securities and Exchange Commission's ("SEC") misguided 2014 reforms responded by potentially exacerbating MMF fragility while potentially crippling large segments of the MMF industry.

Determining the appropriate approach to MMF reform has been difficult. Bank regulators supported requiring MMFs to trade at a floating net asset value ("NAV") rather than a stable $1 share price. By definition, a floating NAV prevents MMFs from breaking the buck but is unlikely to eliminate the risk of large redemptions in a time of crisis. Other reform proposals have similar shortcomings. More fundamentally, the SEC's reforms may substantially reduce the utility of MMFs for many investors, which could, in turn, affect the availability of short-term credit.

The shape of MMF reform has been influenced by a turf war among regulators as the SEC has battled with bank regulators about the need for additional reforms and about the structure and timing of those reforms. Bank regulators have been influential in shaping the terms of the debate by using banking rhetoric to frame the narrative of MMF fragility. This rhetoric masks a critical difference between banks and MMFs—asset

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segregation. Unlike banks, MMF sponsors have assets and operations that are separate from the assets of the MMF itself. This difference has caused the SEC to mistake sponsor support as a weakness rather than a key stability-enhancing feature. As a result, the SEC adopted reforms that burden sponsor support instead of encouraging it.

As this Article explains, required sponsor support offers a novel and simple regulatory solution to MMF fragility. Accordingly, this Article proposes that the SEC require MMF sponsors explicitly to guarantee the $1 share price. Taking sponsor support out of the shadows embraces, rather than ignores, the advantage that MMFs offer over banks through asset partitioning. At the same time, sponsor support harnesses market discipline as a constraint against MMF risk-taking and moral hazard.

INTRODUCTION

On September 16, 2008, the Reserve Fund broke the buck. The Reserve Fund, which held $785 million in Lehman Brothers debt,

reduced its NAV[1] to 97 cents per share after the announcement of Lehman's bankruptcy filing caused the board to write down the value of the Lehman debt to zero.[2]

By September 16, 2008, the financial markets had already experienced substantial turbulence. Contributing to this turbulence were the bailout of Bear Stearns,[3] the federal government's decision to put Fannie Mae and Freddie Mac into conservatorship,[4] the Federal Reserve Board's announcement of its decision to support AIG financially,[5] and the Lehman bankruptcy.[6] Many MMF sponsors provided support to their MMFs to maintain the stable $1 share price by taking actions like buying debt holdings that had declined in market value.[7] Nonetheless, over the next several days, investors redeemed substantial amounts of money from MMFs.[8] According to the SEC, "During the week of September 15, 2008 [("Lehman week")], investors withdrew approximately $300 billion from prime [MMFs]."[9]

1. NAV is the net asset value of a share of an MMF. *See* Jill Fisch & Eric Roiter, *A Floating NAV for Money Market Funds: Fix or Fantasy?*, 2012 U. ILL. L. REV. 1003, 1008 (explaining calculation of NAV).

2. Diya Gullapalli, Shefali Anand & Daisy Maxey, *Money Fund*, *Hurt by Debt Tied to Lehman*, *Breaks the Buck*, WALL ST. J. (Sept. 17, 2008), http://online.wsj.com/article/SB122160102128644897.html.

3. *See generally* Matthew Goldstein, *Bear Stearns' Big Bailout*, BLOOMBERG BUSINESSWEEK (Mar. 14, 2008), http://www.businessweek.com/stories/2008-03-14/bear-stearns-big-bailoutbusinessweek-business-news-stock-market-and-financial-advice (describing the terms of the bailout of Bear Stearns by the U.S. Government and JPMorgan Chase).

4. *See generally* Fed. Hous. Fin. Auth., *FHFA As Conservator of Fannie Mae and Freddie Mac*, http://www.fhfa.gov/Conservatorship/Pages/History-of-Fannie-Mae--Freddie-Conservatorships.aspx (last visited Apr. 10, 2014) (explaining the decision of the Federal Housing Finance Authority ("FHFA") to place Fannie Mae and Freddie Mac into conservatorship on September 6, 2008).

5. The Federal Reserve issued a press release announcing this support at 9:00 PM on September 16, 2008. *See* Press Release, Bd. of Governors of the Fed. Reserve Sys. (Sept. 16, 2008, 9:00 PM), http://www.federalreserve.gov/newsevents/press/other/20080916a.htm

6. *See* Andrew Ross Sorkin, *Lehman Files for Bankruptcy; Merrill Is Sold*, N.Y. TIMES (Sept. 15, 2008), http://www.nytimes.com/2008/09/15/business/15lehman.html?pagewanted=all&_r=0 (reporting on Lehman's bankruptcy filing as well as the sale of Merrill Lynch to Bank of America).

7. Gullapalli, Anand & Maxey, *supra* note 2.

8. Div. of Risk, Strategy, & Fin. Innovation, *Response to Questions Posed by Commissioners Aguilar*, *Paredes*, *and Gallagher*, U.S. SEC. & EXCH. COMM'N 7 (Nov. 30, 2012), http://www.sec.gov/news/studies/2012/money-market-funds-memo-2012.pdf [hereinafter SEC Staff Report]. The redemptions were concentrated in prime MMFs, which invest primarily in nongovernment securities such as commercial paper. A substantial percentage of the redeemed assets were reinvested in Treasury and government funds. *See id.*

9. Money Market Fund Reform; Amendments to Form PF, 78 Fed. Reg. 36,834, 36,843–44 (proposed June 19, 2013) (to be codified at 17 C.F.R. pts. 210, 230, 239, 270, 274,

Widespread redemptions put more MMFs at risk of breaking the buck, but they also had a broader effect. Fund managers began to retain increased quantities of cash in their portfolios rather than continuing to invest in order to provide a liquidity cushion to meet the demands of further redemptions.[10] Because MMFs form a substantial proportion of the buyers of commercial paper, repurchase agreements, and other types of short-term debt instruments, the withdrawal of capital reduced the availability of short-term credit.[11] Tightening credit conditions caused businesses to reduce capital expenditures and lay off workers.[12]

Although the story of the Reserve Fund has ended in that its assets have been liquidated and distributed to investors,[13] the effect has lingered on. Policymakers viewed the fragility of MMFs as a substantial cause of the financial crisis.[14] Deemed a component of the nefarious shadow banking industry,[15] MMFs were targeted for regulatory reform.[16] The central goal of reform proposals was to prevent MMFs from breaking the buck in the future[17] because of the

& 279) [hereinafter 2013 Rule Proposal]. During the "Crisis Month," which ran from September 2, 2008 until October 7, 2008, "prime fund assets fell by $498 billion (24 percent)." SEC Staff Report, *supra* note 8, at 7.

10. *See* 2013 Rule Proposal, *supra* note 9, at 36,844.

11. *See* Fed. Open Mkt. Comm., *Minutes of the Federal Open Market Committee, October 28-29, 2008*, FED. RESERVE BD. 5, http://www.federalreserve.gov/monetarypolicy/files/fomcminutes20081029.pdf (last visited Jan. 17, 2015). As the Federal Reserve noted, a substantial number of other economic factors adversely impacted the short-term credit markets during this time period. *Id.* at 3–4.

12. *Id.* at 8.

13. Investors in the Reserve Primary Fund ultimately collected more than 99 cents on the dollar. *See* Fisch & Roiter, *supra* note 1, at 1004.

14. *See, e.g.*, Arthur Levitt, *SEC Missed Chance on Money Funds, Should Step Aside Now*, BLOOMBERG (Feb. 25, 2013), http://www.bloomberg.com/news/print/2013-02-25/sec-missed-chance-on-money-funds-should-step-aside-now.html ("[MMFs] were at the heart of the 2008 financial crisis"). Arthur Levitt was Chair of the SEC from 1993 to 2000. *Id.*

15. *See, e.g.*, Sheila Bair, *Beware of Money Market Funds*, TIME MONEY (May 23, 2013), http://money.cnn.com/2013/06/01/pf/money-market-funds.moneymag/index.html (warning of the dangers of MMFs as part of the "shadow banks"). Sheila Bair was Chair of the Federal Deposit Insurance Corporation ("FDIC") from 2006 to 2011. *Id.*

16. *See, e.g.*, Cent. Banking Newsdesk, *Fed's Tarullo Calls for Prompt Action to Regulate Shadow Banking*, CENTRALBANKING.COM (June 13, 2012), http://www.centralbanking.com/central-banking/news/2184154/fed-s-tarullo-calls-prompt-action-regulate-shadow-banking (identifying greater regulation of MMFs as one of the immediate steps that regulators should take to address the shadow banking industry).

17. *See* SEC Staff Report, *supra* note 8, at 18. *But cf. id.* at 36–37 (concluding, based on Monte Carlo simulations, that the 2010 regulatory reforms would not have prevented the Reserve Primary Fund from breaking the buck); 2013 Rule Proposal, *supra* note 9, at 36,834, 36,848 (explaining that "[t]he RSFI Study concludes that the 2010 reforms would have been unlikely to prevent a fund from breaking the buck when faced with large credit losses like the ones experienced in 2008").

concern that breaking the buck would generate "runs." Regulators warned that these runs would produce contagion across MMFs generally and lead to systemic effects on the economy.[18] As Treasury Secretary Timothy Geithner explained: "[T]he financial crisis of 2007–2008 demonstrated that MMFs are susceptible to runs and can be a source of financial instability with serious implications for broader financial markets and the economy."[19]

The dominant reform proposal was to require that MMFs move to a floating NAV rather than a stable $1 share price, which, by definition, would prevent funds from breaking the buck.[20] Although bank regulators favored a floating NAV, members of the SEC were skeptical. In 2012, then-Chair Mary Schapiro attempted to adopt a rule requiring a floating NAV for all MMFs but was unable to persuade her fellow Commissioners to support the reform.[21] Bank regulators increased their pressure subsequent to Schapiro's announcement and, on July 23, 2014, the SEC adopted a compromise rule requiring a floating NAV only for institutional prime MMFs and implementing a variety of additional regulatory requirements for other MMFs, including a complex structure of gates and fees for retail MMFs.[22]

Throughout the six-year debate, proposals for MMF reform have been widely unsatisfactory, and the SEC's new rule is no exception.[23] The required floating NAV may eliminate the viability of prime MMFs as an investment option and reduce the size of the short-term credit markets in the future.[24] At the same time, there are compelling

18. 2013 Rule Proposal, *supra* note 9, at 36,848 (explaining that the RSFI study supports the conclusion that further regulatory reforms are necessary to address concerns over heavy redemptions and their potential contagion effects).

19. Letter from Timothy F. Geithner, Sec'y, U.S. Dep't of the Treasury, to Members of the Fin. Stability Oversight Council 1 (Sept. 27, 2012) [hereinafter Geithner Letter], *available at* http://www.treasury.gov/connect/blog/Documents/Sec.Geithner.Letter.To.FSOC.pdf.

20. *See* 2013 Rule Proposal, *supra* note 9, at 36,849 (describing the proposal to require a floating NAV).

21. Mary L. Schapiro, Chairman, U.S. Sec. & Exch. Comm'n, Statement on Money Market Fund Reform (Aug. 22, 2012), http://www.sec.gov/News/PressRelease/Detail/PressRelease/1365171484078#.VSgRafnF_mc [hereinafter Schapiro Statement].

22. Money Market Fund Reform; Amendments to Form PF, 79 Fed. Reg. 47,736, 47,736 (Aug. 4, 2014) (to be codified at 17 C.F.R. pts. 230, 239, 270, 274, 279) [hereinafter 2014 Final Rule]; *see infra* Part III (describing and evaluating the 2014 Final Rule).

23. *See, e.g.*, Jesse Eisinger, *Mary Jo White Was Supposed to Turn Around the S.E.C. She Hasn't*, PROPUBLICA (Aug. 13, 2014), http://www.propublica.org/thetrade/item/mary-jo-white-was-supposed-to-turn-around-the-s.e.c.-she-hasnt ("After years of rule-making negotiations . . . the agency finally came up with a rule. But it's a bad one.").

24. *See, e.g.*, Comment Letter from Inv. Co. Inst. to the Fin. Stability Oversight Council 67 (Jan. 24, 2013), *available at* http://www.ici.org/pdf/13_fsoc_mmf_recs.pdf (explaining how a floating NAV would harm the short-term credit markets).

reasons to question whether retail funds could ever employ gates and fees without signing their own death warrants. Neither aspect of the reform responds in a meaningful manner to the problem of large redemptions in a time of financial distress.[25]

The debate over money market reform goes further than the issue of how best to regulate a particular financial product. Situated at the crossroads of two powerful interest groups—banks and the mutual fund industry—MMF regulation illustrates a fault line in financial market regulation.[26] The battle over MMF reform pitted the banking industry and its regulators against the SEC and the powerful Investment Company Institute ("ICI").[27] Both sides were cognizant of the stakes involved in the future of a $3 trillion industry.[28] Reform was possible only because of the SEC's vast concession to allow the operation of retail MMFs to proceed largely unchanged, a concession that divided the mutual fund industry and won the SEC the support of the large retail-oriented MMF sponsors including Schwab, Fidelity, and Vanguard.[29]

Politics has pressured the SEC to take a flawed approach to MMF reform and to overlook a simple and superior regulatory solution. The rhetoric that describes MMFs as shadow banks and analogizes MMF redemptions to bank runs has obscured a critical structural difference between MMFs and bank accounts: the

25. *See id.* at 61 ("Where the Commission once appeared to have an unrealistic goal for money market fund reform—namely, eliminating any possibility of a run—there is now an acknowledgement that such a goal is impossible.").

26. *See* Daniel M. Gallagher, Comm'r, U.S. Sec. & Exch. Comm'n, Remarks at "The SEC Speaks in 2013" (Feb. 22, 2013), http://www.sec.gov/News/Speech/Detail/Speech/1365171492342#.U4Ypi6PD8-U ("Capital markets regulators and bank regulators have drastically different missions and oversee fundamentally different markets and market participants."). The conflict also highlighted the ambiguous role of the newest financial regulator, the Financial Stability Oversight Council ("FSOC"), in overseeing policy decisions by other financial regulators. *See id.* (questioning efforts by FSOC to dictate the terms of MMF regulation).

27. *See, e.g.*, Levitt, *supra* note 14 (stating that the SEC would have adopted structural reforms but-for industry interference).

28. *See* 2014 Final Rule, *supra* note 22, at 47,736–37 (reporting that, as of February 28, 2014, MMFs collectively held over $3 trillion in assets).

29. *See* Trevor Hunnicutt, *SEC Passes Money Fund Rules—but Wait, the Buck Could Still Break*, INVESTMENT NEWS (July 23, 2014, 12:41 PM), http://www.investmentnews.com/article/20140723/FREE/140729961/sec-passes-money-fund-rules-but-wait-the-buck-could-still-break (explaining that retail funds sold by firms such as Schwab, Fidelity, and Vanguard will be exempt from the "main thrust" of the MMF reforms). The big loser in the compromise was Federated, the third largest MMF sponsor, which offers primarily institutional prime MMFs. Christopher Condon, *Federated Most Vulnerable to SEC Money Fund Proposals*, BLOOMBERG (Apr. 29, 2014), http://www.bloomberg.com/news/2014-04-29/federated-most-vulnerable-to-sec-money-fund-proposals.html.

separation of MMF assets from the finances and operations of the MMF's sponsor.[30] The MMF sponsor is not a parent or affiliate of the fund but a separate legal entity that provides services to the MMF pursuant to an advisory contract.[31] Unlike banks, MMF sponsors are legally independent from MMFs, and their assets are separate from the securities in the MMF's portfolio.[32]

This separation between the MMF and its sponsor allows sponsor support to mitigate fluctuations in the value of an MMF's holdings and reduce the demand for redemption.[33] Historically, sponsors have regularly provided financial support to prevent MMFs from breaking the buck, despite the fact that they have no legal obligation to do so.[34] Ironically, although regulators have viewed sponsor support with suspicion, a suspicion that is reflected in elements of the SEC's 2014 rule,[35] it is an unexplored mechanism for enhancing MMF stability.

This Article argues for a dramatic shift in the regulation of MMFs. Rather than trying to make them operate more like banks by requiring capital buffers or sacrificing their viability by mandating a floating NAV, reform should formalize the role of sponsor support. Specifically, this Article proposes that regulators require MMF sponsors to stand behind their MMFs by committing to maintain the stable $1 NAV. In a time of crisis, sponsors could provide such support by buying distressed assets from the fund, reducing management fees, or subsidizing the fund with other business revenues. Sponsors could also privately insure their obligation.

Mandatory sponsor support offers several advantages over the 2014 rule and other reform proposals. It would both prevent MMFs from breaking the buck and harness market discipline to provide fund sponsors with appropriate incentives to limit risk-taking. Required

30. *See* John Morley, *The Separation of Funds and Managers: A Theory of Investment Fund Structure and Regulation*, 123 YALE L.J. 1228, 1232 (2014) (explaining that the separation of investment assets and management assets is a distinctive feature of investment funds).

31. Jill E. Fisch, *Rethinking the Regulation of Securities Intermediaries*, 158 U. PA. L. REV. 1961, 1968 (2010).

32. *See* Morley, *supra* note 30, at 1232.

33. *See* 2013 Rule Proposal, *supra* note 9, at 33,869 (explaining that fund managers and their affiliated persons have historically supported the stable value of MMFs through significant sources of private capital).

34. *See id*. (explaining that historically sponsor support has been provided on a voluntary basis and may not be provided in the future).

35. *See, e.g.*, 2014 Final Rule, *supra* note 22, at 47,736, 47,742 & n.52 (noting that "sponsor support has not been fully transparent to investors and this, in turn, may have lessened some investors' understanding of the risk in money market funds").

sponsor support would eliminate market uncertainty about the extent to which a sponsor would voluntarily support its fund in a time of crisis—uncertainty that contributed to the turmoil surrounding the events at the Reserve Primary Fund. Sponsor support would substitute sponsor financial stability for the need for investors to monitor the quality of MMF assets directly, a task that the SEC has highlighted with its new and unworkable disclosure requirements. Most importantly, sponsor support would address MMF fragility while allowing MMFs to continue to meet investor demand for a liquid, stable-value, cash-management option.

The Article begins in Part I by briefly outlining the core attributes of MMFs, the events leading up to the Reserve Fund's breaking the buck, and the SEC's initial response—the 2010 MMF reforms. Part II describes the case for further regulatory reform and the flawed and controversial reform effort. Part III evaluates the SEC's 2014 rule. In Part IV, the Article introduces its proposed alternative—mandatory sponsor support for a $1 NAV.

I. BACKGROUND

A. The Structure of MMFs

MMFs are a type of mutual fund and are regulated by the SEC under the Investment Company Act of 1940.[36] MMFs offer investors access to a pool of short-term debt securities, often called money market securities.[37] Money market securities include government securities, repurchase agreements, certificates of deposit, and commercial paper.[38] The critical feature that distinguishes MMFs from other short-term investment funds is that, while the price of most mutual funds fluctuates on a daily basis in accordance with the funds' NAV,[39] MMF shares are bought and sold at a stable $1 share price.[40] The $1 share price facilitates the role of MMFs as a cash-

36. Investment Company Act of 1940, Pub. L. No. 76-768, 54 Stat. 789 (codified as amended in scattered sections of 15 U.S.C. § 80a (2010)); *see, e.g.*, Fisch, *supra* note 31, at 1967 (describing regulation of mutual funds).

37. *See, e.g.*, Randall Dodd, *What Are Money Markets?*, FIN. & DEV., June 2012, at 46, 46 (describing money markets and various types of money market securities).

38. *See, e.g.*, *id.*

39. Mutual funds are priced as of the 4:00 PM close of their trading day; orders to sell or purchase fund shares must be submitted prior to the 4:00 PM close. Fisch & Roiter, *supra* note 1, at 1009.

