A Floating NAV for Money Market Funds: Fix or Fantasy?

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Abstract

The announcement by the Reserve Primary Fund, in September 2008, that it was "breaking the buck," triggered a widespread withdrawal of assets from other money market funds and led the U.S. Government to adopt emergency measures to maintain the stability of the short term credit markets. In light of these events, the SEC heightened the regulatory requirements to which money market funds – a three trillion dollar industry -- are subject. Regulators and commentators continue to press for further regulatory change, however. The most controversial reform proposal would eliminate the ability of money market funds to purchase and sell shares at a stable $1/share price.

This article argues that the debate over a floating NAV is misguided. First, under current law, money market funds can maintain a $1 share price only under limited conditions. Second, a floating NAV would not achieve the goals claimed by its proponents. Third, and most important, a stable share price is critical to the existence of the money market funds industry. A required floating NAV would eliminate the fundamental attraction of money market funds for investors and, as a result, jeopardize the availability of short term capital.

The more important regulatory question, on which existing commentary has not focused, is what happens if an MMF breaks the buck. This article takes the position that this event should neither require the fund to be liquidated nor permit the board unfettered discretion in suspending redemptions. Instead the article proposes two procedural reforms designed to provide flexibility and predictability in these circumstances by allowing a money market fund to convert to a floating NAV and allowing investors to redeem most of their shares without awaiting completion of a fund's liquidation. In conjunction with a modest amendment requiring improved fund disclosure about the circumstances under which a fund may be unable to maintain a stable share price, these changes will increase liquidity, address the pressures that may lead to a "run," preserve the economic viability of money market funds, and allow them to respond to the preferences of investors.

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Introduction

In mid-September 2008, amid the wreckage of failed investment banks like Bear Stearns and Lehman Brothers, and the spectacle of megabanks like Bank of America and Citibank on the brink of collapse, one money market fund, the Reserve Primary Fund ("RPF"), suffered an investment loss. The fund never approached insolvency; it did not default on any outstanding debt nor pose any risk of doing so; and it did not breach any contractual obligations. Its investment loss was due to the purchase of Lehman Brothers commercial paper prior to Lehman's bankruptcy filing. The RPF's loss was a rather modest one: the fund ultimately lost less than 1% of its overall value.[1] Investors in the fund lost the liquidity of their investment for almost a year, but they eventually recovered 99.2 cents on the dollar.[2]

The Reserve Primary Fund, however, did more than merely suffer an investment loss. The loss caused the fund to "break the buck," that is, to lose the capacity, under existing regulations, to value its shares at a fixed price of $1 per share. Over the next few days, unnerved by this event and the possibility that the Lehman bankruptcy would have a similar effect on other money market funds, investors rushed to redeem their shares in massive amounts. These redemptions created a crisis for the money market fund industry. They prompted the U.S. Treasury to intervene with an *ad hoc*, temporary insurance program for money market funds and the Federal Reserve Board to set up temporary credit facilities to shore up a rapidly shriveling commercial paper market.

The trauma of 2008 has prompted a wave of regulatory reforms, including extensive changes by the Securities and Exchange Commission ("SEC") to the rules governing money market funds.[3] These changes, among other things, tighten the risk-limiting criteria for money market funds' investment portfolios and impose new liquidity requirements. There are calls for still further changes. By far the most important takes aim at the principal feature that distinguishes money market funds from other mutual funds– their use of a fixed or "stable" $1 per share price. Other mutual funds, in contrast, sell and redeem their shares at a floating price– one that varies from day to day to reflect changes in the net asset value of the funds' investment portfolio holdings.

The stable $1 share price is the reason why money market funds have gained widespread acceptance in the financial markets, relied on not only by consumers but also by corporate treasurers, financial firms, governmental bodies and other institutional users. They operate as an alternative to bank deposit accounts, serving as a medium of exchange, and offering investors the

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[1] See Letter from John D. Hawke, Jr., Arnold & Porter, to Elizabeth Murphy, SEC, dated Feb. 24, 2011, re File No. 4-619, at 3, avail. at www.sec.gov/comments/4-619/4619-82.pdf ("Hawke Letter") (stating that investors in Reserve Primary Fund ultimately recovered 99.2 cents on the dollar).
[2] Id.
[3] Money Market Fund Reform, Inv. Co. Act Rel. No. 29,132 (Feb. 23, 2010), http://www.sec.gov/rules/final/2010/ic-29132.pdf ("MMF Adopting Release").

practical equivalent of protection of principal and payment of interest. A labyrinth of electronic networks connects money market funds and banks to one another, so that the funds, like banks, play an integral role in the nation's payments and clearance system.

Nonetheless, money market funds differ fundamentally from banks. While a bank's obligation to pay its depositors in full is unconditional (as long as the bank is solvent), a money market fund's obligation to its shareholders is not. The stable $1 per share price is contingent on a fund's meeting stringent standards governing its investment portfolio. Critically, the fund must maintain a close proximity between the market value of the short-term debt investments it holds as assets and the book value of those assets. If the difference between market and book value is too large, the fund is compelled, as the Reserve Primary Fund was, to break the buck.

Why should a relatively minor loss by one money market fund out of more than 700 funds[4] holding around $3 trillion in assets[5] have led to a run on other money market funds? More importantly, given the remarkable stability of money market funds over four decades, why should this aberration now cause the SEC and others to cast into doubt the feature of money market funds essential to their success, the stable $1 per share price?[6]

This Article addresses this core question. In Part I, the Article considers the origins of money market funds, discusses how they compare (or contrast) with other mutual funds and banks, and reviews the history of how the SEC approved a stable $1 per share price. In Part II, the article revisits the "breaking of the buck" by the Reserve Primary Fund in 2008 and the resulting run on other money market funds. In Part III, the Article considers changes adopted in 2010 by the SEC to tighten its rules for money market funds, and in Part IV it discusses the state of play for money market funds in light of financial reform legislation adopted in 2010, the Dodd-Frank Wall Street Reform and Consumer Protection Act (the "Dodd-Frank Act"). The Article considers systemic risk in Part V and, in Part VI, critically evaluates the dominant policy reform that has been urged to address systemic risk – requiring money market funds to use a floating NAV. Part VII describes other proposals for reform and introduces our alternatives. In

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[4]According to the SEC's staff, there were 719 money market funds when the SEC adopted its amendments to Rule 2a-7 in February, 2010. Id. at 113.

[5] According to the SEC, money market funds held $3.3 trillion in assets in February, 2010. MMF Adopting Release at 2. According to the Investment Company Institute ("ICI"), which tracks money market fund holdings on a weekly basis, assets invested in money market funds peaked at over $3.9 trillion in January 2009. ICI, Money Market Mutual Fund Assets Historical Data, avail. at http://www.ici.org/info/mm_data_2011.xls. That number has subsequently declined to approximately $2.7 trillion. Id. The number of funds has also declined. Id. Because many money market funds consist of multiple share class, the total number of funds reported in some literature, including the ICI spreadsheets, is higher than the number reported by the SEC. See Inv. Co. Inst., 2011 Investment Company Fact Book, at 165, http://www.ici.org/pdf/2011_factbook.pdf (reporting the number of money market funds and fund classes from 1986 to 2010).

[6] Notably, only two money market funds have broken the buck since 1983. Other than the RPF, the only fund to break the buck was a small institutional fund in 1994, the Community Bankers U.S. Government Fund, which ultimately returned 96 cents on the dollar. Hawke Letter, supra note __, at 9.

particular, the Article argues that the need for further reform is limited and that reform efforts should focus primarily on improving the redemption process for troubled funds. Such reforms would reduce the investor pressure that can generate a run.

This Article argues that the importance of money market funds ("MMFs"), both for investors and the short term credit markets, strongly supports their continued existence. Their existence, in turn, depends on the use of stable NAVs–as long as the funds satisfy the stringent criteria set by the SEC. To be sure, MMFs, like many other financial entities, were swept up in the financial chaos in 2008, but they were not the culprits as were commercial and investment banks. It is understandable why banks, as competitors, would wish to hobble MMFs, which have proven their social utility and even their safety relative to traditional bank accounts. But the markets would be less efficient, less stable, and less competitive in the absence of MMFs, and investors would be less well served Further, there are lessons to be learned from three years ago to mitigate the extent, if not the probabilities, of runs. The SEC has applied a number of them by tightening and expanding its rules governing MMFs, focusing on enhancing liquidity.