40. *See, e.g.*, 2013 Rule Proposal, *supra* note 9, at 36,834–35. The price that MMFs pay for authorization to trade at $1 per share is compliance with SEC Rule 2a-7, which imposes a variety of constraints on the safety and liquidity of the assets in which MMFs are permitted to invest. *Id.* at 36,836; *see also* 2014 Final Rule, *supra* note 22, at 47,736,

management tool because the frequent investment and redemption of MMF shares does not result in a gain or loss for tax or accounting purposes.[41] As a result, MMFs offer investors both liquidity and stability. Importantly, unlike bank deposits, MMFs are not protected by federal insurance.[42]

Several types of MMFs exist, including those that invest in government securities (government MMFs), those that invest in municipal securities in order to generate tax-exempt income (tax-exempt MMFs), and those that invest primarily in commercial paper and other non-government securities (prime MMFs). Some MMFs are held by institutional investors; others are largely retail funds.

Because MMFs provide same-day liquidity, investors use MMFs primarily for cash management.[43] Retail investors use MMFs as an alternative to traditional bank deposit and checking accounts and as a sweep investment to facilitate trades in brokerage accounts.[44] Institutional investors use MMFs as a holding vehicle for cash and to manage operating expenditures such as payroll.[45] MMFs have traditionally offered investors higher returns and greater diversification than traditional bank accounts,[46] as well as features like check writing and debit-card access.[47]

MMFs are mutual funds, not bank accounts. Each MMF is organized as a discrete legal entity—a corporation or business trust.[48] The fund's sponsor manages the fund's assets pursuant to an advisory contract.[49] When investors purchase shares in an MMF, the sponsor uses those funds to purchase short-term debt securities. As with other mutual fund investors, an MMF shareholder has an equity interest—he or she owns a pro rata percentage of the securities held by the

47,774–75 (explaining that the decision to allow MMFs to trade at a stable share price was a regulatory concession that the SEC is now, in the case of prime institutional MMFs, eliminating); Fisch, *supra* note 31, at 1975 (describing Rule 2a-7).

41. *See* 2013 Rule Proposal, *supra* note 9, at 36,837 (describing the "tax and administrative convenience" of stable $1 share price).

42. *See* U.S. Sec. & Exch. Comm'n, Form N1-A, Item 4(b)(1)(ii) (requiring MMFs explicitly to disclose that investments are not protected by FDIC insurance).

43. *See* Letter from Paul Schott Stevens, President and CEO, Inv. Co. Inst., to Elizabeth M. Murphy, Sec'y, U.S. Sec. & Exch. Comm'n 1, 7 (Sept. 17, 2013), *available at* http://www.ici.org/pdf/13_ici_mmf_ltr.pdf [hereinafter Stevens Letter].

44. Kathleen C. Joaquin et al., *Operational Impacts of Proposed Redemption Restrictions on Money Market Funds*, INVESTMENT COMPANY INST. 6–7 (2012), http://www.ici.org/pdf/ppr_12_operational_mmf.pdf.

45. *Id.* at 6.

46. Stevens Letter, *supra* note 43, at 6.

47. Joaquin et. al., *supra* note 44, at 7.

48. Fisch, *supra* note 31, at 1968.

49. *Id.*

MMF. As with other mutual funds, shares in an MMF are redeemable on a daily basis.[50] In addition, MMF assets are segregated from the assets of other funds sold by the sponsor as well as from the sponsor's own assets.[51] MMF sponsors vary—approximately half are traditional mutual fund companies such as Vanguard and Fidelity; approximately half are bank affiliates.[52]

MMFs are able to maintain a stable $1 share price for two reasons. First, SEC rules allow MMFs to engage in "penny rounding," meaning that so long as the NAV does not fall below $0.995 or above $1.0049, the fund's shares may trade at $1 per share.[53] Second, MMFs are managed in a manner that limits the difference between the funds' NAV and $1 per share. The investments of MMFs, unlike most mutual funds, are conservative securities that are typically held to maturity.[54] MMFs rarely sell their portfolio holdings unless compelled to do so by redemption requests.[55] Indeed, the money market instruments in which MMFs invest are rarely traded. As a result, while the value of the MMF's portfolio may fluctuate on a daily basis, the value of any particular asset will approach its face amount as the instrument nears maturity. Since 1982, SEC rules have reflected this fact by allowing MMFs to value their portfolio assets using amortized cost accounting rather than market price.[56]

If an MMF's share price drops below $0.995, it is required to price its shares at 99 cents (or less).[57] This is described as "breaking the buck."[58] MMFs rarely break the buck because MMF sponsors

50. *See* Fisch & Roiter, *supra* note 1, at 1008.

51. *See* Morley, *supra* note 30, at 1232.

52. Marco Cipriani, *Presentation on Money Market Mutual Fund Reform*, FED. RESERVE BD. OF N.Y. 15 (Mar. 5, 2013), www.newyorkfed.org/education/pdf/2013/cipriani.pdf; *see also* Marcin Kacperczyk & Philipp Schnabl, *How Safe Are Money Market Funds?*, 128 Q.J. OF ECON. 1073, 1092 tbl.1 (2013) (describing characteristics and extent of sponsors' non-MMF business).

53. *See* 2014 Final Rule, *supra* note 22, at 47,736–37 (explaining amortized cost valuation and penny rounding). In contrast, other mutual funds must calculate their price to the nearest 1/10 of 1%. *Id.*

54. Fisch & Roiter, *supra* note 1, at 1008.

55. The infrequency with which MMFs trade is reflected in the fact that MMFs, unlike other mutual funds, are not required to disclose their turnover rates to investors. *See* U.S. Sec. & Exch. Comm'n, Form N1-A, Item 3(5) ("A Fund that is a Money Market Fund may omit the portfolio turnover information required by this Item.").

56. *See* Fisch & Roiter, *supra* note 1, at 1014–15 (describing SEC acceptance of amortized cost accounting).

57. *See, e.g.*, SEC Staff Report, *supra* note 8, at 57 (noting that an MMF breaks the buck when its price drops below $0.995).

58. In the course of history, two MMFs have broken the buck: the Reserve Primary Fund in 2008 and the Community Bankers U.S. Government Fund, a small institutional fund, in 1994. *See* Fisch & Roiter, *supra* note 1, at 1006 n.15.

have traditionally been willing to support the $1 share price.[59] Sponsor support is discretionary—indeed, current SEC rules do not permit sponsors to commit in advance to support a fund's share price.[60] Sponsor support may take the form of capital support agreements, letters of credit, waiving management fees, or purchasing distressed assets from the MMF at amortized cost.[61] Sponsor support can prevent a fund's NAV from departing too far below $1 per share or provide a fund with sufficient liquidity to meet redemption requests without being forced to sell assets at distressed prices.

On the supply side, MMFs provide a major part of the market for short-term debt securities. Historically, prime MMFs' assets have consisted largely of short-term debt instruments issued by financial institutions, although their holdings of such assets have declined since 2008.[62] Before the financial crisis, MMFs were the primary buyers of commercial paper.[63] Although after the financial crisis, MMFs decreased their holdings of commercial paper in favor of safer assets such as Treasuries,[64] as of June 2012, MMFs held 43% of nonfinancial commercial paper and 33% of repurchase agreements.[65]

MMFs are also an important source of financing for state and local governments and government entities. In 2008, MMFs were the largest institutional holders of municipal bonds, second only to retail investors.[66] Since 2008, MMFs have reduced their holdings of

59. *See* 2013 Rule Proposal, *supra* note 9, at 36,834, 36,840–41 (detailing frequency of sponsor support from 1994 to 2011).

60. *See infra* note 320. Rule 17a-9 permits discretionary sponsor support. *See* 2013 Rule Proposal, *supra* note 9, at 36,839 n.41.

61. *See* Letter from James J. Angel, Assoc. Professor of Fin., Georgetown Univ., to the Fin. Stability Oversight Council 4–11 (Feb. 6, 2013), *available at* http://www.sec.gov/comments/mms-response/mmsresponse-27.pdf).

62. 2013 Rule Proposal, *supra* note 9, at 36,922.

63. *See, e.g.*, Kacperczyk & Schnabl, *supra* note 52, at 1–2; *see also* Carol A. DeNale, Corporate Treasurer, CVS Caremark, Remarks at the Roundtable on Money Market Funds and Systemic Risk 8 (May 10, 2011), *available at* https://www.sec.gov/spotlight/mmf-risk/mmf-risk-transcript-051011.htm ("[CVS Caremark has] a three and a half billion dollar commercial paper program. I look to [MMFs] to purchase commercial paper. Approximately 40% of my outstanding CP at any given time is owned by a 2a-7 fund. That's an amazingly important part of our capital structure, and one that will not easily be replaced.").

64. *See* SEC Staff Report, *supra* note 8, at 23–25.

65. Marco Cipriani, Antoine Martin & Bruno Maria Parigi, *The Fragility of an MMF-Intermediated Financial System*, LIBERTY STREET ECON. (Dec. 23, 2013), http://libertystreeteconomics.newyorkfed.org/2013/12/the-fragility-of-an-mmf-intermediated-financial-system.html.

66. Lisa Lambert, *Bank Holdings of U.S. Municipal Bonds Hit Record High*, REUTERS (June 6, 2013, 5:04 PM), http://www.reuters.com/article/2013/06/06/usa-economy-debt-municipals-idUSL1N0EI1CU20130606.

municipal bonds dramatically, a shift that is largely due to a decline in interest rates.[67]

SEC Rule 2a-7 regulates both the quality and the maturity of MMF portfolio assets. The rule requires MMFs' investment portfolios to have a weighted average maturity ("WAM") of sixty days.[68] An MMF is required to invest at least 97% of its assets in first tier securities.[69] At least 10% of an MMF's assets must be in cash, U.S. Treasury securities, or securities that mature within one day (daily liquid assets),[70] and at least 30% must be in securities that mature within a week (weekly liquid assets).[71] Since the financial crisis, most MMFs have invested more conservatively than required by the rule.[72] The average maturity for instruments held by prime MMFs in October 2012, for example, was forty-two days.[73] As of June 2012, prime MMFs held 31% of their assets in daily liquid assets and 46% in weekly liquid assets.[74]

B. The Reserve Primary Fund

In the early morning of September 15, 2008, Lehman Brothers filed for bankruptcy.[75] The Reserve Primary Fund held approximately

67. *Id.*

68. This requirement, which reflects a reduction from the prior WAM requirement of ninety days, was a component of the 2010 MMF reforms. *See* Money Market Fund Reform; Amendments to Form PF, 75 Fed. Reg. 10,060, 10,070 (Mar. 4, 2010) (to be codified at 17 C.F.R. pts. 270 & 274) [hereinafter 2010 Final Rule].

69. First tier securities are securities that have received the highest short-term debt rating from the Nationally Recognized Statistical Rating Organizations ("NRSRO") or have been determined by the fund's board to be of comparable quality. The rules further provide that an MMF cannot invest more than half of 1% of its assets in second tier securities issued by any single issuer and may not buy second tier securities that mature in more than forty-five days (rather than the previous limit of 397 days). SEC Investment Company Act of 1940, 17 C.F.R. § 270.2a-7(c)(3)(ii), (c)(4)(i)(C) (2014). Second tier securities are eligible securities that, if rated, have received other than the highest short-term debt rating from the requisite NRSROs or, if unrated, have been determined by the fund's board of directors to be of comparable quality. *See* 17 C.F.R. § 270.2a-7(a)(26) (defining "second tier security"); *see also* § 270.2a-7(a)(14) (defining "first tier security").

70. 17 C.F.R. § 270.2a-7(c)(5)(ii).

71. *Id.*

72. *See* SEC Staff Report, *supra* note 8, at 18–26 (describing changes in MMF portfolio composition following the 2010 MMF reforms).

73. Sean Collins et al., *Money Market Mutual Funds*, *Risk*, *and Financial Stability in the Wake of the 2010 Reforms*, 19 ICI Res. Persp., Jan. 2013, at 1, 14.

74. Letter from Paul Schott Stevens, President and CEO, Inv. Co. Inst., to the Fin. Stability Oversight Council 22 (Jan. 24, 2013), *available at* www.ici.org/pdf/13_fsoc_mmf_recs.pdf.

75. Lehman filed its bankruptcy petition at 1:45 A.M. Monday morning. Peg Brickley, *Lehman Makes It Official in Overnight Chapter 11 Filing*, WALL ST. J. (Sept. 15, 2008), http://blogs.wsj.com/wallstreetcrisis/2008/09/15/lehman-makes-it-official/.

1.2% of its portfolio in short-term Lehman debt, debt that, as of the date that Lehman filed for bankruptcy, was rated prime-1 by Moody's[76]—Moody's highest short-term debt rating.[77] Moody's downgraded the Lehman debt on September 15, 2008, at which time the Reserve Fund received redemption requests of $25 billion, reflecting more than 40% of the fund's value.[78] The next day, the fund broke the buck and, following the announcement, suspended redemptions.[79] Investors eventually recovered more than 99 cents on the dollar but were required to wait sixteen months to recover all their money.[80]

The Reserve Fund was not the only MMF to receive substantial redemption requests during Lehman week.[81] Moreover, the broader instability of financial institutions offered the prospect of a problem that extended well beyond the Lehman bonds. A widespread failure of financial firms would greatly increase the pressure on MMFs by multiplying the extent of their losses on financial-firm debt instruments. As then-executive vice president of the Markets Group at the New York Office of the Federal Reserve, William Dudley observed in the meeting of the Federal Reserve Board on September 16, 2008, "The risk here, of course, is that, if AIG were to fail, money funds have even a broader exposure to them than to Lehman, and so breaking the buck on the money market funds is a real risk."[82]

The government responded to this concern by establishing a Treasury Department Temporary Guarantee Program for Money Market Funds and the Asset-Backed Commercial Paper Money Market Mutual Fund Liquidity Facility ("AMLF"), created by the

76. *See Rating Action: Moody's Places Lehman's A2 Rating on Review with Direction Uncertain*, MOODY'S INVESTORS SERVICE (Sept. 10, 2008), https://www.moodys.com/research/Moodys-places-Lehmans-A2-rating-on-review-with-direction-uncertain--PR_162621 (warning that Lehman's short-term ratings were being placed under review). Moody's did not downgrade Lehman until September 15, 2008. *See Rating Action: Moody's Places Lehman's A2 Rating on Review with Direction Uncertain*, MOODY'S INVESTORS SERVICE (Sept. 15, 2008), https://www.moodys.com/research/ Moodys-lowers-Lehman-to-B3Non-Prime-on-review-for-possible--PR_162853 [hereinafter *Moody's Rating Action*].

77. *See Moody's Rating Symbols and Definitions*, MOODY'S INVESTORS SERVICE 10 (June 2009), https://www.moodys.com/sites/products/AboutMoodysRatingsAttachments/MoodysRatingsSymbolsand%20Definitions.pdf.

78. *See Moody's Rating Action*, *supra* note 76.

79. For further details, see Fisch & Roiter, *supra* note 1, at 1018–19.

80. *Id.* at 1019.

81. *See supra* notes 8–9 and accompanying text.

82. William Dudley, Manager, System Open Market Account, Remarks at the Federal Open Market Committee. Meeting 4–5 (Sept. 16, 2008), *available at* http://www.federalreserve.gov/monetarypolicy/files/FOMC20080916meeting.pdf.

Federal Reserve Board. The Temporary Guarantee Program was designed to reduce redemption requests by assuring investors that they would not lose the value of money invested in MMFs.[83] Under the terms of the program, MMFs paid a premium in exchange for the federal government agreeing to guarantee the amortized cost value of their portfolios as of September 19, 2008.[84] The guarantee only extended to money invested in the MMFs as of that date—new deposits into MMFs were not covered by the guarantee.[85] Federal Reserve Chairman Ben Bernanke explained that this limit was designed to prevent the guarantee from causing money to run from bank deposits into MMFs.[86] Participation in the program was voluntary, but virtually all MMFs chose to participate.[87] The federal government did not pay out any funds pursuant to the guarantee but received $1.2 billion in premiums.[88]

The Federal Reserve Board also created the AMLF to provide a market for asset backed commercial paper.[89] The AMLF created this

83. *See* Press Release, U.S. Dep't of the Treasury, Treasury Announces Guaranty Program for Money Market Funds (Sept. 19, 2008), *available at* http://www.treasury.gov/press-center/press-releases/Pages/hp1147.aspx. The guaranty was funded by the $50 billion Exchange Stabilization Fund, but no MMF drew upon the Stabilization Fund, and the program expired on September 18, 2009. *See* Press Release, U.S. Dep't of the Treasury, Treasury Announces Expiration of Guarantee Program for Money Market Funds (Sept. 18, 2009), *available at* http://www.treasury.gov/press-center/press-releases/Pages/tg293.aspx [hereinafter Press Release, Expiration of Guarantee Program].

84. The program required

> money market funds with a net asset value per share greater than or equal to $0.9975 as of the close of business on September 19, 2008, to pay an upfront fee of 0.01 percent, 1 basis point, based on the number of shares outstanding on that date. Funds with net asset value per share of greater than or equal to $0.995 and below $0.9975 [were required] to pay an upfront fee of 0.015 percent . . . .

Press Release, U.S. Dep't. of the Treasury, Treasury Announces Temporary Guarantee Program for Money Market Funds (Sept. 29, 2008), *available at* http://www.treasury.gov/press-center/press-releases/Pages/hp1161.aspx.

85. *Id.* The guarantee was originally scheduled to last for three months but was extended to just over a year in duration. *See Treasury's Guarantee Program for Money Market Mutual Funds: What You Should Know*, FIN. INDUSTRY REG. AUTHORITY, http://www.finra.org/investors/protectyourself/investoralerts/mutualfunds/p117136 (last updated July 9, 2010).

86. Ben Bernanke, Chairman, Fed. Reserve, Remarks in Conference Call of the Federal Open Market Committee. 8 (Sept. 29, 2008), *available at* http://www.federalreserve.gov/monetarypolicy/files/FOMC20080929confcall.pdf.

87. *See, e.g.*, John Carney, *Treasury's Secretive $2.4 Trillion Mutual Fund Guarantee*, CNBC (Aug. 10, 2012, 6:14 PM), http://www.cnbc.com/id/48578949 (reporting that over 99% of MMF assets were covered by the guarantee).

88. Press Release, Expiration of Guarantee Program, *supra* note 83.

89. *See* Press Release, Bd. of Governors of the Fed. Reserve Sys., Federal Reserve Board Announces Two Enhancements to Its Programs to Provide Liquidity to Markets

market indirectly by providing financing to U.S. banks that purchased commercial paper from MMFs.[90] To facilitate these purchases, the Federal Reserve extended nonrecourse credit to the purchasing banks at its primary credit rate.[91] Importantly, in order to obtain these terms, the banks had to purchase the commercial paper at amortized cost rather than market value.[92]

The AMLF had two distinct objectives.[93] First, it provided a source of liquidity for MMFs that were subject to redemption requests.[94] Second, it provided price support to the commercial paper market by propping up the price at which commercial paper was traded. This avoided the need for MMFs to engage in distressed sales that would have reduced the value of the underlying short-term credit instruments.[95]

The AMLF was quite successful. At its peak, it provided financing for approximately 22% of the asset-backed commercial paper market in the United States.[96] The facility was used by 105 MMFs, which represented 42% of eligible prime MMFs.[97] Importantly, empirical research found that the AMLF reduced redemption requests and outflows from MMFs, thus addressing the liquidity concern.[98] It also found that use of the AMLF helped reduce Asset Backed Commercial Paper ("ABCP") yields, meaning that it

(Sept. 19, 2008), *available at* http://www.federalreserve.gov/newsevents/press/monetary/20080919a.htm.