More critically, the Article demonstrates that the debate over mandating a floating NAV is a red herring. The $1 share price for money market funds is not, and has never been, truly fixed because MMFs simply do not guarantee a dollar back for every dollar invested. Instead, they, like all mutual funds, are investment pools, and their investors own shares (that is, equity), not deposits. This means that MMFs' use of a stable NAV is conditional, dependent on their ability to maintain investment portfolios whose values match up with a $1 per share price, subject only to the rounding permitting by SEC rules.

The more problematic regulatory question–on which existing commentary has not focused – is what happens if an MMF fails to meet the required conditions and "breaks the buck." This article takes the position that breaking the buck should neither require the fund to be liquidated nor permit the board unreasonably to delay redemptions and deny investors access to their funds. Instead, a MMF fund board should have the choice of liquidating the fund or converting it to a floating NAV. In either event, a fund board should be limited in its power to suspend redemptions. When an MMF is placed into liquidation, the fund's board should promptly establish a reserve, and shareholders should then be allowed to redeem the majority of their investment, subject only to the reserve. If the fund converts to a floating NAV, the board should have no power to suspend redemptions absent a special exemption from the SEC. In contrast to the existing literature, this article's proposal focuses on the key priority for a troubled MMF -- restoring liquidity to the fund. It is liquidity that drives investment into MMFs and the potential loss of that liquidity, we argue, that puts MMFs at the risk of runs.

I. Money Market Funds: Origins and Comparisons

Money market funds are a subset of mutual funds that are subject to an additional set of regulatory requirements.[7] Mutual funds are simple in design and, for the most part, in operation. The fund aggregates investor cash into a pool that is used to purchase securities. Investors acquire ownership interests in the pool and share in the pool's profits, losses and expenses. A mutual fund does not guarantee that investors will make a profit, but it does guarantee them an "exit right," the right to sell their ownership interest back to the fund at any time and receive the current value of that interest.[8] The right to sell back, or "redeem," shares in a fund gives each investor liquidity and autonomy — separate, ultimate control over his investment in the fund — even as investors collectively gain economies of scale and diversification. The ability of mutual funds to achieve diversification by pooling assets provides an investment mechanism that many investors could not duplicate on their own.[9]

In contrast to operating companies, mutual funds ordinarily have few if any employees and instead rely on others, notably their investment advisers and affiliates, to make investment decisions and to carry out ancillary activities necessary to run their day-to-day business.[10] Investors have embraced mutual funds because they not only offer diversification and liquidity but do so at a cost lower than many investors would incur by investing on their own. The fund's board of directors or trustees oversees the fund's operations and has the obligation of making a range of judgments about the funds' investments, structures and policies.[11]

These principles apply to all mutual funds, regardless of the types of investments they hold. Mutual funds cater to a wide range of investor preferences. Money market funds fall at one end of the spectrum – offering investors the lowest combination of risk and return. In order to limit their risk, MMFs invest in very short term debt instruments issued by highly creditworthy borrowers, including corporations, financial institutions and governmental bodies. Because of this investment strategy, MMFs differ in an important way from most other mutual funds. As a general rule, MMFs invest with an intention to hold their investments in short-term debt to

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[7] Mutual funds are generally regulated by the Investment Company Act of 1940 (ICA), 15 U.S.C. 80a. In addition to the general requirements of the ICA and the SEC rules thereunder, money market funds are subject to SEC Rule 2a-7, 17 C.F.R. § 270.2a-7 (2008).

[8] The right to exit the fund at the current value of fund assets rather than market price is a key factor distinguishing mutual funds from equity interests in operating companies. See, e.g., Jill E. Fisch, Rethinking Securities Intermediary Regulation, 138 U. Penn. L. Rev. 1961, 2014-15 (2010) (explaining how exit right reduces the significance of traditional corporate governance powers such as voting rights).