90. *See* Burcu Duygan-Bump et al., *How Effective Were the Federal Reserve Emergency Liquidity Facilities? Evidence from the Asset-Backed Commercial Paper Money Market Mutual Fund Liquidity Facility*, 68 J. FIN. 715, 721–24 (2013) (describing the AMLF).

91. *See Asset Backed Commercial Paper (ABCP) Money Market Mutual Fund (MMMF) Liquidity Facility Terms and Conditions*, FEDERAL RESERVE DISCOUNT WINDOW, http://www.frbdiscountwindow.org/mmmftc.cfm?hdrID=14&dtlID (last updated Feb. 5, 2010).

92. *Id.*

93. *See* Duygan-Bump et al., *supra* note 90, at 721–22.

94. *See Asset Backed Commercial Paper (ABCP) Money Market Mutual Fund (MMMF) Liquidity Facility (AMLF or "the Facility"): Frequently Asked Questions and Answers*, FED. RES. DISCOUNT WINDOW, https://www.frbdiscountwindow.org/Home/GeneralPages/Asset-Backed-Commercial-Paper-ABCP-Money-Market-Mutual-Fund-MMMF-Liquidity-Facility-AMLF-or-the-Facility-#f1 (last updated Feb. 5, 2010) (explaining that AMLF was established to "help restore liquidity to the ABCP markets and thereby to help money funds meet demands for redemption").

95. *Asset-Backed Commercial Paper Money Market Mutual Fund Liquidity Facility (AMLF)*, FED. RES., http://www.federalreserve.gov/newsevents/reform_amlf.htm (last updated Dec. 9, 2014).

96. Duygan-Bump et al., *supra* note 90, at 721–22.

97. *Id.* at 724.

98. *See id.* at 727–28.

was effective in preventing commercial paper from trading at distressed prices.[99]

An additional factor that limited the scope of the outflow is that redemption requests during Lehman week were concentrated primarily among institutional investors. As the SEC noted, fewer than 5% of retail funds experienced redemption requests of greater than 5% on each of September 17 to 19, 2008, compared to 22–30% of institutional funds.[100]

C. The SEC's 2010 MMF Reforms

In January 2010, the SEC responded to the Reserve Primary Fund situation and the broader turmoil in the MMF industry by amending Rule 2a-7 in an effort to make MMFs more resistant to the effects of adverse economic events in the future.[101] The reforms included requirements that MMF portfolios have higher investment quality, shorter maturities, and greater liquidity.[102] There is little dispute that these reforms enhanced MMF stability.[103]

MMFs were also required by the rule to engage in periodic stress testing so as to determine how likely the fund was to break the buck in the event of adverse economic developments or heavy redemption requests.[104] As a component of this stress testing, MMFs were required to incorporate "know your customer" evaluations in their stress testing procedures, based on an understanding of their customers' liquidity needs.[105] Finally, MMFs were subjected to increased disclosure requirements,[106] including a requirement that MMFs disclose their portfolio holdings both publicly and to the SEC.[107]

99. *Id.* at 735.

100. 2014 Final Rule, *supra* note 22, at 47,794–95.

101. 2010 Final Rule, *supra* note 68, at 10,062.

102. *See* Fisch & Roiter, *supra* note 1, at 1022 (describing 2010 reforms in detail).

103. *See generally, e.g.*, Collins et al., *supra* note 73 (analyzing effect of 2010 reforms); SEC Staff Report, *supra* note 8 (same).

104. 2010 Final Rule, *supra* note 68, at 10,079.

105. *See id.* at 10,079 n.261 ("As discussed above, amended rule 2a-7's new liquidity requirements require money market funds to evaluate their liquidity needs based on their shareholder base . . . . Money market funds should also incorporate this element in their stress testing procedures as appropriate.").

106. *See* Collins et al., *supra* note 73, at 3–4 (explaining how this increased transparency enabled the market to monitor MMFs' exposures during 2011).

107. 2010 Final Rule, *supra* note 68, at 10,083–84. The 2010 reforms contained several additional components, including a formalized procedure permitting fund affiliates to purchase distressed assets from the fund—a key mechanism for sponsor support—and a rule permitting MMFs to suspend redemptions in order to conduct an orderly liquidation. *See* Fisch & Roiter, *supra* note 1, at 1023.

A subtle[108] but potentially significant component of the 2010 reforms was the addition of a requirement that MMFs periodically calculate a "shadow NAV" reflecting the value of the MMF portfolio using a market-based valuation approach rather than amortized cost.[109] As a result of the 2010 amendments, MMF boards of directors must establish written procedures for the calculation of the shadow NAV, periodically review deviations between the shadow NAV and the amortized cost valuation, and promptly consider whether any action should be taken if the deviation exceeds half of 1%—the amount of deviation that could potentially require a fund to break the buck.[110] As we will see, the concept of a shadow NAV is a critical component of further policy reforms, including the 2014 rule.[111]

II. THE CASE FOR FURTHER REGULATORY REFORM

A. Concern that the 2010 Reforms Were Not Enough

When it adopted the 2010 rule changes, the SEC noted that more fundamental changes to MMFs might be needed. Chair Mary Schapiro identified several possible regulatory alternatives, including, most prominently, a requirement that MMFs shift to a floating NAV rather than trading at a stable $1 share price.[112] Schapiro stated that, although the various alternatives remained under consideration and further study was necessary, she was "committed to continuing to move forward with reforming the money market fund industry."[113]

At the same time that the SEC was adopting the 2010 MMF reforms, the Treasury Department was developing a package of financial regulatory reforms designed to address the conditions that, in its view, contributed to the financial crisis.[114] In June 2009, the

108. For example, in its 2013 Rule Proposal, the SEC summarizes the 2010 regulatory reforms but does not describe the shadow pricing requirements. *See* 2013 Rule Proposal, *supra* note 9, at 36,840–41.

109. SEC Investment Company Act of 1940, 17 C.F.R. § 270.2a-7(c)(8)(ii)(A) (2014) (codifying Rule 2a-7(c)(8)(ii)(A)).

110. *See* 2010 Final Rule, *supra* note 68, at 10,113–14.

111. *See infra* notes 263–67 and accompanying text.

112. Mary Schapiro, Chairman, U.S. Sec. & Exch. Comm'n, Statement on Money Market Funds Before the Open Commission Meeting (Jan. 27, 2010), https://www.sec.gov/news/speech/2010/spch012710mls-mmf.htm.

113. *Id.*

114. *See* U.S. DEP'T OF THE TREASURY, FINANCIAL REGULATORY REFORM A NEW FOUNDATION: REBUILDING FINANCIAL SUPERVISION & REGULATION 4 (2009), *available at* http://www.treasury.gov/initiatives/wsr/Documents/FinalReport_web.pdf [hereinafter TREASURY DEP'T REPORT] (describing its proposals as designed "to address the causes of the current crisis, to create a more stable financial system that is fair for consumers, and to help prevent and contain potential crises in the future").

Treasury Department released *Financial Regulatory Reform: A New Foundation Report* ("Treasury Department Report").[115] The Treasury Department Report contained reforms aimed at meeting five main objectives, one of which was promoting the "Robust Supervision and Regulation of Financial Firms."[116] In achieving that objective, the Treasury proposed the creation of the Financial Stability Oversight Council ("FSOC").[117] Congress responded to this suggestion, creating the FSOC as part of the Dodd-Frank Wall Street Reform and Consumer Protection Act in 2010.[118]

Treasury also stated that the SEC should move forward with its plans to strengthen the regulation of MMFs[119] and that the

> President's Working Group on Financial Markets should prepare a report assessing whether more fundamental changes are necessary to further reduce the MMF industry's susceptibility to runs, such as eliminating the ability of a MMF to use a stable net asset value or requiring MMFs to obtain access to reliable emergency liquidity facilities from private sources.[120]

115. *Id.*

116. *Id.* at 5.

117. *Id.* (originally proposed as the Financial Services Oversight Council).

118. *See* Dodd-Frank Wall Street Reform and Consumer Protection Act, Pub. L. No. 111-203, §§ 111–12, 124 Stat. 1376, 1392–98 (2010) (codified as amended in scattered sections of 12 U.S.C). The FSOC consists of ten voting members including the Secretary of the Treasury, the Chairman of the Board of Governors of the Federal Reserve, the Comptroller of the Currency, and the heads of various federal agencies, including the SEC and the Commodity Futures Trading Commission ("CFTC"), as well as five nonvoting members, including an independent insurance expert, and representatives of state regulators. *Financial Stability Oversight Council*, *Who is on the Council?*, U.S. DEP'T OF TREASURY, http://www.treasury.gov/initiatives/fsoc/about/council/Pages/default.aspx (last visited Jan. 14, 2015).

119. The Treasury Department Report was fairly specific about the reforms that it recommended the SEC adopt. *See* TREASURY DEP'T REPORT, *supra* note 114, at 38. These reforms had already been described in the SEC's proposed rulemaking, which had been released for public comment at the time of the report's release. *See* Money Market Fund Reform, Investment Company Act Release No. 28807, 74 Fed. Reg. 32,688, 32,716–19 (proposed July 8, 2009) [hereinafter MMF Proposing Release] (to be codified at 17 C.F.R. pts. 270, 274).

120. TREASURY DEP'T REPORT, *supra* note 114, at 12. The private liquidity facility option was a form of bank-like regulation, which would have provided temporary liquidity to MMFs in times of financial stress. The mutual fund industry subsequently developed a proposal for a private liquidity facility. *See* Letter from Paul Schott Stevens, CEO, Inv. Co. Inst., to Elizabeth M. Murphy, Sec'y, U.S. Sec. & Exch. Comm'n 23–31 (Jan. 10, 2011), *available at* http://www.sec.gov/comments/4-619/4619-49.pdf (describing private liquidity facility proposal).

Following Treasury's direction,[121] the President's Working Group on Financial Markets ("PWG")[122] undertook a study of possible additional MMF reforms and published a report on reform options in October 2010 ("PWG Report").[123] The PWG Report identified and discussed eight policy options ranging from the elimination of a stable NAV to regulating MMFs as special purpose banks and subjecting them to bank regulation and oversight.[124] The Report devoted considerable attention to justifying the need for additional reform efforts, primarily by reiterating the fact that, despite the SEC's rule changes, MMFs remained vulnerable to runs and by highlighting the destabilizing effect of runs on the economy.[125]

The SEC then began to develop an additional rulemaking proposal.[126] According to Chairman Schapiro, the two alternatives under consideration were a floating NAV and required capital buffers.[127] Chairman Schapiro indicated that she supported one or both of these reforms[128] and that she "consider[ed] the structural

121. PRESIDENT'S WORKING GRP. ON FIN. MKTS., MONEY MARKET FUND REFORM OPTIONS 1 (Oct. 2010) [hereinafter PWG REPORT], *available at* http://www.treasury.gov/press-center/press-releases/Documents/10.21%20PWG%20Report%20Final.pdf ("This report by the PWG responds to Treasury's call.").

122. The members of the PWG included the Secretary of the Treasury Department (as chairman of the PWG), the Chairman of the Board of Governors of the Federal Reserve System, the Chairman of the SEC, and the Chairman of the CFTC. *Id.* at 1 n.1.

123. *Id.* at 1.

124. *See id.* at 4–6 (describing eight policy options).

125. *Id.* at 8–11. The PWG Report also discussed possible means of implementing the reform alternatives, but it did not recommend any specific reform. *See id.* at 18–35.

126. Toward this end, the SEC issued a request for comment on the PWG Report. President's Working Group Report on Money Market Fund Reform, Investment Company Act Release No. 29497, 75 Fed. Reg. 68,636 (proposed Nov. 8, 2010), *available at* http://www.sec.gov/rules/other/2010/ic-29497.pdf. It also hosted a Roundtable on Money Market Funds and Systematic Risk (the 2011 Roundtable). *See Unofficial Transcript: Roundtable on Money Market Funds & Systematic Risk*, U.S. SEC. & EXCH. COMM'N (May 10, 2011), http://www.sec.gov/spotlight/mmf-risk/mmf-risk-transcript-051011.htm [hereinafter *Roundtable Transcript*]. The main regulatory alternatives discussed at the Roundtable were requiring that MMFs convert to a floating NAV, subjecting MMFs to bank-like regulation in exchange for the provision of outside liquidity support, or mandating that MMFs maintain some type of capital buffer. *Id.*

127. Schapiro Statement, *supra* note 21. Schapiro subsequently explained that capital buffers were an attractive regulatory reform because they would allow a fund "to absorb the day-to-day variations in the value of a money market fund's holdings." *Id.*

128. *See id.*; *see also* Daniel M. Gallagher & Troy A. Paredes, Comm'rs, U.S. Sec. & Exch. Comm'n, Statement on the Regulation of Money Market Funds (Aug. 28, 2012), http://www.sec.gov/news/speech/2012/spch082812dmgtap.htm [hereinafter Gallagher & Paredes Statement] (describing the "Chairman's preferred alternatives of a 'floating NAV' and a capital buffer coupled with a holdback restriction").

reform of money markets one of the pieces of unfinished business from the financial crisis."[129]

At the time, other members of the Commission disagreed about the desirability of going forward with the staff's proposal. Commissioner Aguilar issued a public statement raising concern about the accuracy of the information upon which the staff proposal relied.[130] He also argued that the SEC should not regulate MMFs further without more broadly studying the cash-management industry.[131] Commissioners Gallagher and Paredes stated that they were not convinced that the Commission's alternatives would "achieve the goal of stemming a run on money market funds, particularly during a period of widespread financial crisis."[132] The dissenting Commissioners also argued that the case had not been made for reform.[133] They noted that the 2010 reforms had not been shown to be ineffective.[134] Furthermore, the Chairman's proposal would, in their view, compromise the functioning of MMFs, inflicting harm both on investors and on those who obtain short-term funding from MMFs.[135] In light of the lack of agreement among the Commissioners, on August 22, 2012, Chairman Schapiro announced that the Commission would not, at that time, go forward with the staff proposal.[136]

To address the concerns expressed by Commissioners Aguilar, Gallagher, and Paredes, the SEC Division of Risk, Strategy, and Financial Innovation undertook to study and report on three questions: the causes of the high level of MMF redemptions in September 2008, the efficacy of the 2010 MMF reforms, and the potential impact of additional reforms on investor demand for MMFs

129. Schapiro Statement, *supra* note 21.

130. *See* Luis A. Aguilar, Comm'r, U.S. Sec. & Exch. Comm'n, Statement Regarding Money Market Funds (Aug. 23, 2012), http://www.sec.gov/News/PublicStmt/Detail/PublicStmt/1365171491044.

131. *Id.*

132. Gallagher & Paredes Statement, *supra* note 128.

133. *Id.*

134. *Id.* (noting that "the empirical evidence we have so far, such as the performance of money market funds during the ongoing Eurozone crisis and the U.S. debt ceiling impasse and downgrade in 2011, suggests just the opposite—that money market funds can meet substantial redemption requests, in large part, we have heard, because of the 2010 reforms").

135. *See id.* ("[W]e are concerned that the Chairman's proposal would, at a minimum, severely compromise the utility and functioning of money market funds, which would inflict harm on retail and institutional investors who have come to rely on money market funds for investing and as a means of cash-management and on states, municipalities, and businesses that borrow from money market funds.").

136. Schapiro Statement, *supra* note 21.

and alternative investment vehicles.[137] The SEC Staff Report, which was released on November 30, 2012, presented a variety of data responsive to all three questions.[138] The staff concluded that the 2010 reforms had made MMFs "more resilient now to both portfolio losses and investor redemptions than they were in 2008."[139] Nonetheless, the Report concluded, through a series of simulations, that the reforms would not have been sufficient to prevent the Reserve Primary Fund from breaking the buck in 2008.[140]

The key empirical finding of the Report was largely a foregone conclusion because the empirical methodology sought to determine whether a fund could avoid breaking the buck if it sustained losses of more than 1%, as the Reserve Fund did. Unsurprisingly then, the Report concluded that "[t]he rate at which funds break the buck approaches 100% for capital losses that exceed 1% regardless of whether there are either redemption requests or WLA [weekly liquid asset] requirements."[141] By definition, a fund that suffers a 1% loss will have an NAV of 99 cents and will break the buck in the absence of an outside source of funding such as sponsor support. The staff's complex simulations were unnecessary to establish this point.[142] The SEC subsequently concluded from these findings that the 2010 reforms were not "sufficient."[143]

When the SEC announced that a majority of the Commissioners did not support further MMF reforms,[144] Treasury Secretary Timothy Geithner urged the FSOC, which he chaired, to become involved.[145] At his prompting, the FSOC took the unprecedented step of releasing its own MMF reform recommendations for public comment.[146] The FSOC described its proposal as pursuant to its authority under section 120 of Dodd-Frank[147] to "provide for more stringent

137. *See* SEC Staff Report, *supra* note 8, at 1.

138. *Id.*

139. *Id.*

140. *Id.* at 37. Importantly, the Report observed that this assumed that the fund would not have changed its holdings in light of the overall changes to Rule 2a-7. *Id.*

141. *Id.*

142. The SEC staff provided a multi-page appendix supporting its conclusion including a Monte Carlo simulation. *Id.* at 74–80.

143. 2013 Rule Proposal, *supra* note 9, at 36,848.

144. Schapiro Statement, *supra* note 21.

145. Letter from Timothy F. Geithner, Sec'y of the Treasury, to Members of the Fin. Stability Oversight Council (Sept. 27, 2012), *available at* http://link.coremotivesmarketing.com/c/306/c9c08c9c7eb64ed07c9d05c3c47da44ef8d1713cb48f31b665172e5bd3d9dbe6.

146. *See* Proposed Recommendations Regarding Money Market Mutual Fund Reform, 77 Fed. Reg. 69,455, 69,457 (proposed Nov. 19, 2012) [hereinafter FSOC Proposal].

147. *See id.* at 69,455; *see also* Dodd-Frank Wall Street Reform and Consumer Protection Act, Pub. L. 111-203, § 120(a), (c)(2), 124 Stat. 1376, 1408–09 (2010) (codified

regulation of such financial activity or practice by issuing recommendations to a primary financial regulatory agency to apply new or heightened standards or safeguards."[148] Significantly, this was the first time the FSOC used its authority under Dodd-Frank to issue recommendations to another regulatory agency.[149]

The FSOC proposal consisted of three options that it recommended the SEC implement individually or in combination.[150] The options, which bore a strong resemblance to those that the SEC had already considered and tabled, were (1) requiring MMFs to switch from a fixed to a floating NAV; (2) providing for a NAV capital buffer of up to 1%, supplied by an MMF sponsor, together with a required minimum balance at risk for MMF investors; or (3) requiring a risk-based capital buffer of up to 3%, which could be combined with other risk-reducing measures.[151] Although commentators criticized the FSOC's actions for several reasons,[152] the recommendations had the intended effect of pressuring the SEC, in 2013, to release a rule proposing substantial structural reforms to MMFs.[153] The SEC subsequently adopted a modified version of this proposed rule, which will be discussed in Part III.[154]

as amended in scattered sections of Title 12 U.S.C.) (permitting the FSOC to issue recommendations to financial regulatory institutions to implement heightened standards).

148. FSOC Proposal, *supra* note 146, at 69,456.

149. *See* Stephen A. Keen, *FSOC and Money Market Fund Reform: A Path to Nowhere*, REED SMITH (Oct. 8, 2012), http://www.reedsmith.com/FSOC-and-Money-Market-Fund-Reform-A-Path-to-Nowhere-10-08-2012/ (explaining that this was the first time that FSOC was being asked to use its power under section 120).

150. *Id.*; *see also* Lea Anne Copenhefer & Roger P. Joseph, *FSOC Turns Up the Heat on Money Market Fund Reform*, BINGHAM MCCUTCHEN (Nov. 21, 2012), http://www.bingham.com/Alerts/2012/11/FSOC-Turns-Up-the-Heat-on-Money-Market-Fund-Reform (describing the FSOC's reform proposal).

151. FSOC Proposal, *supra* note 146, at 69,456. The FSOC Proposal also requested the SEC to increase the minimum weekly liquidity requirements for MMFs from 30% to 40%. *Id.* at 69,476.

152. *See, e.g.*, Keen, *supra* note 149; Gallagher Remarks, *supra* note 26 (describing FSOC's involvement in the effort to regulate MMFs as a threat to the political independence of the Commission); Sean Foley, Note, *Money Market Fund Reform & The Financial Stability Oversight Council*, 32 REV. BANKING & FIN. L. 308, 313–19 (2013) (questioning FSOC's use of its power under section 120).

153. *See generally* 2013 Rule Proposal, *supra* note 9 (proposing two alternative reform options for the MMF industry); *see also* Sarah N. Lynch, *Schapiro: U.S. Risk Council Gave Life to Money Fund Reforms*, REUTERS (June 4, 2013, 10:21 AM), http://www.reuters.com/article/2013/06/04/us-sec-moneyfunds-schapiro-idUSBRE9530PY20130604 (quoting former SEC Chairman Mary Schapiro as stating that "I don't think there is any doubt that, but for FSOC stepping in, this issue would have never continued to [be] part of the public debate and discussion").

154. *See infra* notes 189–292 and accompanying text.

B. The Case for MMF Vulnerability

The case for MMF reform was based on a simple logic. The structural characteristics of MMFs make them vulnerable to runs.[155] Runs have a destabilizing effect on the economy.[156] Reform is therefore necessary to reduce or eliminate the risk of future runs.[157] As the PWG Report explained, the primary objective of reform efforts should be "to materially reduce MMFs' susceptibility to runs."[158]

The term "run" is typically associated with banks, not mutual funds.[159] Banks hold money that depositors are entitled to withdraw on demand. Banks in turn lend that depositor money to borrowers. If too many depositors demand their money at the same time, the bank

155. *See, e.g.*, PWG REPORT, *supra* note 121, at 2–3 (describing vulnerability of MMFs to runs); 2013 Rule Proposal, *supra* note 9, at 36,837–43 (discussing five characteristics of MMFs that make them vulnerable to runs).

156. *See, e.g.*, Douglas W. Diamond & Philip H. Dybvig, *Banking Theory, Deposit Insurance, and Bank Regulation*, 59 J. BUS. 55, 63–64 (1986) (noting the social cost of bank runs and the resulting social value of preventing such runs).

157. It is noteworthy that reform advocates justify regulation in terms of the need to eliminate the risk of runs, yet regulated banks experience runs with some frequency despite the use of capital buffers and federal insurance. In the days before IndyMac's failure, for example, depositors withdrew approximately $1.3 billion of the bank's deposits. Ari Levy & David Mildenberg, *IndyMac Seized by U.S. Regulators; Schumer Blamed for Failure*, BLOOMBERG (July 12, 2008, 12:23 AM), http://www.bloomberg.com/apps/news?pid=newsarchive&sid=aAYLeK3YAie4. On September 25, 2008, regulators shut down Washington Mutual, the largest savings and loan in the United States, after customers had withdrawn over $16.7 billion in deposits in ten days. *The Downfall of Washington Mutual*, IBS CENTER FOR MGMT. RES., http://www.icmrindia.org/casestudies/catalogue/Business%20Strategy/The%20Downfall%20of%20Washington%20Mutual.htm (last visited June 12, 2014). At the peak of the financial crisis, Wachovia was losing $1 billion in deposits per day, according to Federal Reserve Transcripts. *See* Rick Rothacker, *New Transcripts: Teetering Wachovia Was Losing $1 Billion in Deposits a Day*, CHARLOTTEOBSERVER (Feb. 21, 2014), http://www.charlotteobserver.com/2014/02/21/4713938/new-transcripts-wachovia-was-losing.html. These large-scale redemptions are not limited to the financial crisis. When the government announced the expiration of the expanded government guarantee on bank deposits in January 2013, depositors withdrew more than $114 billion from the twenty-five largest U.S. banks. Nick Summers, *Withdrawn: $114 Billion from Big U.S. Banks*, BLOOMBERG BUSINESSWEEK (Jan. 23, 2013), http://www.businessweek.com/articles/2013-01-23/missing-114-billion-from-u-dot-s-dot-banks.

158. PWG REPORT, *supra* note 121, at 2.

159. Scholars generally agree that a key component of banks' susceptibility to runs is the maturity mismatch—the bank's assets are tied up in long-term investments, but the bank offers immediate liquidity to depositors. *See, e.g.*, Diamond & Dybvig, *supra* note 156, at 63; Zachary J. Gubler, *Regulating in the Shadows: Systemic Moral Hazard and the Problem of the Twenty-First Century Bank Run*, 63 ALA. L. REV. 221, 232 (2014). Although MMFs technically present a maturity mismatch, it is far more limited because of the liquidity requirements imposed on MMF assets.

will not be able to meet those demands and will experience a run.[160] In the classic bank run, those depositors who withdraw their funds the fastest are typically able to receive payment in full.[161] Those who "run slowest" will likely not receive full payment.[162] This is the so-called first-mover advantage. The classic bank run presents an interesting causal question—does the bank's financial distress trigger the run or does the run cause the bank to fail?[163]

It is somewhat misleading to characterize heavy investor withdrawals from MMFs as a "run" warranting regulatory intervention.[164] Large and rapid movement of assets in the financial markets is common.[165] Rather, it seems that two attributes distinguish a run from normal movement of assets: panic trading and a first-mover advantage. As Mary Schapiro put it, the redemptions from the Reserve Fund and other MMFs during Lehman week were made by "panicked investors."[166] Panic trading implies a degree of irrationality—redemptions that are motivated by fear rather than genuine financial weakness.[167] In contrast, few commentators would characterize the widespread selling of Enron stock following the

160. George Kaufman, *Bank Runs: Causes, Benefits, and Costs*, 7 Cato J. 559, 561–62 (1988), *available at* www.cato.org/pubs/journal/cj7n3/cj7n3-2.pdf.

161. *Id.* at 562.

162. *Id.*

163. *See id.* at 568 (noting the issue and stating that "few bank failures appear to have been directly attributed to runs"). The article further notes that, in the pre-FDIC era, bank runs appeared to exert market discipline on bank management to minimize the risk associated with the bank's loan portfolio. *Id.*

164. *See* SEC Staff Report, *supra* note 8, at 7 (noting that, although many individual MMFs experienced large net redemptions during "the Crisis Month," other funds gained assets during that period); *cf.* Jeffrey N. Gordon & Christopher M. Gandia, *Money Market Funds Run Risk: Will Floating Net Asset Value Fix the Problem?*, 2014 COLUM. BUS. L. REV. 313, 315 (2014) (explaining that "withdrawals [during Lehman week]—call it a run—amounted to approximately $300 billion, approximately 15% of prime money market fund assets").

165. *See, e.g.*, E.S. Browning, *Despite Gains*, *Many Flee Stock Market*, WALL ST. J. (Oct. 23, 2012), http://online.wsj.com/news/articles/SB10000872396390443890304578010500821461868 (describing how "since the market low in March 2009, investors have yanked a net $138 billion from mutual funds and exchange-traded funds that invest in U.S. stocks"); Katy Burne, *High-Yield Bond Funds See $1.9 Billion Outflow in Latest Week*, WALL ST. J. (Dec. 11, 2014), http://www.wsj.com/articles/high-yield-bond-funds-see-1-9-billion-outflow-in-latest-week-1418336091 (describing large sales volume in high yield bond market in response to the fall in oil prices).

166. Schapiro Statement, *supra* note 21.

167. *See, e.g.*, Gillian Wee, *Credit Swaps Show Fear*, *Not Reality*, *Executives Say*, BLOOMBERG (Oct. 3, 2008), http://www.bloomberg.com/apps/news?pid=20601109&sid=a.o1tHRJoe.k&refer=home (describing widening spreads in credit default swaps as based on a "a disconnect between the health of [issuer] balance sheets and investor behavior").

revelation of fraud as "panic selling."[168] Moreover, panic selling is not enough. When the stock market fell more than 1,000 points in a single day, the result of a combination of the Greek debt crisis and technical problems, there was clearly widespread panic, but no one described the sales of stock at free-falling prices as a run.[169] Runs are also characterized by a first-mover advantage, meaning that investor behavior itself causes a shortage or diminution in value of the remainder. This leads investors who would not otherwise have traded to take action in order to avoid losing out entirely.[170] As a result, a run can induce scarcity by creating an abnormal level of investor demand.[171]

Importantly, the mechanics of a run operate differently for an MMF than a bank. A bank holds long-term illiquid assets that cannot readily be converted to cash. As a result, if a substantial number of a bank's depositors all demand their money, it is impossible for the bank to repay them all. In contrast, MMFs hold high-quality short-term assets that typically can be liquidated at or near par value. As a result, under normal market conditions, heavy redemption requests would not create a first-mover problem at an MMF because the MMF could satisfy those redemption requests by liquidating assets.[172]

168. *See, e.g.*, *401(k) Investors Sue Enron*, CNN MONEY (Nov. 26, 2001), http://money.cnn.com/2001/11/26/401k/q_retire_enron_re/ (explaining how Enron employees lost money when they were prevented from selling Enron stock in their 401(k) plans after the company revealed damaging financial information).

169. Tom Lauricella & Peter A. McKay, *Dow Takes a Harrowing 1,010.14-Point Trip*, WALL ST. J. (May 7, 2010), http://online.wsj.com/news/articles/SB10001424052748704370457522775413141259 6 (describing how a trading glitch coupled with concern about the economic situation in Greece led the Dow to swing down more than 1000 points within a single day).

170. *See, e.g.*, BD. OF THE INT'L ORG. OF SEC. COMM'NS, FINAL REPORT, POLICY RECOMMENDATIONS FOR MONEY MARKET FUNDS 7 (2012), *available at* www.iosco.org/library/pubdocs/pdf/IOSCOPD392.pdf (explaining the first-mover advantage as "where investors have an incentive to redeem from a troubled MMF or at the first sign of market distress, since investors who redeem shares early will redeem on the basis of the stable NAV leaving the cost of any loss to be borne by the remaining shareholders").

171. *See* Diamond & Dybvig, *supra* note 156, at 63 (explaining that the cost of liquidating assets, even if those assets have not declined in value, can cause a run to be "self-fulfilling"). This panic trading is not limited to financial assets. *See Panic Buying of Salt in N. Bengal; No Shortage Assures Govt*, BUS. STANDARD (Nov. 15, 2013), http://www.business-standard.com/article/pti-stories/panic-buying-of-salt-in-n-bengal-no-shortage-assures-govt-113111500682_1.html (describing panic buying of salt based on rumors of a shortage).

172. *But see* Kirsten Grind, Gregory Zuckerman & Min Zeng, *Billions Fly Out the Door at Pimco*, WALL ST. J. (Sept. 28, 2014), http://www.wsj.com/articles/billions-fly-out-the-door-at-pimco-1411948188 (describing dramatic outflows at Pimco after departure of its cofounder and potential impact on bond market).

The situation in 2008 was distinctive for three reasons. First, the bankruptcy of Lehman generated substantial losses in the value of MMF assets—the Reserve Fund held 1.2% of its assets in Lehman short-term debt,[173] which it wrote down to zero on September 16, 2008.[174] A loss of this size in money market assets was highly unusual. Second, the economic climate during the fall of 2008 put many MMF investors under economic pressure and, in particular, liquidity pressure, because of the freeze-up in the short-term credit markets.[175] This led MMF investors to withdraw funds to meet their cash flow needs. Third, non-Lehman events, including the bailout of Bear Stearns and the trouble at a number of other financial institutions including AIG, Wachovia, and Citigroup, created widespread concern about the quality (and possible default) of money market debt from other issuers.[176] As a result, the MMFs that experienced a high volume of redemptions could not readily find buyers for their assets.[177]

Both attributes of a run—panic trading and the first-mover advantage—are relevant to the causal relationship between breaking the buck and a run on MMFs. First, the act of breaking the buck may increase the salience to the market of the fact that MMFs do not guarantee the $1 share price.[178] Once the risk of losing money becomes salient, investors may panic and withdraw their funds even from financially stable MMFs. These withdrawals tax the MMF's liquidity, so that those who run slowly may be unable to withdraw their money.[179]

In the case of an MMF, a stable $1 NAV aggravates the situation. So long as the MMF's NAV is sufficiently high, investors can redeem at the $1 share price. But as the MMF's NAV falls below $1 per share,

173. Complaint at 2, Sec. and Exch. Comm'n v. Reserve Mgmt. Co., No. 09 CV 4346 (S.D.N.Y. May 5, 2009); Gordon & Gandia, *supra* note 164, at 315.

174. Gullapalli, Anand & Maxey, *supra* note 2.

175. *See The Credit Crisis*, U. OF MARY WASHINGTON BLOG, http://www.2008financialcrisis.umwblogs.org/analysis/the-credit-crisis/ (last visited March 21, 2015) (explaining that as the "lending markets dried up . . . businesses found it difficult or impossible to obtain the credit required to function normally").

176. *See* INV. CO. INST., MONEY MARKET FUNDS IN 2012, MONEY MARKET FUNDS: WHAT REALLY HAPPENED IN THE 2008 FINANCIAL CRISIS 3 (2012), *available at* www.ici.org/pdf/12_mmf_2008.pdf (describing factors contributing to MMF redemptions).

177. *Id.*

178. *See, e.g.*, Patrick E. McCabe, *The Cross Section of Money Market Fund Risks and Financial Crises* 1–2 (Fed. Reserve Bd. Working Paper No. 2010-51, 2010), *available at* http://www.federalreserve.gov/pubs/feds/2010/201051/201051pap.pdf (describing how the Reserve Fund's breaking the buck "underlined the importance of money fund risks for MMF investors").

179. *See supra* note 170 and accompanying text.

investors can continue to redeem at $1 even if their share of the fund's assets is somewhat less, as long as the NAV is above $0.995. These redemptions deplete the fund's assets because redeeming investors are receiving more than their entitlement—the difference between the fund's actual NAV and $1—and leaving even less for subsequent investors. These redemptions reflect the so-called arbitrage opportunity created by the $1 share price.[180] Importantly, absent heavy redemption pressure, these small deviations between $1 and the fund's actual NAV do not deplete fund assets because the effect is offset by simultaneous purchases that also take place at $1 per share. As a result, the gap has a meaningful effect on fund value only in situations in which redemption demand significantly outpaces purchases. The Reserve case exemplified this effect; early redeemers got out at $1 per share, and other investors received only 99 cents.[181]

The third problem with MMFs is contagion effect. According to one view, the fact that a single MMF breaks the buck alerts the market to the fact that MMFs do not guarantee the $1 share price and may lead investors in other MMFs to redeem their shares even if the MMFs are independent financially.[182] In reality, the situation is more complex. MMFs all hold similar assets—a collection of short-term debt instruments that include repurchase agreements, government securities, certificates of deposit (often from non-U.S. banks), and commercial paper.[183] In recent years, financial firms have issued a substantial percentage of these instruments.[184] If one MMF experiences financial distress, that distress may signal to the market a weakness in the assets held by many other MMFs. This correlation among portfolios, with a likely correlation in portfolio losses as well, produces a contagion effect.[185]

Because an investor has the right to redeem her MMF shares on demand, a heavy volume of redemptions places liquidity demands on

180. *See, e.g.*, Gordon & Gandia, *supra* note 164, at 324–25 (describing the arbitrage argument).

181. *See* Christopher Condon, *Reserve Primary Money Fund Falls Below $1 a Share*, BLOOMBERG (Sept. 16, 2008), http://www.bloomberg.com/apps/news?pid=newsarchive&sid=a5O2y1go1GRU (reporting that investors who requested redemptions by 3:00 PM on September 16th would receive 100 cents on the dollar).

182. *See*, *e.g.*, Gordon & Gandia, *supra* note 164, at 328 n.35.

183. *See id.* at 326.

184. *See, e.g.*, FSOC Proposal, *supra* note 146, at 69,463 (noting that "[m]ost of the short-term financing that MMFs provide to non-governmental entities is extended to financial firms").

185. Gordon & Gandia, *supra* note 164, at 328 n.35 ("The default of a money market security may lead investors at other funds to run not because they are trying to arbitrage a gap but because they want to avoid the realization of loss.").

MMFs that must be met by a sale of assets. The assets that are sold may present little or no default risk and were likely purchased with the expectation that they would be held until maturity. Nonetheless, the need to generate cash may generate fire sale prices—meaning prices less than par value—even for non-distressed assets because active secondary markets do not exist for money market securities. Correlated distress among many MMFs may also lead to market imbalances because the redemption requests create a large number of sellers amid a limited supply of buyers.

Once MMFs begin to sell assets at fire sale prices, the prices themselves generate a feedback effect in that they reduce the market price of the assets. When an MMF calculates its shadow NAV, it is required to mark its assets to market and therefore to incorporate the fire sale prices into its own NAV, even if it is not itself experiencing heavy redemptions. This decline in the shadow NAV may, once disclosed to investors, generate further redemptions.

The 2010 changes to Rule 2a-7 increased the risk of contagion by reducing the pool of permitted investments for MMFs—both increasing quality requirements and reducing the permitted maturity for MMF assets.[186] These changes caused each MMF's portfolio to become more like those of other MMFs. This in turn increases the correlation among MMF values, which magnifies the potential for contagion if one MMF experiences financial distress.

A run on MMFs may affect the overall economy, as was illustrated by the events that occurred during Lehman week. MMFs reduced their purchases of short-term money market assets and, in an effort to meet potential redemption requests, increased their holdings of cash.[187] This reduced the availability of short-term credit to businesses.[188]

186. 2010 Final Rule, *supra* note 68, at 10,060; *see also* Fisch & Roiter, *supra* note 1, at 1022 (describing 2010 rule changes).

187. *See Perspectives on Money Market Mutual Fund Reforms: Hearing Before the Comm. on Banking*, *Hous.*, *and Urban Affairs*, 112th Cong. 29 (2012) (statement of Mary L. Schapiro, Chairman, U.S. Sec. & Exch, Comm'n) ("During the last 2 weeks in September 2008, companies that issued short-term debt were largely shut out of the credit markets.").

188. *Id.*

III. THE 2014 REFORM

A. The SEC's 2014 MMF Rule

On July 23, 2014, the SEC approved a final rule reforming MMF regulation by a divided 3-2 vote.[189] Chair Mary Jo White explained that the reforms would "significantly mitigate[] the risks of a run in money markets funds and . . . limit further contagion should a run occur."[190] The other Commissioners were less sanguine.[191] Commissioner Aguilar, who voted in favor of the reform, described the rulemaking process as "one of [the] most flawed and controversial" ever undertaken by the SEC.[192]

The new rule requires prime institutional MMFs to implement a floating NAV, but it exempts retail and government funds from this requirement.[193] The rule authorizes boards of retail funds to implement gates and fees to discourage redemptions and provides that the power to use these tools is triggered by declines in fund liquidity.[194] Finally, the rule adopts a new and narrow definition of

189. *See* Sarah Lynch, *Split U.S. SEC Adopts Long-Awaited Money Market Fund Reforms*, REUTERS (July 23, 2014), http://www.reuters.com/article/2014/07/23/sec-moneyfunds-vote-idUSL2N0PY1HP20140723. *See* 2014 Final Rule, *supra* note 22, at 47,736. The rule reflected, in substantial part, reforms proposed in the SEC's rulemaking release issued on June 5, 2013. The 2013 release proposed a required floating NAV and gates and fees, stating that it might adopt either alternative or a combination of the two. 2013 Rule Proposal, *supra* note 9, at 36,848.