[9] See ICI, Ownership of Mutual Funds, Shareholder Sentiment, and Use of the Internet, 2010, Research Fundamentals, Sept. 2010, avail. at http://www.ici.org/pdf/fm-v19n6.pdf (explaining that "51.6 million U.S. households, or 43.9 percent, own[ed] mutual funds in 2010.").

[10] See generally Fisch, supra note __, at 1968 (explaining external management structure of mutual funds).

[11] See, e.g., Jones v. Harris Assocs. L.P., 130 S. Ct. 1418 (2010) (discussing the board's obligation to review and approve investment advisory contract and fees).

maturity. In contrast, most other mutual funds buy and sell their investments into the market on a regular basis.

A fundamental component of mutual fund regulation requires mutual funds, including MMFs, to allow investors to redeem their shares at any time at the net asset value of the shares ("NAV").[12] The calculation of NAV requires the fund to assign a value to each of the fund's portfolio assets, aggregate these amounts, and then reduce the sum by any outstanding debts of the fund[13] to arrive at a current net asset value. This value is then divided by the number of shares outstanding to provide an NAV per share. The ICA specifies the valuation process: an asset held in a fund's investment portfolio must be given its market value if a quotation is readily available.[14] Where a market price is not readily available, the fund's board of directors, acting under a duty of good faith, must assign a "fair value" to the asset.[15] This is not a matter of choice for a fund board; it is a duty.[16]

For a fund investing in stocks or longer term bonds, the market quotations for those assets will vary from day to day, and it follows that the fund's NAV will fluctuate as well. Even for stocks and bonds that lack ready market quotations, the fair value assigned to them is likely to vary, if not from day to day, then at least from time to time. Because each investment in a mutual fund reflects a proportionate ownership interest in the fund, the redemption of shares is not based on a fixed value, but computed in accordance with the fund's NAV at the time of redemption. This amount may be more or less than what the shareholder originally paid for the shares.

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[12] 17 CFR 270.22c-1(b)(1).

[13] These debts include payments owed on portfolio trades entered but not yet settled, fund dividends once declared, and short-term borrowing from banks.

[14]The ICA and the SEC rules thereunder provide guidance regarding the valuation process, and the SEC has supplemented this guidance with a number of releases. For a detailed bibliography of this guidance see SEC, Valuation of Portfolio Securities and other Assets Held by Registered Investment Companies — Select Bibliography of the Division of Investment Management, http://www.sec.gov/divisions/investment/icvaluation.htm.

[15] ICA, § 2(a)(41)(B).

[16] The SEC has struggled with how much of this responsibility a fund's board of directors may delegate to the fund's adviser. It does not suffice for a fund board to conduct after-the-fact review of fair values given by a fund's adviser to assets that have no readily available quotations in the market. But the SEC has recognized the impracticality of convening a meeting of a fund board (or even a committee of the board) to make fair value determinations on a case by case basis with little notice within a trading day. The SEC has accordingly sought a middle ground, calling for fund boards to put in place fair value policies and procedures that have enough specificity so that the adviser is not carrying out its own judgment but implementing that of the board. See SEC, Div. of Inv. Mgt., Letter to the ICI Regarding Valuation Issues (Dec. 8, 1999) ("1999 Fair Valuation Letter") avail. at http://www.sec.gov/divisions/investment/guidance/tyle120899.htm ("If . . . a board has approved comprehensive procedures which provide methodologies for how fund management should fair value price portfolio securities, . . . a board would need to have comparatively little involvement in the valuation process in order to satisfy its good faith obligation.")