190. Mary Jo White, Chairman, U.S. Sec. & Exch. Comm'n, Statement at SEC Open Meeting on Money Market Fund Reform (2014), http://www.sec.gov/News/Speech/Detail/Speech/1370542343041 [hereinafter White Statement].

191. *See* Kara M. Stein, Comm'r, U.S. Sec. & Exch. Comm'n, Statement of Commissioner Kara M. Stein (2014), http://www.sec.gov/News/Speech/Detail/Speech/1370542347012 [hereinafter Stein Statement] (identifying problems with the majority's approach); Michael S. Piwowar, Comm'r, U.S. Sec. & Exch. Comm'n, Statement at Open Meeting Regarding Money Market Fund Reform (2014), http://www.sec.gov/News/Speech/Detail/Speech/1370542346300#.U9Zf4sJ0yiN [hereinafter Piwowar Statement] (identifying problems with the majority's approach).

192. Jayne O'Donnell, *SEC Ends $1 A Share for Some Money Funds*, USA TODAY (July 23, 2014), http://www.usatoday.com/story/money/markets/2014/07/23/sec-money-funds-rules/13033749/.

193. Retail funds are defined as funds that have "policies and procedures reasonably designed to limit all beneficial owners of the fund to natural persons." 2014 Final Rule, *supra* note 22, at 47,794. This was a change from the proposed rule, which would have defined retail funds as those that did not allow shareholders to redeem more than $1 million in a single business day. 2013 Rule Proposal, *supra* note 9, at 36,856.

194. In the final rule the fee and gate provisions are explicitly discretionary. A fund may impose such provisions, however, only when a fund's weekly liquid assets drop below 30% of its total assets. *See* 2014 Final Rule, *supra* note 22, at 47,747. The 2010 amendments already required MMFs to maintain 30% of their portfolios in weekly liquid assets. 17 C.F.R. § 270.2a-7(c)(5)(iii) (2012); *see* 2014 Final Rule, *supra* note 22, at 47,738; 2010 Final Rule, *supra* note 68, at 10,113–14.

government MMFs,[195] and exempts such MMFs from both the floating NAV and gates and fees provisions.[196]

In addition to these structural changes,[197] the new rule includes important new disclosure requirements. MMFs are required to provide extensive additional information on their websites.[198] These requirements are supplemented by additional disclosures in the MMF prospectus and marketing materials,[199] in Form N-CR,[200] and in the statement of additional information ("SAI").[201] The requirements include disclosure of the fund's current and historical market-based NAV calculated on a daily basis and rounded to four decimal points—the nearest one ten-thousandth of a cent.[202] Funds are required to disclose any past use of gates and fees[203] and historical sponsor support.[204] Funds must also disclose current and historical information about the percentage of daily and weekly liquid assets in their portfolios as well as current and historical information about net shareholder inflows and outflows.[205]

An important but little-mentioned effect of exempting retail funds from the requirement of a floating NAV is increased segmentation in the mutual fund market. To qualify as retail funds, funds can only permit individual persons to invest.[206] In the capital markets generally, retail investors benefit from the market discipline

195. *See* 2014 Final Rule, *supra* note 22, at 47,794 ("We therefore are revising the definition of a government fund to require that such a fund invest at least 99.5% (up from 80% in the proposal) of its assets in cash, government securities, and/or repurchase agreements that are collateralized by cash or government securities.").

196. *Id.* at 47,791–94. The exemption for government MMFs preserves such funds as a cash-management option for institutional investors. At the same time, it expands the number of funds that remain potentially vulnerable. As the SEC noted in the adopting release, government MMFs experienced substantial outflows in connection with the 2013 debt ceiling impasse. *See* 2014 Final Rule, *supra* note 22, at 47,746. In addition, the capacity of government MMFs to absorb the quantity of assets that will potentially migrate from institutional prime funds is unclear. *See* Letter from Wells Fargo Funds Mgmt., L.L.C., to Elizabeth Murphy, Sec'y, U.S. Sec. & Exch. Comm'n 5 (Apr. 23, 2014), *available at* http://www.sec.gov/comments/s7-03-13/s70313-340.pdf.

197. The rule contained several additional features, including heightened diversification requirements and stress testing. *See* 2014 Final Rule, *supra* note 22, at 47,736.

198. 2014 Final Rule, *supra* note 22, at 47,827–34.

199. *Id.* at 47,815.

200. *Id.* at 47,838.

201. *Id.*

202. *Id.* at 47,829. The requirement that funds calculate and disclose a current market-based NAV is not limited to floating NAV funds. *Id.* at 47,830.

203. *Id.* at 47,832.

204. *Id.* at 47,833.

205. *Id.* at 47,827–29.

206. *Id.* at 47,794.

imposed by more sophisticated institutional investors.[207] With respect to mutual funds, institutions can impose market discipline that limits risk-taking and can impose competitive pressure on advisory fees.[208] Retail investors will lose this benefit if the funds in which they invest are limited to individual investors.

Cognizant of the potentially substantial effect that its rule would have on the viability of MMFs and the secondary effect on the short-term credit markets, the SEC provided that compliance dates for both the gates and fees provision and the floating NAV would not occur until two years after the effective date of the rule,[209] although individual MMFs are permitted to implement them sooner.[210] In addition, the new disclosure requirements for historical data are prospective only. According to Chair White, the new rule "will fundamentally change the way that most money market funds operate."[211]

B. Evaluating the Reforms

The 2014 rule adopts a combination of liquidity gates and fees and a floating NAV, the two regulatory approaches that were the subject of the 2013 rule proposal.[212] As indicated above, numerous commentators have weighed in on the feasibility and effectiveness of

207. *See, e.g.*, Mark Perlow, *Money Market Funds—Preserving Systemic Benefits, Minimizing Systemic Risks*, 8 BERKELEY BUS. L.J. 74, 88 (2011) (explaining that retail investors benefit from the due diligence of institutions even if those institutions invest in different share classes). *But see* Donald C. Langevoort, *Private Litigation to Enforce Fiduciary Duties in Mutual Funds: Derivative Suits, Disinterested Directors and the Ideology of Investor Sovereignty*, 83 WASH. U. L.Q. 1017, 1034 (2005) (noting that segmentation of the mutual fund market already limits market discipline over funds sold primarily to retail investors).

208. Perlow, *supra* note 207, at 89.

209. The SEC itself acknowledged the concern that the regulatory change could itself trigger a run on MMFs. *See* 2014 Final Rule, *supra* note 22, at 47,790–91 ("We acknowledge, as discussed in the Proposing Release and as noted by some commenters, that a transition to a new regulatory regime could itself cause the type of heavy redemptions that the amendments, including the floating NAV reform, are designed to prevent.").

210. *See* 2014 Final Rule, *supra* note 22, at 47,791. Various disclosure requirements are to be implemented sooner. *See id.* at 47,933.

211. White Statement, *supra* note 190.

212. 2014 Final Rule, *supra* note 22, at 47,747, 47,775; 2013 Rule Proposal, *supra* note 9, at 36,849, 36,878. The SEC noted in its releases the reasons for rejecting other reform proposals. For example, the SEC observed that the emergency liquidity facility required access to the federal discount window and that it lacked the authority to grant such access without authorizing legislation. 2013 Rule Proposal, *supra* note 9, at 36,911. Similarly the SEC explained that required capital buffers would prove too costly. *See id.* at 36,907 ("The cost of diverting funds for this purpose represents a significant incremental cost of doing business for those providing the buffer funding.").

the SEC's 2013 proposals, and this Article will not reexamine those comments in detail. Instead, this Article will highlight several reasons why the rule is likely to be ineffective in addressing the SEC's identified concerns about MMF fragility. In addition, the Article will identify key problems with the new disclosure requirements that commentators have largely overlooked.

1. The Floating NAV

The central component of MMF reform proposals since the financial crisis has been requiring MMFs to float their NAV.[213] I have argued elsewhere that a requirement that MMFs float their NAV is misguided.[214] Under the new rule, the floating NAV requirement will only apply to a portion of existing MMFs: MMFs estimated by the SEC to hold almost $1.3 trillion in assets.[215] The costs of moving to a floating NAV are substantial.[216] The SEC's rule was predicated on accounting and tax concessions to simplify compliance issues created by a floating NAV,[217] but it is nonetheless likely that many, if not most, institutional investors will be unwilling or unable to use a floating NAV product.[218] Because each purchase and redemption in such a fund will occur at a different price, investors will face the prospect of negative yields on a regular basis, making funds unsuitable for many types of investors.[219] The SEC itself observes that

213. *See* Letter from Sheila Bair, Chair, Systemic Risk Council, to Elizabeth Murphy, Sec'y, U.S. Sec. & Exch. Comm'n 1 (Sept. 16, 2013) (stating that "[t]he Stable NAV is the Cause of Money Market Funds' Structural Weakness"); *Unfinished Business: Money Fund Reform Lurks in Wake of Financial Crisis*, INVESTMENT NEWS (Sept. 5, 2013, 9:35 AM), http://www.investmentnews.com/article/20130905/FREE/130909961# (identifying a floating NAV as a "victory" for the Fed and the Treasury).

214. *See* Fisch & Roiter, *supra* note 1, at 1004–07.

215. 2014 Final Rule, *supra* note 22, at 47,900.

216. *See, e.g.*, INST. CASH DISTRIBS., ICD COMMENTARY: OPERATIONAL AND ACCOUNTING ISSUES WITH THE FLOATING NAV AND THE IMPACT ON MONEY MARKET FUNDS 3–9 (July 2013), *available at* http://www.sec.gov/comments/s7-03-13/s70313-40.pdf (reviewing the complexities associated with a floating NAV MMF); Letter from Ass'n for Fin. Prof'ls et al., to Mary Jo White, Chairman, U.S. Sec. & Exch. Comm'n 1–2 (July 2, 2013), *available at* http://www.sec.gov/comments/s7-03-13/s70313.shtml (describing accounting, tax, and operational difficulties associated with a floating NAV and questioning whether the IRS can address these difficulties adequately); Letter from F. William McNabb III, Chairman and Chief Exec. Officer, Vanguard, to the Fin. Stability Oversight Council 4 n.12 (Jan. 15, 2013), *available at* https://institutional.vanguard.com /iam/pdf/FSOCmoneyMKT_VG_ comment.pdf (citing comment letters to the SEC and other regulators opposing a floating NAV).

217. 2014 Final Rule, *supra* note 22, at 47,781–882.

218. *See* Letter from Paul Schott Stevens, President & Chief Exec. Officer, Inv. Co. Inst., to Elizabeth Murphy, Sec'y, U.S. Sec. & Exch. Comm'n 5 (Jan. 10, 2011), *available at* http://www.ici.org/pdf/11_sec_pwg_com.pdf.

219. *Id.* at 35.

it is impossible to estimate the extent to which the new rule will cause redemptions from institutional prime MMFs.[220] These redemptions may greatly reduce the availability of short-term credit. In addition, institutional investors may shift their money into unregistered and potentially less stable investment alternatives.[221]

Thus the floating NAV requirement is likely to impose substantial costs. The question for regulators is whether a floating NAV generates corresponding benefits in terms of improving MMF stability.[222] Advocates of a floating NAV argue that a stable NAV creates an incentive for early redemption.[223] They argue that a floating NAV addresses this problem because redemptions always take place at the fund's true NAV.[224]

Even defenders of a floating NAV recognize, however, that a floating NAV reduces the first-mover problem only to a limited degree. The SEC itself has noted the questionable efficacy of a floating NAV in reducing redemptions. As the SEC stated in the proposing release:

> [W]e expect that if a floating NAV had been in place, it could have mitigated some of the heavy redemptions that occurred due to the stable share price. Many factors, however, contributed to these heavy redemptions, and we recognize that a floating NAV requirement is a targeted reform that may not ameliorate all of those factors.[225]

First, on a theoretical level, it is important to recognize that the arbitrage opportunity created by a fixed NAV only exists during the period in which the fund's NAV has fallen below $1 but remains above $0.995. Once the fund must, by virtue of penny rounding, reduce its trading price to 99 cents, the arbitrage opportunity is reversed because purchasing shareholders can obtain, at a cost of 99 cents per share, assets valued at more than that. Of course this effect

220. 2014 Final Rule, *supra* note 22, at 47,896.

221. *See* Letter from James A. McNamara & David Fishman, Managing Dirs., Goldman Sachs Asset Mgmt., to Kevin O'Neill, Deputy Sec'y, U.S. Sec. & Exch. Comm'n 3–4 (July 21, 2014), *available at* http://www.sec.gov/comments/s7-03-13/s70313-383.pdf [hereinafter Goldman Letter].

222. *See, e.g.*, Bus. Roundtable v. Sec. & Exch. Comm'n, 647 F.3d 1144, 1155–56 (D.C. Cir. 2011) (faulting the SEC for failing to consider the economic consequences adequately when adopting the proxy access rule).

223. *See* 2013 Rule Proposal, *supra* note 9, at 36,849 (describing the proposal to require floating NAV).

224. *See* FSOC Proposal, *supra* note 146, at 69,467 (explaining that floating NAV would reduce but not eliminate the first-mover advantage).

225. 2013 Rule Proposal, *supra* note 9, at 36,850.

is purely theoretical in that only two MMFs in history have ever broken the buck, and no MMF has broken the buck but continued to operate as a going concern.

Second, existing empirical evidence does not support the claim that a floating NAV reduces redemption pressure in a time of crisis. In 2008, ultra-short bond funds—the floating NAV alternative to MMFs—experienced comparable levels of redemptions to MMFs.[226] Indeed, the total assets invested in ultra-short bond funds declined by more than 60% from their peak in 2007 to the end of 2008.[227] Similarly, Jeffrey Gordon and Christopher Gandia studied the difference in run rates in European MMFs during the financial crisis and found that none of the difference is explained by whether the NAV is fixed or floating.[228] A likely explanation for these findings is that the same economic factors that cause investors to redeem from an MMF cause them to redeem from a floating NAV fund. Critically, redemption requests create an analogous first-mover advantage at floating rate funds as early redemptions can be satisfied through sales of the funds' most liquid assets.

The key factor contributing to redemption pressure is the stale pricing of mutual fund assets. When an investor redeems mutual fund shares, that redemption request must be honored on the basis of the current value of the MMF's portfolio, calculated as of the 4:00 P.M. close.[229] As noted above, however, the very fact of redemption may require a fund to sell assets at distressed prices, prices that will reduce the fund's NAV.[230] Because the typical fund will maintain a certain liquidity level in order to meet redemption requests, the sale of those assets will generally not take place until after the redemption and will therefore not be reflected in the price at which the redemption occurs.[231] Thus, the claim that the investor in a floating-rate fund exits

226. *See* Letter from Samuel Hanson, Assistant Professor of Fin., Harvard Bus. Sch. et al., to Elizabeth Murphy, Sec'y, U.S. Sec. & Exch. Comm'n 2 (Sept. 16, 2013) ("[T]he recent financial crisis witnessed widespread runs on MMF-like cash-management products with floating NAVs, including ultra-short bond funds in the US and variable NAV MMFs in Europe."); Fisch & Roiter, *supra* note 1, at 1036.

227. *Perspectives on Money Market Mutual Fund Reforms: Hearing Before the S. Comm. on Banking*, *Hous.*, *and Urban Affairs*, 112th Cong. 75 (2012) (statement of Paul Schott Stevens, President and Chief Exec. Officer, Inv. Co, Inst.).

228. Gordon & Gandia, *supra* note 164, at 350 (finding that "none of the contraction was explained by the difference between accumulating and stable NAV").

229. *See* 17 C.F.R. § 270.22c-1 (2014).

230. *See supra* notes 182–85.

231. Moreover, in a time of crisis, the inability to value distressed assets makes the fund's calculation of NAV inherently unreliable. The court observed as much in the case of the Reserve Fund, finding that the Fund's calculation of NAV on September 15 and 16,

at the fund's true value is misstated—in times of heavy redemption, all funds face a first-mover advantage.

Floating the NAV is likely to increase this redemption pressure because investors will then, on a regular basis, expect share prices to decline in response to various economic factors.[232] In a stable-value fund, MMF managers face pressure to maintain the $1 NAV, and, anticipating that, investors do not expect an arbitrage opportunity to materialize. The empirical evidence indicates that this pressure is effective because the NAVs of MMFs fluctuated very little even in periods of substantial economic turmoil.[233] The historical stability of MMFs' NAVs belies the claim that a stable NAV is misleading or the result of a regulatory dispensation.[234] MMFs trade at a $1 share price because their sponsors manage the portfolios in a way that minimizes any discrepancy between the underlying share value and a dollar.

To eliminate the first-mover advantage, MMFs must do more than float their NAVs: they must satisfy redemption requests at fair value. For reasons described in further detail below, it is difficult to price MMF assets accurately.[235] As a result, the floating NAV will require MMFs to sell and redeem shares based on "noisy guesstimates of true value."[236] These transactions have the potential to generate far greater unfairness between shareholders than the arbitrage opportunity to which the floating NAV is addressed.

2. Gates and Fees

As with the floating NAV, the SEC's Gates and Fees alternative appears poorly suited to address the central problem identified by regulators as justifying further reform—run risk. Indeed, as I have

2008, was unreliable, even after the Fund broke the buck. *See* SEC v. Reserve Mgmt. Co. (*In re* The Reserve Fund Sec. & Derivative Litig.), 673 F. Supp. 2d182, 198 (S.D.N.Y. 2009).

232. *See* Piwowar Statement, *supra* note 191, at 4 ("[E]ven if the NAV floats, sophisticated investors with significant money at stake that have a lower risk tolerance, the very investors at which the floating NAV is aimed, will still have incentive to redeem ahead of other investors.").

233. *See Frequently Asked Questions About the Pricing of U.S. Money Market Funds*, INVESTMENT COMPANY INST. (Jan. 25, 2011), http://www.ici.org/mmfs/basics/faqs_pricing_mmfs (reporting that "[a]verage per-share market values for prime money market funds . . . varied between $1.0020 and $0.9980 during the decade from 2000 to 2010.").

234. *See* William A Birdthistle, *Breaking Bucks in Money Market Funds*, 2010 WIS. L. REV. 1155, 1161 (arguing that the SEC has granted MMFs a regulatory subsidy that allows them to obfuscate their true value from investors).

235. *See infra* Part III.A.3.

236. Letter from James J. Angel, Assoc. Professor of Fin., Georgetown Univ., to U.S. Sec. & Exch. Comm'n 4 (Sept. 17, 2013), *available at* http://www.sec.gov/comments/s7-03-13/s70313-228.pdf.

argued elsewhere, gates and fees potentially present a greater threat to MMF investors than a loss in principal because they jeopardize the investors' immediate access to their funds.[237] Immediate access is a key factor motivating investor use of MMFs.[238]

One problem with the Gates and Fees alternative is its complexity. Cognizant of the fact that a mandatory gate or fee would likely be a strong negative for many investors, the SEC modified its Gates and Fees alternative from the proposing release to make the use of gates and fees discretionary rather than mandatory. The final rule empowers fund boards to impose liquidity fees of up to 2% or suspend redemptions (impose gates) for up to ten business days if a fund's weekly liquid assets fall below 30% of its total assets.[239] At the same time, boards are required to impose a 1% liquidity fee if the fund's weekly liquid assets fall below 10% of its total assets unless the fund board decides that such a fee is not in the best interests of the fund.[240] Thus the rule provides an opt-in for 2% gates and fees and an opt-out for 1% fees. The SEC failed to provide meaningful guidance on the "best interests" standard[241] and in fact cited investor inability to predict the manner in which fund boards would exercise this discretion as a benefit.[242] Without a clear indication as to the factors that a particular board will consider in imposing a gate or fee, it will be impossible for investors to price this risk in deciding whether to invest in an MMF.