Funds are required to value their assets at least once each business day,[17] and this calculation ordinarily coincides with the end of the trading day, typically 4 p.m. Eastern time.[18] In this way, a fund can tie its valuation to the closing prices of securities quoted and traded in U.S. markets.[19] An investor seeking to redeem or buy fund shares on a given day must submit his order before the time the fund has designated for the valuation of its assets, say, 4 p.m.[20] If an order arrives after that time, it is carried over to the next business day (unless cancelled) and receives a price tied to the value of the fund as of 4 p.m. that next day.[21]

The valuation process is inherently imprecise, particularly with respect to determining the "fair value" of securities that lack readily available market quotations. These securities ordinarily are not completely illiquid, but the level of trading activity may be so sporadic that quotations, based on last sale prices, are likely to be stale and not reliable indicators of the price of the *next* trade. Under these circumstances, the security must be given a "fair value," a reasonable estimate of the price at which it could be sold in a current trade. The fund's board is responsible for making this determination of fair value,[22] and the SEC has provided extensive guidance on the issue.[23] The SEC has long acknowledged that there is no single "correct" fair value. The same security held in the portfolios of different funds can be given different fair value prices at any one time, all of which can be reasonable estimates meeting the statutory standard.[24]

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[17] SEC Rule 22c-1, 17 C.F.R. 22c-1.

[18] This is not to be confused with carrying out a calculation at 4 p.m. or thereafter based upon the value of a fund's assets existing as of some time prior to 4 p.m.

[19] Of course, this does not foreclose imprecision in valuing securities traded primarily in foreign markets. This, in part, contributed to the market timing trading abuses uncovered in 2003. See Disclosure Regarding Market Timing and Selective Disclosure of Portfolio Holdings, ICA Rel. No. 26287 (Dec. 11, 2003).

[20] The "forward pricing" rule was adopted to curtail trading practices by fund insiders and others that led to dilution of the shares held by public investors in a fund.

[21] The "late-trading" scandals of 2003 involved mutual funds allowing investors to enter trading orders after the 4 pm close in violation of the forward pricing rule. See, e.g., Complaint, State of New York v. Canary Capital Partners, LLC (N.Y. Sup. Ct. Sept. 3, 2003), at 3, avail. at news.findlaw.com/hdocs/docs/nys/nyscanary90303cmp.pdf (explaining Canary's placement of trading orders after 4 pm close and illegally receiving that day's closing price).

[22] The board can delegate this responsibility to a fund's adviser or other party only when it has laid out specific written procedures designed to limit discretion and produce good faith determinations. The SEC has recognized that fund boards, "typically are only indirectly involved in the day-to-day pricing of a fund's portfolio securities," and that fair value methodologies "typically are recommended and applied by [the fund adviser's] management." 1999 Fair Valuation Letter, supra note __, at 4.

[23] See ASR 113 (Oct. 21, 1969); ASR No. 118 (Dec. 23, 1970); 1999 Fair Valuation Letter, supra; SEC, Div. of Inv. Mgt., Letter to the ICI Regarding Valuation Issues (Apr. 30, 2001) avail. at http://www.sec.gov/divisions/investment/guidance/tyle043001.htm;. The SEC has also issued guidance on fair valuation by corporate issuers and their auditors. See SEC, Office of the Chief Accountant and FASB Staff, Clarifications on Fair Value Accounting, SEC Press Release No. 2008-234 (Sept. 30, 2008) available at http://www.sec.gov/news/press/2008/2008-234.htm.

[24] Funds supervised by the same board of directors, however, should use the same fair value price. Id.

As a result of this imprecision, mutual fund pricing relies on estimates and rounding in order to compute NAVs.[25] This imprecision is reflected in the statute itself. Under the ICA, a fund must pay a redeeming shareholder "*approximately* his proportionate share of the issuer's current net assets or the cash equivalent thereof."[26] Stock and bond mutual funds are allowed to round to the nearest one cent per share when calculating their NAVs.[27] These principles apply comparably to MMFs and, for the first few years of their existence, MMFs relied on penny rounding, using an NAV of $1 per share.