In addition, as Commissioner Kara Stein has noted, gates and fees are likely to be counterproductive both in addressing run risk and the greater problem of systemic contagion.[243] Superficially, of course, gates and fees can reduce redemption pressure by making redemption more costly. If investors must pay a 1% or 2% fee to redeem their shares, they will be less willing to redeem. Similarly, while a gate is in effect, it completely prevents redemptions. Nonetheless, both gates and fees exacerbate run risk near the point of the trigger. Specifically, if investors are aware of the prospect of a draconian fee or complete bar on withdrawals, they may seek to redeem as the fund approaches

237. *See* Fisch & Roiter, *supra* note 1, at 1046–48.

238. *See* Goldman Letter, *supra* note 221, at 1–3 (stating that MMF investors redeem early primarily out of a concern over loss of liquidity).

239. 2014 Final Rule, *supra* note 22, at 47,747.

240. *Id.*

241. *Id.* at 47,761.

242. *Id.* at 47,753.

243. *See* Stein Statement, *supra* note 191, at 3 (explaining why gates are "the wrong tool" to address run risk).

the trigger point for the imposition of the gate or fee.[244] The result would be precisely the type of first-mover advantage that this Article has identified as a critical component of a run.[245]

The incentive to run under a system with gates and fees would be more powerful than the arbitrage opportunity associated with penny-rounding because the liquidity fees authorized under the rule are far greater than the 0.5% differential that the SEC identified as a concern under the status quo. Importantly as well, the fund board's discretion as to whether to impose a gate or fee would generate uncertainty about any particular board's willingness to do so.[246] Under the final rule, the board's power to impose gates and fees is triggered if a fund's liquidity drops to twice the limit legally required by Rule 2a-7,[247] suggesting that boards will potentially be able to exercise this power with some frequency. This uncertainty could lead investors to redeem well in advance of any fund distress, in which case the investor redemptions, rather than economic developments, could cause the fund to fail.

In addition, because an abrupt decline in liquidity would trigger the fund's power to impose both gates and fees, gates and fees could be triggered by events that have nothing to do with the soundness of the fund or the quality of its assets.[248] As Eric S. Rosengren, the president of the Federal Reserve Bank of Boston wrote in a comment letter to the SEC, gates and fees could be triggered simply by a few large investors in a fund withdrawing their money at the same time.[249] Rather than simply monitoring the quality of an MMF's portfolio assets or the degree of risk undertaken by the MMF's sponsor, investors would now have to worry about the behavior of their fellow

244. *See* Goldman Letter, *supra* note 221, at 2 ("To avoid payment of a fee or loss of liquidity of their investment as a result of a gate, investors can be expected to redeem shares of a money fund at the first sign of loss of liquidity.").

245. *See, e.g.*, Letter from Eric Rosengren, President, Fed. Reserve Bank of Bos. et al., to Elizabeth Murphy, Sec'y, U.S. Sec. & Exch. Comm'n 7 (Sept. 12, 2013) [hereinafter Rosengren Letter], *available at* www.bostonfed.org/news/press/2013/pr091213-letter.pdf (explaining that "investors could have an incentive to redeem before their fund breaches the WLA threshold" and terming this shortcoming "substantial").

246. *See, e.g.*, Gordon & Gandia, *supra* note 164, at 367 (explaining that the gates and fees alternative "disserves systemic stability because it does not establish clear expectations about loss realizations and loss absorption").

247. 2014 Final Rule, *supra* note 22, at 47,747.

248. Although to be fair, rapid redemptions should not be a triggering event in the context of a strong market for money market assets because the MMF could restore its liquidity through sales. Such sales would, of course, be constrained by the limited trading that occurs in some money market assets, such as repurchase agreements.

249. Rosengren Letter, *supra* note 245, at 7.

investors and any significant demands that such behavior might impose on the fund's liquidity.

Moreover, a single fund's imposition of a gate or fee could scare investors in other funds into redeeming to avoid facing a similar restriction. This would cause one MMF to generate a spillover effect on the industry.[250] Given that the risk of panic may be highest among individual investors—who would also be least able to evaluate the fund's disclosures in an effort to ascertain the likelihood that a gate or fee will actually be imposed—the use of gates and fees for retail MMFs is particularly problematic. Rosengren's letter warns, "As this represents a new run mechanism that does not exist under the status quo, the fees-and-gates alternative may actually increase run risk relative to not enacting further reform."[251] Put differently, Sheila Bair, former FDIC Chair, observed that gates and fees create a new source of uncertainty—the type of uncertainty that generates a run—uncertainty by investors about their ability to withdraw their money.[252]

The biggest problem with gates and fees, however, is that mutual fund boards face powerful disincentives to use them. Although the circumstances under which the imposition of a gate or fee is warranted are likely to be extremely rare, imposing a gate or fee would irreparably damage the reputation not just of the MMF itself but of its sponsor too. Investors who have been subjected to a gate or fee are unlikely to continue to invest with that fund family in the future. Prospective investors will be wary of investing in a fund that has implemented such restrictions in the past and, under the new rule, MMFs will have to disclose any use of a gate or fee for the next ten years.[253] In a highly competitive industry, there are reasons to believe that the use of gates or fees will limit a fund sponsor's ability to attract investments to a degree that makes the survival of the sponsor questionable. This will be a major concern for a board considering the exercise of these powers. Although gates and fees may facilitate the liquidation of an irreparably damaged MMF,[254] they are unlikely to be

250. *See* Goldman Letter, *supra* note 221, at 3 (explaining that gates and fees may lead to the very type of contagion the reform seeks to prevent).

251. Rosengren Letter, *supra* note 245, at 7.

252. *Examining the SEC's Money Mkt. Fund Rule Proposal: Hearing Before the Subcomm. on Capital Mkts. & Gov't Sponsored Enters. of the H. Comm. on Fin. Servs.*, 113th Cong. 54–55 (2013) (statement of Sheila C. Bair, Chair, Systemic Risk Council).

253. 2014 Final Rule, *supra* note 22, at 47,820.

254. I have argued elsewhere that a partial gate would be a useful tool for boards to use in circumstances in which it must break the buck. *See* Fisch & Roiter, *supra* note 1, at 1046–48. Our proposal differs from the rule in that it would only impose a gate as a last

implemented for funds that are not terminal. As such, their value in enhancing MMF stability is questionable.

3. The New Disclosure Requirements

True to the disclosure orientation of the federal securities laws,[255] the new rule adopts an extensive menu of additional required disclosures that offer independent reasons for concern.[256] First, voluminous disclosure requirements may overwhelm investors and limit their ability to ascertain useful information about their investments.[257] The problem of information overload is particularly apparent in mutual fund disclosure; commentators have observed for years that mutual fund regulation mandates too many disclosures that are of questionable value to investors.[258] Most investors already complain that mutual fund disclosures are confusing and contain too much information,[259] so much so that research conducted in 2006 found that more than half of mutual fund investors read the fund prospectus very little or not at all, and only 8% read the prospectus in full.[260] Moreover, because of the forced market segmentation between institutional and retail funds, retail investors will not benefit from the market discipline imposed by more sophisticated institutions that might use these disclosures more effectively.[261]

Second, and perhaps more problematically, the disclosure is designed to make MMF portfolios, redemption requests, and liquidity levels more transparent, ostensibly to enable more effective investor

resort and would limit the size of the gate so as to allow investors to redeem the majority of their funds without delay.

255. *See, e.g.*, Thomas Lee Hazen, *Social Networks and the Securities Laws*, 90 N.C. L. REV. 1735, 1741 (2012) ("The federal securities laws do not focus on the merits of investments but rather are based on disclosure to allow sufficiently informed investors to fend for themselves.").

256. The new disclosure and reporting requirements take up almost 200 pages of the adopting release, from page 288 to 485. Money Market Fund Reform; Amendments to Form PF, Securities Act Release No. 33-9616, 288–485 (Oct. 14, 2014), *available at* http://www.sec.gov/rules/final/2014/33-9616.pdf.

257. *See, e.g.*, Troy A. Paredes, *Blinded by the Light: Information Overload and Its Consequences for Securities Regulation*, 81 WASH. U. L.Q. 417, 419 (2003) (identifying the problem of information overload and explaining how too much disclosure can be counterproductive).

258. Barbara Black, *Are Retail Investors Better Off Today?*, 2 BROOK. J. CORP. FIN. & COM. L. 303, 337 (2008).

259. SANDRA WEST & VICTORIA LEONARD-CHAMBERS, INV. CO. INST., UNDERSTANDING INVESTOR PREFERENCES FOR MUTUAL FUND INFORMATION 23 (2006), *available at* www.ici.org/pdf/rpt_06_inv_prefs_full.pdf.

260. *Id.* at 25.

261. *See supra* note 207 and accompanying text (explaining how the retail exemption will increase market segmentation).

monitoring. Yet, active investor monitoring of MMFs is of uncertain value. Apart from the question of whether MMF investors have the necessary skill set to evaluate MMF risk on the basis of the required disclosures, the private money aspect of MMF is in tension with a high level of information sensitivity. As Tri Vi Dang and others have argued in the context of bank secrecy, it may be desirable to maintain a level of information opacity for financial institutions that produce private money or money equivalents.[262]

Of the new disclosure requirements, two are of particular concern. The first is the requirement that all MMFs calculate and disclose a market-based NAV on a daily basis.[263] For floating value MMFs, this is the price at which the fund issues and redeems shares; for stable value MMFs, it is a shadow NAV.[264] Importantly, the rule requires that, in both cases, the calculation be made to four decimal places or to the nearest ten thousandth of a cent.[265] This high level of precision is explicitly designed to create an artificial appearance of volatility in a fund's NAV. The SEC rejected imposing a precision requirement analogous to that used by other mutual funds, a NAV rounded to three decimal places,[266] on the basis of empirical data showing that only with the more stringent disclosure requirement would MMF prices appear to fluctuate.[267]

As a result, the disclosure conveys a false degree of price fluctuation. The ICI describes the SEC's proposal as "an artificially sensitive pricing scheme to force 'movement' in the NAVs of the funds."[268] More troubling is the fact that the use of four decimal places suggests a scientific degree of accuracy to the valuation process that simply is not present.[269] In fact, the opposite is true. As noted above, many of the assets held by MMFs rarely trade—they are held

262. *See* Tri Vi Dang et al., *Banks as Secret Keepers* 1 (Nat'l Bureau of Econ. Research, Working Paper No. 20255, 2014) (defending bank opacity as efficient).

263. 2014 Final Rule, *supra* note 22, at 47,829–30.

264. *Id.* at 47,830 & n.1094.

265. *Id.* at 47,829.

266. *Id.* at 47,779 (acknowledging that the requirement is "a more precise standard than other mutual funds use today").

267. *Id.* at 47,779–80 (reporting that, according to staff data, less than 5% of MMFs would have fluctuated in price during the three years between November 2010 and November 2013 under the standard applicable to other mutual funds).

268. Comment Letter from ICI to U.S. Sec. & Exch. Comm'n 41 (Sept. 17, 2013), *available at* http://www.ici.org/pdf/13_ici_mmf_ltr.pdf.

269. *Cf.* Comment Letter from Presidents of the Fed. Reserve Banks to the Fin. Stability Oversight Council 1 (Feb. 12, 2013), *available at* http://www.bostonfed.org/news/press/2013/pr021213-letter.pdf (arguing that accurate market-based NAVs are a critical part of any reform option).

to maturity and rolled over.[270] This means that when a fund calculates its NAV, current market prices for the securities may not be readily available.[271]

In the absence of an available market price, funds are required to determine the "fair value" of the assets they hold.[272] Fair value determinations are required for all investment funds, but the valuation methodology has a greater impact on funds that hold a large proportion of assets that do not have readily available market prices.[273] Fair valuation methodology incorporates models, predictions and multi-factor tests.[274] As a result, although MMF prices will be calculated to four decimal places, they will incorporate valuations that are not scientific but subjective and imprecise.[275]

Concededly, the new rule reflects an important modification from the 2013 rule proposal—it authorizes stable NAV funds to

270. *See infra* Part I.A.

271. *See* Comment Letter from Catherine T. Dixon, Chair ABA Fed. Regulation of Sec. Comm., to Elizabeth M. Murphy, Sec'y, U.S. Sec. & Exch. Comm'n 26 (Sept. 30, 2013) [hereinafter Dixon Letter], *available at* http://www.sec.gov/comments/s7-03-13/s70313-249.pdf (explaining that, for most money market securities, there can be no secondary market prices because "there is no, or virtually no secondary market"). In addition, MMF boards may be faced with reflecting economic developments that affect liquidity but not default risk in MMF pricing, despite the absence of principles for making these judgments. An example is the pricing of money market assets, such as repurchase agreements, during the time that they are subject to the two-day stay applicable to qualified financial contracts of a systemically important finical institution ("SIFI') that is subject to a resolution proceeding under Dodd-Frank. *See*, *e.g.*, Darrell Duffie & David Skeel, *A Dialogue on the Costs and Benefits of Automatic Stays for Derivatives and Repurchase Agreements*, *in* BANKRUPTCY *NOT* BAILOUT: A SPECIAL CHAPTER 14, at 133, 140–41 (Kenneth E. Scott & John B. Taylor eds., 2012) (describing the two-day stay). While it is unclear how these assets should be priced during the stay, it is clear that the constraint on their liquidity cannot be ignored from a fair value perspective.

272. *See* Compliance Programs of Investment Companies and Investment Advisers, Inv. Co. Rel. No. 26299, 68 Fed. Reg. 74,714, 74,718 n.21 (Dec. 24, 2003) (describing process of determining fair value).

273. *See, e.g.*, Disclosure Regarding Market Timing and Selective Disclosure of Portfolio Holdings, Investment Company Act Release No. 26418, 69 Fed. Reg. 22,300, 22,304–05 (Apr. 23, 2004), *available at* http://www.sec.gov/rules/final/33-8408.htm (adopting amendments to Form N-1A and other registration forms and explaining "that funds are required to use fair value prices any time that market quotations for their portfolio securities are not readily available (including when they are not reliable)"). The release noted that MMFs were then subject to different pricing requirements under Rule 2a-7. *Id.* at 22,305.

274. *See* Dixon Letter, *supra* note 271, at 26 (explaining that techniques for valuing MMF assets include "mark-to-model" pricing and "matrix pricing"). Both techniques provide relatively imprecise "estimates" of value, rather than true market value.

275. *See, e.g.*, Ian McDonald & Tom Lauricella, *Mutual Funds' Pricing Flaw*, WALL ST. J. (Mar. 24, 2004), http://online.wsj.com/news/articles/SB108007959483063307 (explaining that fair value pricing techniques "are only estimates and therefore can easily produce varying numbers").

continue to use amortized cost valuation.[276] Both fixed and floating NAV funds can also continue to use amortized cost valuation for portfolio securities with a remaining maturity of sixty days or less.[277] Importantly, however, the adopting release warns that funds can only use amortized cost valuation if the "board determines that the amortized cost of the security is fair value."[278] For the reasons noted above, this determination may prove challenging. A substantial proportion of Lehman's borrowing, for example, was in the repurchase agreement market, and it is not clear when boards would have been required to value this debt at less than amortized cost as Lehman's financial condition declined in 2008.[279] An additional consequence of this concession is that it may drive MMFs to concentrate their portfolios to an even greater degree in the very shortest-term assets,[280] with potentially significant effects for the distribution of demand for short-term credit.

In addition, as noted above, mutual fund pricing is inevitably stale because it does not account for the effect of pending economic developments and redemption requests that will affect the value of securities that must be sold to meet pending redemption requests.[281] Given that floating NAV funds will need to trade at these stale prices, the valuation methodology creates the potential for substantial intra-shareholder disparities.

The difficulty of accurately computing fair value[282] and the potential liability exposure associated with a failure to do so were

276. *See* 2014 Final Rule, *supra* note 22, at 47,736 (explaining the importance of amortized cost valuation for intraday liquidity).

277. *Id.* at 47,812.

278. *Id.*

279. *See, e.g.*, Peter Eavis, *Lessons of Lehman's Flighty Funding*, WALL ST. J. (Sept. 7. 2010), http://online.wsj.com/news/articles/SB10001424052748703713504575475532391301148 (citing Financial Crisis Inquiry Commission's findings about Lehman's repurchase agreement exposure). It is also unclear how a fund board could have made this determination given the expectation by many market participants that the government would rescue Lehman. *See* William O. Fisher, *Predicting a Heart Attack: The Fundamental Opacity of Extreme Liquidity Risk*, 86 TEMPLE L. REV. 465, 498–504 (2014) (explaining that neither credit rating agencies nor the CDs market recognized Lehman's growing liquidity risk during 2008).

280. MMF holdings are already concentrated in very short-term debt. For example, the SEC stated that, as of February 2014, approximately 56% of the assets of prime MMFs had maturities of sixty days or less. 2014 Final Rule, *supra* note 22, at 47,812 n.874.

281. *See supra* text accompanying notes 231–36.

282. The SEC recognized the challenges of determining a market-based NAV in its adopting release; indeed, it devoted an entire section of the release to providing additional guidance on the topic of fair valuation. 2014 Final Rule, *supra* note 22, at 47,812. Unfortunately, the guidance left much to be desired. The guidance reminded fund boards that their duty to determine whether prices constituted fair value is nondelegable but

recently demonstrated in the Morgan Keegan case.[283] The five Morgan Keegan bond funds at issue, like MMFs, held fixed-income securities that were rarely traded. As a result, the funds had to determine fair value for securities that constituted more than 60% of the funds' assets.[284] The SEC brought proceedings against the funds, their employees, and their board of directors for failing to apply appropriate procedures to calculate the funds' NAV.[285] Although Morgan Keegan is an extreme case in that, according to the SEC, the funds' valuations were fraudulently manipulated,[286] the litigation illustrates the complexity of the fair value determination.[287]

The SEC's new rule also imposes troubling requirements with respect to the disclosure of sponsor support, reflecting the SEC's view that sponsor support contributes to the fragility of MMFs.[288] The provisions seek to reduce investor reliance on the possibility of sponsor support and to increase the disincentive for sponsors to provide such support. These objectives are troubling in that sponsor support has historically been a key factor enhancing MMF stability.

highlighted the potential value of third-party pricing services in assisting the board in this determination. *Id.* In light of the controversy associated with reliance on third parties in the context of credit rating agencies and proxy advisors, the SEC's suggestion of regulatory approval for this reliance is surprising. *See, e.g.*, SEC Staff Legal Bulletin No. 20 (IM/CF) (June 30, 2014), *available at* http://www.sec.gov/interps/legal/cfslb20.htm (providing guidance on when institutional investors may reasonably rely on voting recommendations supplied by third-party proxy advisors).

283. J. Kenneth Alderman, Investment Company Act Release No. 30300, 105 SEC Docket 693 (Dec. 10, 2012), *available at* http://www.sec.gov/litigation/admin/2012/ic-30300.pdf.

284. *Id.*

285. *See, e.g.*, Order Making Findings and Imposing a Cease and Desist Order Pursuant to Section 9(f) of the Investment Company Act of 1940, Investment Company Act Release No. 30557, 2013 WL 2646182 (June 13, 2013), *available at* http://www.sec.gov/litigation/admin/2013/ic-30557.pdf [hereinafter Morgan Keegan Order] (announcing settlement of enforcement proceeding against eight Morgan Keegan directors).

286. Morgan Asset Management, Inc. et al., Investment Company Act Release No. 29704, 101 SEC Docket 1369 (June 22, 2011).

287. *See* Morgan Keegan Order, *supra* note 285 (describing deficiencies in valuation procedures employed by the directors). *See generally An Introduction to Fair Valuation*, INV. CO. INST. (Spring 2005), http://www.idc.org/pdf/05_fair_valuation_intro.pdf (providing guidance on fair value determination).

288. *See, e.g.*, *Perspectives on Money Market Mutual Fund Reforms: Hearing Before the S. Comm. on Banking, Hous., & Urban Affairs*, 112th Cong. 29 (2012) (statement of Mary L. Schapiro, Chairman, U.S. Sec. & Exch. Comm'n) (noting that "100 funds were bailed out by their sponsors during September 2008"); *see also* Sean Collins, *Is SEC Data Misleading the Public on Sponsor Support of Money Market Funds?*, ICI VIEWPOINTS BLOG (June 21, 2012), http://www.ici.org/viewpoints/view_12_mmfs_fund_support (explaining that the provision of sponsor support does not mean an MMF is in danger).

To achieve the first objective, the rule requires MMFs to inform prospective investors that "[t]he 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."[289] The SEC explains that this language is designed to "emphasize to investors that they should not expect a fund sponsor to provide financial support."[290] Although, under current law, the statement is certainly factually accurate, given the historical willingness of sponsors to provide such support, it is not clear what message investors are to take from this emphasis.

The message is particularly confusing in the context of the additional new requirement that sponsors disclose all prior instances in which they have provided support over the past ten years.[291] One possible reading of the disclosures is that investors should ignore the statement about legal obligation because this sponsor has historically gone beyond its obligations and voluntarily provided support. Another possible implication is that, despite the sponsor's past practice of providing support when necessary, this support is not to be trusted.

Beyond these mixed messages is the question of how investors should interpret a sponsor's prior practice of providing support. On the one hand, the disclosure might mean that the sponsor has stood behind its fund and has the financial wherewithal to do so. Alternatively, the fact that a fund required prior sponsor support might signal that it is poorly managed or takes excessive risks. Absent some meaningful indication of what sponsor support means, it is difficult to understand how investors can use this information to make informed investment choices.[292]

Regardless of the effect of the signal, requiring sponsors to disclaim financial responsibility for a fund's NAV may reduce their willingness to assume such responsibility. Once a sponsor is forced to tell investors that it need not provide support, it may be unwilling to provide such support voluntarily. Similarly, in the face of a detailed disclosure requirement that will extend for the next ten years,

289. 2014 Final Rule, *supra* note 22, at 47,816. The statement also adds language warning investors of the possibility that the fund will impose gates and fees. *Id.*

290. *Id.* at 47,817.

291. *Id.* at 47,824.

292. The SEC itself indicated some confusion as to this point. *See id.* at 47,825. (explaining that "[t]he disclosure of affiliate sponsor support could have additional effects on capital formation, depending on whether investors interpret financial support as a sign of money market fund strength or weakness").

sponsors may be less willing to provide support in the face of weakness or may delay providing support in hopes that it will prove unnecessary rather than acting promptly before investors become concerned. Either way, MMF stability is reduced.

IV. MANDATORY SPONSOR SUPPORT—A NEW APPROACH TO MMF REFORM

A. A Proposal for Mandatory Sponsor Support

As noted above, the SEC's long-awaited reforms are unlikely to increase MMF stability and may, in fact, be counterproductive. Accordingly, this Article offers a new approach to MMF reform—mandated sponsor support of the $1 share price. This Article proposes that the SEC amend Rule 2a-7 to require sponsors of stable-value MMFs to support the $1 share price. Sponsors would be required to commit to support as a condition for offering a stable-value NAV MMF. Put differently, the proposal would provide MMF sponsors with a choice. Sponsors could continue to offer a stable NAV MMF, but if they did so, they would be required to commit to maintain the $1 share price. Alternatively, sponsors could offer a floating NAV MMF, which could be regulated in accordance with the 2014 rule.[293]

The Article's rationale for embracing sponsor support is the critical structural difference between MMFs and banks. MMFs, like other investment funds, consists of a pool of assets that are segregated from the assets of their sponsors. Redemptions from an MMF are made from the MMF's assets, not from the sponsor's assets. Although the MMF sponsor manages the fund, its financial structure is linked to the MMF only to the extent that it receives fees for the services provided to the MMF.

As John Morley has explained, this separation of investments and management is an important and efficient feature of mutual funds because it critically changes the risk exposure of mutual fund investors, who are not exposed to the general operational risks of the mutual fund sponsor.[294] The separation also means that, as a general rule, sponsor assets are not available to MMF investors. Sponsor support is an exception to this traditional separation because it makes sponsor assets available to MMF investors in the event of MMF

293. Although this Article does not favor a floating NAV, it retains the floating NAV to broaden the pool of potential MMF sponsors beyond those who could commit credibly to provide adequate support.

294. Morley, *supra* note 30, at 1228, 1258–59.

distress. Critically, sponsor support is conceptually possible only because the assets of the sponsor are an independent resource rather than part of the MMF's portfolio value.

Banks, in contrast, lack this separation of investments and management. Bank deposits are a loan from the depositor to the bank, and depositors look to the general assets of the bank to satisfy this obligation. The bank's financial fragility therefore poses a risk to depositors, and this risk is the source of bank runs. Banks lack an analogous option of sponsor support because the bank's resources already stand behind its obligations, and there is no additional pool of assets to supplement those resources.

Experience has demonstrated the effectiveness of sponsor support for MMFs that faced substantial redemptions or other forms of financial distress. The SEC staff reported that, during the critical 2007–2008 time frame, almost 20% of all money market funds received sponsor support or SEC no-action approval of such support.[295] According to Moody's, at least 145 MMFs received sponsor support prior to 2007.[296] Brady, Anadu, and Cooper documented seventy-eight funds that received direct sponsor support during the 2007–2011 time frame.[297]

Importantly, sponsor support increases price stability.[298] The prevalence of sponsor support explains why MMFs so rarely break the buck. As McCabe demonstrates, for example, sponsor support was highly effective in stabilizing MMFs during the asset-backed commercial paper crisis of 2007, and no MMF broke the buck.[299] McCabe also demonstrates that, after the Reserve Fund broke the buck, MMFs with weaker sponsors experienced higher levels of redemptions.[300]

Sponsors have provided support to their MMFs in multiple ways. One of the most common—and the most frequently overlooked—is through discretionary fee waivers.[301] Although MMF advisory fees are

295. 2013 Rule Proposal, *supra* note 9, at 36,840 n.45.

296. *See* Henry Shilling, *Sponsor Support Key to Money Market Funds*, MOODY'S INVESTORS SERVICE 3 (Aug. 9, 2010), http://www.alston.com/files/docs/Moody's_report.pdf (describing various types of sponsor support).

297. Steffanie A. Brady, Ken E. Anadu & Nathaniel R. Cooper, *The Stability of Prime Money Market Mutual Funds: Sponsor Support from 2007 to 2011*, at 4 (Federal Reserve Bank of Boston, Working Paper 2012), *available at* http://www.bostonfed.org/bankinfo/qau/wp/.

298. *See* McCabe, *supra* note 178, at 1–2.

299. *Id*. at 8.

300. *Id*. at 35.

301. The fact that even the SEC has overlooked the importance of fee waivers is demonstrated by the fact that its new disclosure requirement for sponsor support does not

set by contract, fund managers have the discretion to waive the fees in whole or in part, and fund managers regularly do so.[302] Fee waivers do not require approval from the fund's board or the SEC.[303] These waivers have the effect of shifting capital from the investment advisor to the fund itself. Fee waivers have been common for many years; the practice long predates the financial crisis.[304] Susan Christoffersen found that, for example, between 1991 and 1995, over half of retail MMFs and nearly 80% of institutional MMFs waived all or part of their fees.[305]

The extent to which MMFs have used fee waivers has increased dramatically since the financial crisis. Since 2008, MMFs waived a total of $24 billion in fees.[306] In 2013 alone, MMF fee waivers totaled $5.8 billion.[307] A key reason for the fee waivers is the low interest rates that are currently available on money market assets—absent fee waivers, the funds would generate negative returns.[308]

The widespread use of fee waivers demonstrates the willingness of fund sponsors to forgo profits and to absorb virtually all the expenses of operating the funds.[309] By waiving their fees, managers are transferring the waived amount to the funds to support their NAVs, and absorbing the funds' losses on behalf of the funds' investors.[310] Importantly, by structuring sponsor support as a fee

include fee waivers. 2014 Final Rule, *supra* note 22, at 47,822 n.990. Technically the exclusion is for "routine" fee waivers, but the release does not define the term routine. *Id.*

302. *See, e.g.*, Susan Christoffersen, *Why Do Money Fund Managers Voluntarily Waive Their Fees?*, 56 J. FIN. 1117, 1119–25 (2001) (providing data on the frequency and extent of voluntary fee waivers by MMFs).

303. *Id.* at 1119.

304. *See id.* (stating that "[f]und managers have used fee waivers since the late 1970s").

305. *Id.* at 1139.

306. Tim McLaughlin, *U.S. Stock Fund Costs Fall; Money Market Fee Waivers Hit $5.8 Bln*, REUTERS (May 14, 2014), http://www.reuters.com/article/2014/05/14/funds-stocks-fees-idUSL1N0NZ13320140514 (citing study by the Investment Company Institute).

307. *Id*. By way of comparison, total fee waivers in 1995 were $348 million. *See* Christoffersen, *supra* note 302, at 1120.

308. McLaughlin, *supra* note 306; *see also* Brett Philbin, *Schwab's Profit Falls 20% on Lower Fees*, MARKETWATCH (Apr. 16, 2012), http://www.marketwatch.com/story/schwabs-profit-falls-20-on-lower-fees-2012-04-16 (explaining that Schwab was waiving fees on MMFs "so that client yields don't turn negative").

309. *See* McLaughlin, *supra* note 306 ("Money market fund advisers and their distributors pay for waivers, forgoing profits and bearing nearly all of the expense of running the funds.").

310. *See* Sam Mamudi, *Schwab Results Highlight Money-Market Fund Hit*, MARKETWATCH (Apr. 15, 2010), http://www.marketwatch.com/story/money-market-fee-waivers-hit-schwab-top-line-2010-04-15 (reporting that Charles Schwab lost $125 million in first quarter revenues due to MMF fee waivers in 2010); Philbin, *supra* note 308 (explaining that MMF fee waivers had caused Schwab's reported profit to fall by 20%).

waiver, in which the fund manager has a contractual entitlement to a payment and then voluntarily and discretionarily waives that payment, MMFs avoid the accounting and regulatory complications that would accompany an explicit guarantee or ex-ante commitment. Although current fee waivers are informal, discretionary, and largely clandestine, they demonstrate the viability of sponsor support in enhancing MMF stability.

In addition to fee waivers, sponsors provide support by purchasing distressed assets from a fund at amortized cost, providing direct injections of capital or liquidity, or providing letters of indemnity or other types of guarantees.[311] As history demonstrates, sponsors have a strong incentive to support their MMFs. Breaking the buck could irreparably damage a sponsor's reputation and make it unable to continue to operate.[312] Importantly, for the vast majority of sponsors, MMFs represent only a small proportion of their overall business, and the spillover effect could destroy the sponsors' other operations as well.[313]

Sponsor support is not costly in the context of most sponsors' overall operations. MMFs generally constitute a small percentage of the sponsor's assets under management,[314] and the potential cost of furnishing support to the funds is a tiny portion of the sponsor's independent value. BlackRock, for example, manages approximately $300 billion in MMF products, out of a total of more than $4 trillion in

311. Shilling, supra note 296, at 3.

312. *See, e.g.*, Kacperczyk & Schnabl, *supra* note 52, at 3 ("[F]und sponsors with more non-money market fund business expect to incur large costs if their money market funds fail. Such costs . . . could be outflows from other mutual funds managed by the same sponsor or a loss of business in the sponsor's commercial banking, investment banking, or insurance operations."); McCabe, *supra* note 178, at 6 ("[B]ecause allowing a fund to break the buck would have been destructive to a sponsor's reputation and franchise, sponsors backstopped their funds voluntarily.").

313. Comment Letter from James J. Angel, Assoc. Professor of Fin., Georgetown Univ., to U.S. Sec. & Exch. Comm'n 7 (Feb. 6, 2013), *available at* http://www.sec.gov/comments/s7-02-10/s70210-410.pdf ("Sponsors have a strong commercial incentive to stand behind their funds. Breaking the buck means the immediate and catastrophic end of the sponsor's entire asset management business.").

314. For the Reserve Primary Fund, of course, the proportion was much higher, as it is for sponsors like Federated. *See* Sam Mamudi & Jonathan Burton, *Money Market Breaks the Buck*, *Freezes Redemptions*, MARKETWATCH (Sept. 17, 2008, 9:11 AM), www.marketwatch.com/story/money-market-fund-breaks-the-buck-freezes-redemptions ("The Reserve [was] solely a money market shop, it didn't have the resources to bail out Primary Fund in the way a diversified mutual-fund giant . . . would be able."). So, too, is the case for sponsors like Federated. FEDERATED INVESTORS, INC., 2013 ANNUAL REPORT 10 (2014), *available at* http://corp.federatedinvestors.com/FII/daf/pdf/annual_report/2013_Annual_Report.pdf.

assets under management.[315] BlackRock has an independent value of $51 billion, meaning that $51 billion of value from the sponsor's shareholders is available to meet the potential demands of its MMFs.[316] In essence, BlackRock's market capitalization provides a capital buffer of 17%. In addition, MMF sponsors receive a percentage of the total assets under management in the form of regular and highly liquid advisory fees.[317] These fees provide a ready source of liquidity upon which the sponsor can draw to meet its support obligations.[318] Indeed, even in an era in which MMF yields have plummeted, MMF sponsors continue to receive substantial fee income.[319]

In addition, sponsor support offers flexibility. As they have done in the past, sponsors could waive advisory fees, in whole or in part, to prevent the fund from experiencing a negative yield. Sponsors could commit up front to provide support through an explicit guarantee or letter of credit or could purchase private insurance to cover any potential liability. Alternatively, if a fund experiences financial weakness, a sponsor could provide liquidity by purchasing MMF assets at par, exchanging assets, or injecting capital into the MMF.

Under current law, sponsor support is always discretionary.[320] Discretionary sponsor support is widely characterized as a weakness

315. *The Monolith and the Markets*, ECONOMIST, Dec. 7, 2013, at 25, 25–26, *available at* http://www.economist.com/news/briefing/21591164-getting-15-trillion-assets-single-risk-management-system-huge-achievement.

316. *Id.*

317. *See* Tim McLaughlin, *Big US Money Funds' Fees Outpace Investor Returns*, REUTERS (Mar. 29, 2012, 3:36 PM), http://www.reuters.com/article/2012/03/29/funds-moneymarket-idUSL2E8ESW1820120329.

318. For example, the $116 billion Fidelity Cash Reserves Fund generated $200 million in income for its sponsor in each of the three years from 2010 to 2012. Thus the fund's annual income greatly exceeded the degree of fluctuation in value targeted by the SEC's rules as a cause for concern. *See id.*

319. *See id.* (observing that big MMF sponsors saw far less of a decline in fees than investors saw in returns).

320. Various legal rules prevent sponsors from guaranteeing fund value in advance, including limitations on affiliate transactions, requirements for reporting contingent liabilities, consolidation requirements and, for regulated entities, a concern about extending the federal safety net to a nonbank entity. *See SEC Staff Issues Clarification on Consolidation Issues Relating to Bank Support for Money Market Funds*, ERNST & YOUNG (Sept. 19, 2008), http://www.google.com/url?sa=t&rct=j&q=&esrc=s&frm=1&source=web&cd=7&cad=rja&uact=8&ved=0CFEQFjAG&url=http%3A%2F%2Fwww.ey.com%2Fpublication%2Fvwluassetsdld%2Fhottopic_bb1583_sec_19september2008%2F%24file%2Fhottopic_bb1583_sec_19september2008.pdf%3FOpenElement&ei=NIMsU4eRLqvr0QGm14G4BA&usg=AFQjCNEBIrxILQ6MT_8HfK2i4xNlEDPF0g&sig2=ETAvRU-fUZOA4luXCRWCtA. In September 2008, the SEC staff issued guidance to clarify that banks were not required to consolidate the fund on their balance sheet if they provided discretionary support in connection with the financial crisis. U.S. Sec. & Exch.

of MMFs, because of the fear that the sponsor may fail to provide support in time of crisis and allow the MMF to fail.[321] This Article's proposal would modify Rule 17a-9 to require sponsor support rather than making such support voluntary.[322]

Critically, in order to allow a sponsor to commit to these forms of support up front, the SEC would need to modify the rules on affiliate transactions, calculation of NAV, and consolidation, where necessary.[323] Because, under this proposal, sponsor support would be a contingent liability, the mandate would regularize the accounting treatment of measures taken by a sponsor to provide for such support in advance, such as through the creation of reserves.

Mandating sponsor support would address former Chairman Schapiro's concern about the unreliability of sponsor support in a time of crisis.[324] To address the related concern about transparency, this Article proposes several complementary disclosure requirements. MMFs would be required, on a real-time basis, to disclose the extent and form of support provided.[325] MMFs would also be required to disclose any conditional forms of support including insurance

Comm'n, *SEC Issues Clarification on Accounting Issues Relating to Bank Support for Money Market Mutual Funds*, SEC. & EXCH. COMM'N (Sept. 17, 2008), http://www.sec.gov/news/press/2008/2008-205.htm. Similarly, accounting rules limit the ability to segregate assets to cover potential losses in the form of a reserve because the sponsor has no obligation to cover those losses. Although accounting rules would allow reserves if the sponsor guaranteed its MMF losses in advance, such a guarantee would subject the sponsor to disclosure obligations and possible consolidation. *See* PWG REPORT, *supra* note 121, at 10. In addition, an explicit guarantee could arguably be treated as an asset of the fund, with the resulting requirement that it be reflected in the fund's NAV.

321. *See* Duygan-Bump et al., *supra* note 90, at 735 (attributing weakness of MMFs, in part to "discretionary sponsor support instead of formal capital buffers or insurance"); Cecilia Parlatore Siritto, *Fragility in Money Market Funds: Sponsor Support and Regulation* 1 (July 12, 2013), *available at* http://papers.ssrn.com/sol3/papers.cfm?abstract_id=2295145 (describing voluntary sponsor support as both instrumental to maintaining a stable NAV and, at the same time, a source of MMF "fragility"). The failure of the Reserve Fund followed this fact pattern. As one paper observes, "[I]t was the lack of sponsor support . . . that was more unusual than the underlying losses suffered." Brady, Anadu & Cooper, *supra* note 297, at 2.

322. 17 C.F.R. § 270.17a-9 (2014).

323. *See supra* note 320 (describing existing legal impediments to mandatory sponsor support).

324. *See* Mary Schapiro, Chair, Sec. & Exch. Comm'n, Remarks at SIFMA's 2011 Annual Meeting (Nov. 7, 2011), http://www.sec.gov/news/speech/2011/spch110711mls.htm (expressing concern that "support may be there, or it may not. And there certainly is no current legal requirement that sponsor support or any other back-up exist").

325. MMFs would be required to disclose all forms of support, including fee waivers. Unlike the current rule, the proposal would not require sponsors to disclose the reason for providing support, as the reasons—supporting the fund's NAV and supplying liquidity—are implicit in the regulatory mandate.

coverage, contingent purchases, and third-party guarantees. Importantly, these disclosures would not have the potential adverse consequences of the requirements included in the 2014 rule because, in a regulatory environment in which sponsor support is mandated, disclosure that the sponsor has provided such support would not be a confusing signal about the need for support or the sponsor's willingness to provide support in the future.