The estimates and imprecision associated with mutual fund valuation are even more important for MMFs because of the nature of the securities in which they invest. Very short-term money market instruments like commercial paper or bank CDs ordinarily lack readily available market prices.[28] Other instruments, especially repurchase agreements, are essentially illiquid.[29] Because MMFs typically hold their investments in short term debt instruments to

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[25] Apart from rounding, the SEC tolerates imprecision in other ways, including allowing leeway for a fund's intra-day trading activity. Suppose that a stock fund, owning shares of XYZ Corp., sells those shares at $21 per share at 3:30 p.m. on a trading day, and that trading in XYZ Corp. shares closes at $20.80 by 4 p.m. The fund is allowed to calculate its NAV for that day without taking into account trading profits captured in its sale of XYZ Corp. shares. Instead, the fund can calculate its NAV using the 4 p.m. closing price of $20.80 per share as if it still held the shares. Under SEC rules, the fund need not account for its trading profit until it calculates its NAV on the close of the next business day. ICA Rule 2a-4(a)(2), 17 C.F.R. 2a-4(2)

[26] ICA, § 2(a)(32) (emphasis added). Note that a fund need not pay its redeeming shareholders in cash but may redeem "in kind," that is, with securities or other assets held in the fund's portfolio equal (or approximately equal) to the value of redeemed shares.

[27] Rule 2a-4, 17 C.F.R. 240.2a-4. This approach leads to greater imprecision as a fund's NAV becomes lower. For example, consider two stock funds: one with an NAV of $9.996 per share (rounded to $10), the other an NAV of $99.996 per share (rounded to $100.00). Rounding to the nearest penny reflects an adjustment of .04% for the first fund, .004% for the second. Notwithstanding that rounding is intrinsic to the calculation of the NAV of all mutual funds, criticisms of MMFs arguably suggest (mistakenly) that rounding takes place only when the NAVs of MMFs are calculated. *See* Report of the President's Working Group on Financial Markets, Money Market Fund Reform Options (Oct. 2010), at 2 & 3, avail. at http://www.treasury.gov/press-center/press-releases/Documents/10.21%20PWG%20Report%20Final.pdf ("PWG Report") (referring to the "stable, rounded $1 NAV" of MMFs.).

[28] The SEC has described "money market" instruments as including "Treasury bills, securities issued or guaranteed by the U.S. Government, repurchase agreements for government securities, certificates of deposits, letters of credit, commercial paper, and banker's acceptances." The SEC acknowledged that some of these instruments have "a less active secondary market" and that others are "non-marketable." Proposal Concerning Valuation of Short-Term Debt Instruments Owned by Registered Investment Companies Including Money Market Funds, ICA Rel. No. 8757 (April 15, 1975) ("1975 Release").

[29] Repurchase agreements or repos are essentially short-term secured loans. The borrower "sells" securities with an agreement to buy them back at a higher price, either the next day (an "overnight repo") or within an prescribed number of days (a "term repo") at a prescribed higher price. The difference between the sale and repurchase prices is the economic equivalent of interest on a loan. The securities themselves serve as collateral for the loan. See Gary Gorton & Andrew Metrick, Securitized Banking and the Run on Repo, __ J. Fin. Econ. __ (forthcoming 2011), ssrn.com/abstract=1440752 (describing repurchase agreements).

maturity, their boards of directors early on took the view the standard valuation methodology for mutual funds was incongruous in the MMF context. Instead, boards assigned a fair value that was tied to the investments' purchase prices – historical cost pricing.

Historical cost pricing is straightforward when a debt instrument such as a bond is sold at par (face value) with a coupon, that is, a separate, explicit interest rate and interest payment periods. But many short term debt instruments are issued at a discount from par, carry an implicit rather than explicit interest rate, and have only one payment date, when their face value is paid. The investor receives a bundled payment that represents, in economic terms, not only return of principal but interest as well. As a fair way to value these assets, MMFs began to utilize the amortized cost method. Under this method, the asset's fair value changes in a straight line from purchase to maturity to reflect the implicit interest generated by the asset during that time period.[30]

MMF boards believed that amortized cost accounting maintained parity among investors purchasing and redeeming fund shares over time because this method duly reflected the interest (whether explicit or implicit) continually being earned by the fund in investments held to maturity.[31] Indeed, based on this logic, other mutual funds also used amortized cost accounting to determine the fair value of money market instruments held in their portfolios. For very short term debt investments held to maturity, boards took the view that changes in interest rates and other factors that might affect their re-sale value were essentially irrelevant. Instead, value turned on the intrinsic worth of the investment, so long as the issuer remained creditworthy.