In addition to this disclosure, MMF sponsors would have to provide disclosures about their financial condition. For sponsors that regularly provide current financial information to the public, either through capital markets disclosures or publicly available filings with regulators, such information would be sufficient. Private sponsors that are not otherwise subject to mandated financial disclosure, like the Reserve Management Company or Fidelity, would be required to provide analogous periodic disclosures to allow investors to evaluate their capacity to meet the support requirement.

B. Advantages of Mandatory Sponsor Support over Current Law

Mandatory sponsor support is a better approach than the 2014 rule for three reasons. The first reason is that sponsor support has been remarkably successful in preventing MMFs from breaking the buck, thereby preventing investor losses and avoiding the contagion effect associated with a run.[326] As the SEC and others have documented, sponsors supported the NAVs of their MMFs for years.[327] Sponsor support has enabled hundreds of MMFs to weather the turmoil of the financial crisis of 2008, the European Debt crisis, uncertainty about the U.S. debt ceiling, the SIV issue, and more, without breaking the buck.

Notably, a commitment to sponsor support reduces run risk because it eliminates the pressure for investors to redeem. As a result, in most circumstances the guarantee alone will be sufficient to provide stability without requiring the sponsor to incur substantial cost. The effectiveness of a guarantee is illustrated by the federal government's temporary guarantee during the 2008 financial crisis. Although the government provided nominal insurance of MMF assets, it never paid out any money—sponsor support enabled all the

326. *See* Brady, Anadu & Cooper, *supra* note 297, at 1 (documenting the effectiveness of sponsor support in preventing MMFs from breaking the buck despite economic stress).

327. *See supra* notes 295–312 and accompanying text.

funds other than the Reserve Fund to weather the Lehman default without breaking the buck.[328]

The second benefit to mandatory sponsor support is that it requires the sponsor, which controls the MMF's investment decisions, to internalize the costs of those decisions. Unlike a government bailout, sponsor support means that the sponsor pays, not the taxpayer. As a result, required sponsor support eliminates the moral hazard problem and instead provides optimal incentives for sponsors to minimize portfolio risk.[329] One of the ongoing concerns about MMFs is the potential that sponsors will take excessive risk to increase yield and obtain a competitive advantage.[330] Although the SEC's 2010 MMF reforms reduce the degree of permissible risk-taking, so long as the sponsor does not bear the full costs of its risk-taking, it will have an incentive to take excessive risk. Moreover, this appetite for risk is likely to be concentrated in those MMF sponsors that are financially fragile or those that lack independent business reasons for maintaining a sound MMF. Both these concerns about the sponsor's incentives for risk-taking, however, which arguably affect the value of the sponsor's commitment, are highly transparent to MMF investors. Thus, to the extent that sponsor support reduces the independence of an MMF's portfolio from the financial stability of its sponsor, market forces should lead investors to prefer MMFs offered by those sponsors that most credibly can stand behind the MMF's share price.[331]

328. *See* Letter from Paul Scott Stevens to the Editor of Am. Banker (Oct. 18, 2012), *available at* http://www.americanbanker.com/bankthink/money-market-funds-US-guarantee-was-limited-and-temporary-1053607-1.html (explaining that the Temporary Guarantee Program did not pay out a single claim but generated $1.2 billion in fee revenue from participating MMFs).

329. Importantly, unlike capital buffers, sponsor guarantees would not provide a discontinuity with respect to sponsor incentives. With required capital buffers, a sponsor's incentive to take risk increases as potential losses approach the size of the buffer because the sponsor will not bear the cost of losses beyond the amount of the buffer. Thus capital buffers create a distortion analogous to that created by low capital requirements for banks.

330. For example, commentators described the Reserve Fund's risk taking as excessive, noting that in September 2008, the Reserve Fund's twelve-month yield was "the highest among more than 2,100 money funds tracked, according to Morningstar." Steve Stecklow & Diya Gullapalli, *A Money-Fund Manager's Fateful Shift*, WALL ST. J. (Dec. 8, 2008), http://online.wsj.com/news/articles/SB122869788400386907. This yield made the Fund an attractive investment—"the fund's assets tripled in two years to $62.6 billion." *Id*.

331. Indeed, Patrick McCabe finds that investors are capable of distinguishing among MMF sponsors; he shows that the MMFs associated with risky sponsors experienced a higher level of institutional redemptions during recent economic crises. *See* McCabe, *supra* note 178, at 34.

Third, sponsor support does not create the moral-hazard problem associated with external financial support such as a private liquidity facility or an industry-wide insurance or guarantee system because each sponsor is individually responsible for the stability of its own funds.[332] Sponsors that take excessive risk with their MMF portfolios cannot draw upon resources contributed by more conservative sponsors. Similarly, because MMFs would be looking to their individual sponsors for support rather than a common pool, the contagion effect of individual MMF fragility would be contained. Even if a particular sponsor experienced financial distress, that distress would have a limited effect on investors' expectations about the stability of other funds.

C. Possible Objections and Responses

The most likely objection to this Article's proposal might be, if mandatory sponsor support is such a good idea, why hasn't someone proposed it?[333] In light of the extensive debate over MMF reform, it would seem that regulators and commentators have already identified and debated all viable options. The answer to this question is that the viability of sponsor guarantees has been masked by the political dynamic in which MMF reform has been debated. Commentators have described MMFs as shadow banks, termed the 2008 redemptions a run akin to bank runs, and proposed reforms, such as capital buffers, designed to make MMFs more like banks.[334] As noted above, mandatory sponsor support is only possible because of the unique separation of management and investments in MMFs, a separation that does not exist in a traditional bank.

Politically, sponsor guarantees are also an unattractive option for both key interest groups—banks and mutual fund sponsors. From the

332. *See, e.g.*, Shah Gilani, *Money Market Funds Are in the Fight of Their Lives*, MONEY MORNING (Feb. 9, 2012), http://moneymorning.com/2012/02/09/money-market-funds-are-in-the-fight-of-their-lives/ ("From the moral hazard perspective, critics point to the Fed's backstopping money market funds as a license for them to take more risks as they divert deposits from the more regulated banking system.").

333. Twenty years ago, Howell Jackson proposed a conceptually similar alternative to increased regulation of financial holding companies. Howell E. Jackson, *The Expanding Obligations of Financial Holding Companies*, 107 HARV. L. REV. 507, 583 (1994). Jackson argued, analogously to the arguments raised in this Article, that "[p]articularly, in the depository institution field, where illiquid assets and severe informational asymmetries complicate traditional forms of risk-regulation by government agencies, holding company guarantees are a promising innovation in regulatory structure." *Id*. at 513. Much of Jackson's reasoning can be applied to the context of MMFs.

334. *See* FSOC Proposal, *supra* note 146, at 69,456 (recommending required capital buffers of either 1% or 3%).

perspective of banks, sponsor guarantees highlight the difference between banks and MMFs by tapping a source of financial stability that banks cannot replicate. To the extent that MMFs offer an attractive, competitive product, explicit sponsor guarantees would allow them to continue to offer that product without facing the regulatory burdens of banks.

Mutual fund companies, which sponsor roughly half of MMFs, would likely also find explicit sponsor guarantees unattractive for several reasons. First, although sponsors have historically provided support, the voluntary nature of this support provides sponsors with an exit option if that support should prove too costly, as it might, for example, in a situation such as the U.S. government defaulting on its debt. Second, many of the most powerful mutual funds have been successful in avoiding a substantial regulatory burden by persuading the SEC to exempt retail funds. Subjecting themselves to a support commitment would obviously be less attractive. Third, to the extent that they must face additional regulation, sponsors would likely prefer gates and fees, which allow them to transfer the costs of excessive risk-taking to their MMF investors rather than bear those costs themselves, as they would through a sponsor support requirement.

A second objection might be that explicit sponsor guarantees are too costly. As noted above, one advantage of this Article's proposal is that, because it offers sponsors a variety of mechanisms for meeting their obligations and does not mandate an explicit set-aside of capital, it will be less expensive to implement than an alternative such as a capital buffer.[335] Nonetheless, the contingent liability associated with a guarantee, a standby letter of credit, or the purchase of illiquid assets (even if those assets will trade at par on maturity) becomes more costly as the size of an MMF grows. As a result, sponsor support may require a sponsor to limit the size of its MMFs to reduce its liability exposure.

This Article does not view the prospect that sponsor support might impose a limit on MMF size as problematic; indeed, this might be viewed as an additional advantage of the proposal. If required sponsor support causes sponsors voluntarily to reduce MMF size, that action would reduce the systemic importance of any single MMF. Part of the contagion effect generated by the Reserve Fund's failure was due to its size—$62.6 billion in assets.[336] The resulting redemption

335. *See* 2013 Rule Proposal, *supra* note 9, at 36,907 (rejecting required capital buffers, in part, due to their cost).

336. *See* Stecklow & Gullapalli, *supra* note 330.

requests created a need for the Reserve Fund to seek billions of dollars' worth of liquidity and to attempt to sell a substantial quantity of securities into a weak credit market.[337] If it is problematic for banks and other financial institutions to get too big, regulation that indirectly places a practical limit on MMF size seems at worst benign.[338] Concededly, MMFs, like other mutual funds, do enjoy economies of size and scale, and funds would sacrifice those economies if they were limited in size.

In addition, although financially sound sponsors with other substantial business operations, such as large mutual fund companies, could likely fund any support obligation through operating capital or other assets, sponsor support may be particularly burdensome for smaller sponsors or those that lack other businesses. Thus, explicit guarantees might have the effect of precluding certain types of sponsors from offering MMFs, either because they lack the assets to guarantee fund value or because the market would be skeptical of their ability to meet the support obligation. In retrospect, investors might be skeptical that the Reserve Management Company, "a stand-alone fund company with almost no other funds under management,"[339] would provide support to its MMFs. In contrast, investors might be more confident in relying on support from a company like Fidelity, which, in 2006 "sponsored 252 non-money market mutual funds with $814 billion in assets under management."[340] Sponsors with other businesses face the most spillover risk if their MMF is fragile and, accordingly, are likely to take steps to prevent that by reducing the riskiness of their MMF assets.[341] Similarly, funds with substantial non-MMF assets are in a better position to provide support.

Again, to the extent this reform has the effect of reducing the ability of financially compromised sponsors to offer MMFs, this Article views that effect as an advantage, not a weakness. Notably, explicit sponsor support changes the focus of market discipline by properly focusing investors on sponsor financial stability in evaluating

337. *See supra* notes 75–80 and accompanying text (describing the failure of the Reserve Fund).

338. In particular, some administrative expenses are more or less fixed regardless of fund size. *See* INV. CO. INST., 2014 INVESTMENT COMPANY FACT BOOK ch. 5 (2014), *available at* http://www.icifactbook.org/fb_ch5.html (describing mutual fund fees and expenses and noting economies of scale and size).

339. *See* Kacperczyk & Schnabl, *supra* note 52, at 11.

340. *Id.*

341. *See id.* at 3 (finding that "funds sponsored by financial intermediaries with more money fund business took on more risk").

MMFs rather than on the MMF portfolio. As this Article argued earlier, the structure of MMFs makes direct investor monitoring of portfolio assets problematic. The portfolio's assets are extremely short term, meaning that the quality of the portfolio can change rapidly. Portfolio assets are, in many cases, thinly traded and difficult to price. Finally, the MMF's shadow prices tend to be stale and to incorporate future economic developments incompletely. In contrast, investors can readily monitor the financial condition of MMF sponsors and identify the business practices that provide economic incentives for sponsors to meet their support obligations. This more efficient investor monitoring is a distinctive advantage of this Article's proposal.

At the same time, this Article's proposal would not preclude smaller and less stable sponsors from offering MMFs. Sponsors could address investors' concerns about incentives and solvency through a variety of mechanisms including explicit guarantees, standby letters of credit, or purchasing insurance to cover their support obligations.[342] In particular, insurance offers yet another mechanism for monitoring MMF risk, as insurance providers have an economic incentive to understand an MMF sponsor's risk profile and tailor the cost and scope of coverage accordingly.[343] Importantly, insurance for an individual sponsor's MMF obligations would be quite different from industry-wide mandated insurance and would not create the same concerns about cost and moral hazard.[344] On the other hand, the sponsor support requirement could operate as a barrier to entry for smaller potential sponsors, reducing competition in the industry.

342. Some MMFs purchased insurance from the ICI Mutual Insurance Company from 1993 to 2003. *See* 2013 Rule Proposal, *supra* note 9, at 36,905 (describing cost and coverage of mutual fund portfolio insurance). The ICI has expressed concern that, in today's market, such insurance would either not be available or would be prohibitively expensive. *See* INV. CO. INST., REPORT OF THE MONEY MARKET WORKING GROUP 113 (2009), *available at* http://www.ici.org/pdf/ppr_09_mmwg.pdf. It should be noted that insurance is available and currently used to ensure the stability of a comparable product—stable value funds. *See* Robert Steyer, *Wrap Market Returns—But with Changes*, PENSIONS & INVESTMENTS (Dec. 13, 2010), http://www.pionline.com/article/20101213/PRINT/101219979/wrap-market-returns-8212-but-with-changes# (describing use of stable value funds, in which price is maintained through insurance wraps in retirement accounts).

343. *See Insurance in the US Market for Investment Companies and Related Entities*, ICI, http://www.ici.org/pubs/white_papers/03_eu_insurance_paper (last visited Apr. 7, 2015) ("The insurance obtained by investment companies tends to be closely matched to their risk profiles. The insurance company's interest in the process fosters greater accuracy of insurance coverage.").

344. *Cf.* 2013 Rule Proposal, *supra* note 9, at 36,911–12 (describing and rejecting proposal that MMFs be required to obtain some type of insurance).

Critics may also question whether sponsor support is sufficiently reliable. What happens, under this approach, if a sponsor defaults, as the Bents did?[345] While mandatory sponsor support cannot eliminate the possibility, such a default would be no different from the failure of any financial institution to meet its obligations. Unlike the current system, however, investors would not face unpredictability about whether a sponsor would provide support because such support would be required rather than voluntary. In addition, an MMF sponsor that failed to meet its obligations would face the prospect of an enforcement action, not just the uncertain penalty of market discipline. As a result, solvent and financially responsible sponsors are unlikely to default, and, as described above, investors should have adequate information to identify and avoid sponsors that cannot credibly commit to support their funds.

Finally, this Article's proposal can be criticized on the basis that it would undermine the efficient asset partitioning that is a key component of the MMF structure.[346] Sponsor support would make sponsor assets available to meet MMF shortfalls. Importantly, the interference with asset partitioning would be both limited and operate only in one direction. Sponsor assets would only be available to the extent necessary for the MMF to maintain a stable $1 NAV. Concededly, the added liability exposure of fund sponsors could be viewed as another justification for classifying investment managers as systemically important financial institutions or SIFIs.[347] Whether it is appropriate for the FSOC to designate asset managers as SIFIs[348] is a

345. It is unclear whether the Reserve Management Company was unable or unwilling to provide support for the Reserve Fund, but, as detailed in the SEC's enforcement action, the defendants issued a number of public statements indicating that they intended to provide sponsor support—support that never materialized. *See* Complaint at 2–3, SEC v. Reserve Management Co. Inc., 732 F. Supp. 2d 310 (S.D.N.Y. May 5, 2009) (No. 09 CV 4346). The SEC's fraud case was based on the claim that, at the time the Bents made these promises, they had no intention of providing such support. *Id.*

346. *See* Morley, *supra* note 30, at 1240–41 (discussing the consequences of such separation).

347. In September 2013, the Office of Financial Research released a report produced at the request of the FSOC to enable the FSOC to consider whether asset managers should be considered for enhanced regulation as SIFIs. OFFICE OF FIN. RESEARCH, ASSET MANAGEMENT AND FINANCIAL STABILITY 1 (2013), http://www.treasury.gov/initiatives/ofr/research/Pages/AssetManagementFinancialStability.aspx [hereinafter OFR REPORT]. The OFR concluded that asset managers can "introduce vulnerabilities that could pose, amplify, or transmit threats to financial stability." *Id.*

348. It is also conceivable that the FSOC could designate MMFs themselves as SIFIs. For a detailed analysis of why such a designation would not be appropriate, see Eric D. Roiter, *Should Money Market Funds Be Designated as "SIFIs"?*, 31 REV. BANKING & FIN. L. 749, 760 (2012) ("Treating money market funds as potential SIFIs posing systemic risk would thus distort the essential character of money market funds . . . .").

controversial topic and beyond the scope of this Article,[349] although it is worth noting that for the vast majority of asset managers, MMFs constitute a small percentage of their total assets under management.[350]

In addition, MMF assets would not be available to meet the needs of a financially distressed sponsor. This segregation of MMF assets from sponsor assets provides the key value of asset partitioning in the mutual fund structure.[351] The segregation is illustrated by the failure of Lehman. Notably, although Lehman's bankruptcy brought down the Reserve Fund, it did not bankrupt Lehman's own mutual funds. The assets of those funds were segregated by law and out of the reach of Lehman's creditors.[352]

CONCLUSION

Since 2008, MMFs have been targeted for broad-based regulatory reform. Six years later, the SEC has adopted a rule that may have draconian consequences for some types of MMFs while failing to address core concerns about MMF stability. The limitations of the rule can largely be attributed to the flawed process by which it was produced and, in particular, the politics of MMF reform. In particular, by analogizing MMF redemptions to bank runs and debating proposed reforms on the basis of whether they will reduce a run risk to zero, policymakers have set an unrealistic objective for MMF reform and imposed a risk-reduction requirement far beyond that applicable to the banking industry.

In addition, by painting MMFs as part of the shadow banking system, critics have overlooked the critical attribute that distinguishes MMFs from bank deposits—the structural separation of MMFs from their sponsors. This attribute provides the key to increased MMF

349. Both the report and the prospect that the FSOC could designate certain asset managers as SIFIs have generated considerable controversy. *See, e.g.*, Emily Stephenson & Sarah N. Lynch, *U.S. Senators Slam Study on Systemic Risks Posed by Asset Managers*, REUTERS (Jan. 24, 2014), http://www.reuters.com/article/2014/01/24/us-financial-regulation-asset-idUSBREA0N1LG20140124 (noting claims that the study was flawed and could damage the Treasury Department's reputation).

350. *See* OFR REPORT, *supra* note 347, at 20 (providing data for seven large asset managers). Federated Investors is an exception; its business consists primarily of institutional money market funds. *Id.*

351. *See id.* at 1 (contrasting the separation between asset management firms and the money they handle with banks and insurance companies that operate without that protection).

352. *See* Anne Kates Smith, *What Happens to Lehman's Customers?*, KIPLINGER (Sept. 15, 2008), http://www.kiplinger.com/article/investing/T023-C000-S001-what-happens-to-lehman-s-customers.html.

stability. The solution for reducing MMF fragility lies within MMFs themselves in the form of explicit sponsor support. Although existing law prevents sponsors from committing to maintain a $1 share price, this Article argues that such a commitment is desirable. It therefore proposes that MMF sponsors should be required to support the $1 share price of their fixed NAV MMFs.

Importantly, however, sponsor support should not be mandated through a rigid and costly vehicle such as capital buffers or mandatory insurance. MMF sponsors come in a variety of different shapes and sizes, and this variety offers a range of possible support mechanisms that take advantage of the sponsors' reputations, outside assets, and overall business plans. As a result, sponsor support should be permitted through the range of mechanisms that have been used successfully throughout the history of the MMF, including fee waivers, guarantees, capital infusions, and the purchase of MMF securities at par. By mandating sponsor support, regulators can formalize existing support practices that have proved valuable in maintaining MMF stability while increasing the transparency of sponsor support to the market.

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