The SEC stepped in, however, in 1975, questioning whether use of amortized cost valuation was consistent with the board's obligation to determine fair value in good faith.[32] Amortized cost valuation, the SEC said, "may result in periods during which the value of a fund's portfolio, as determined by amortized cost, is significantly higher or lower than the price the fund would receive if it liquidated the portfolio at prevailing market prices."[33] The SEC criticized amortized

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[30] Take, for example, an MMF that pays $98.04 to a corporation to purchase a commercial paper note with a face value of $100 maturing in 90 days. Upon maturity, the fund gets paid back its principal ($98.04) plus implicit interest of $1.96, representing a rate of 2%. Fund boards took the view that, in this example, the fair value of the note would change in straight line fashion over the 90 day period, each day increasing in value by 2.177 cents (1/90th of $1.96).

[31] The same principles apply when an MMF buys a money market instrument at a premium rather than a discount. This happens only when the instrument makes explicit interest payments separate from repayment of principal upon maturity. A fund, for example, might buy a one year note with interest payment dates at 6 months and one year. The fund would be willing to pay a purchase price higher than the note's face value if, say, interest on the note is 3% and prevailing one-year interest rates for creditworthy corporate borrowers is, for example, 2%. In this case, the fund might pay $103.65 for a $100 note. The fair value assigned to the note will be incrementally lowered over the one-year period by one cent each day, gradually bringing the value of the note down from $103.65 to $100.

[32] 1975 Release, supra note __.

[33] Id.

cost as "a mechanical or automatic formula" that reflected "no judgmental input on the part of directors."[34]

The agency asserted that a preferable approach would be to assign a "mark-to-market" value to each asset, that is, a value that approximates the price at which the asset could be sold, notwithstanding the absence of an active secondary market. The SEC insisted that this approach was preferable because it would "standardize the method of valuation" and thereby give investors greater ability to compare yields of different MMFs when making an investment decision.[35] The SEC's premise was (and remains) dubious. It is true that marking to market is one valuation methodology, but it is one that can and inevitably will yield different results as different boards in good faith make varying estimates.[36]

The SEC's position in 1975 was preliminary and open for public comment, but the SEC finalized it in 1977. The Commission formally adopted an interpretation of Rule 2a-4 stating that it was "inappropriate . . . for 'money market' funds and certain other open-end investment companies to determine the fair value of debt portfolio securities on an amortized cost basis, except in the case of securities with remaining maturities of 60 days or less."[37] In its interpretive release, the SEC stated that amortized cost accounting not only was less preferable to marking to market but inconsistent with the "good faith" duty imposed on MMF boards by the rule.[38] Amortized cost, the SEC stated, could overvalue or undervalue assets in a fund's portfolio and thus lead dilute shareholders when others "pay or receive more or less than the actual value of their proportionate shares of the funds' current net assets" when buying or redeeming fund shares.[39]

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[34]Id. Another view that one might have taken, however, is that fund boards using amortized cost accounting had chosen a rigorous, objective valuation methodology that could be applied consistently over time, so long as a fund had the intention and ability to hold to maturity short-term debt instruments of creditworthy issuers.

[35] Id. At the time, according to the SEC, there were 36 money market funds, and money market fund assets, as of year-end 1974 were $2.434 billion in total, accounting for barely 7% of all mutual fund assets.

[36] Indeed, the SEC endorsed its prior guidance that "no single standard for determining fair value in good faith can be laid down, since fair value depends upon the circumstances of each individual case." Id, citing Accounting for Investment Securities by Registered Investment Companies, ICA Rel. No. 6295 (Dec. 23, 1970) (internal quotation marks omitted). In its 1970 release, the SEC explained that a board can take various factors into account in determining fair value, including "yield to maturity with respect to debt issues . . . an evaluation of the forces which influence the market in which these securities are purchased and sold. . . [and the] price and extent of public trading in similar securities of the issuer or comparable companies, and other relevant matters."

[37]Valuation of Debt Instruments by Money Market Funds and Certain Other Open-End Investment Companies, Investment Company Act Release No. 9786 (May 31, 1977), http://www.sec.gov/rules/interp/1977/ic-9786.pdf.

[38] Id.

[39] The SEC explained that the exercise of marking to market should includes take into account "current interest rates and other factors," and that fund boards in doing so "may, of course, utilize whatever

The SEC in 1977 retained an exemption allowing funds to continue to use amortized cost accounting for debt securities with a remaining maturity of 60 days or less.[40] Fluctuation in prevailing interest rates, of course, tends to have a greater impact on the price at which longer term debt instruments can be sold, and every additional day before maturity can have a marginal impact on a sale price, just as every additional day has an incremental effect in accreting interest under amortized cost accounting. But it is difficult to see how the difference of as a little as a single day can determine whether or not a board has acted in good faith when assigning fair values to a fund's short term debt holdings.[41]

For MMFs in particular, the SEC's interpretation proved highly problematic and led to a deluge of requests for exemptions. MMFs sought to employ either amortized cost valuation or penny rounding "in order to facilitate their ability to provide: (1) a steady flow of investment income at an interest rate comparable to those available by direct investment in money market instruments and (2) a stable share price."[42]The SEC, notwithstanding its broad rejection of amortized cost accounting in its recent interpretive release, routinely granted these exemptions, finding that these procedures, if properly utilized were "appropriate in the public interest and consistent with the protection of investors and the policy and provisions of the Act"[43]

Finally, in 1982, the SEC proposed a new rule tailored for MMFs, Rule 2a-7.[44] The SEC adopted the proposed rule, with some modifications, in 1983.[45] In doing so, the SEC formally abandoned its position that amortized cost accounting failed to provide a consistent, accurate valuation of short-term debt instruments. Indeed, the SEC took the opposite view: amortized cost accounting *would* accurately reflect the value of an MMF's assets, so long as the fund met

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method it determines in good faith to be most appropriate" This could (but need not) "be based in part, for example, upon quotations by dealers or issuers for securities of similar type, quality and maturity." Ibid.

[40] The SEC also stated that marking-to-market for debt instruments of 60 days or less would be required of MMFs and other funds whose holdings of a "significant amount" of these assets would have a "material impact" on the fund's NAV if amortized cost valuation were used. Funds that would not experience this impact could use amortized cost for all short term debt. A material impact, according to the SEC, would be a change of at least one cent on a fund with an NAV per share of $10. In other words, materiality came down to as little as one-tenth of 1%.

[41] The SEC could, of course, have chosen to adopt a new rule under the ICA to mandate one accounting method for assets with maturities exceeding 60 days and allowing either amortized cost or mark-to-market valuation for assets with shorter remaining maturities. A 60 day bright line would have been "arbitrary," but any other bright line would have been as well. The SEC did not, however, purport to adopt a new rule in 1977 but instead claimed to interpret an existing rule, Rule 2a-4, without changing its wording.

[42] Valuation of Debt Instruments and Computation of Current Price Per Share by Certain Open-End Investment Companies, ICA Rel. No. 12206, 47 FR 5428 (Feb. 1, 1982) ("1982 Proposing Release").

[43] Id.

[44] Id.

[45] Valuation of Debt Instruments and Computation of Current Price Per Share by Certain Open-End Investment Companies (Money Market Funds), Investment Company Act Release No. 13380 (July 11, 1983) (adopting rule 2a-7), avail. at http://www.sec.gov/rules/final/1983/ic-13380.pdf ("1983 Adopting Release").

certain risk-reducing conditions.[46] This would be the case "regardless of whether market quotations are readily available" for an MMF's portfolio holdings[47]

An essential feature of Rule 2a-7 underscored that MMF shareholders would have only a conditional right to redeem their shares at a stable NAV price. The rule provided that a MMF could use amortized cost accounting (and thereby maintain a stable $1 NAV per share) "only so long as the [fund] board of directors believes that it fairly reflects the market-based net asset value per share" of the fund.[48]

This core condition has remained in every subsequent version of Rule 2a-7 and is extant today.[49] If the board determined that the fair value of an asset was not reflected through amortized cost accounting, the board was required to adjust the asset's value and, calculate NAV accordingly. Toward this end, the rule required an MMF's board to calculate a "shadow price" for the fund's investment portfolio, using a variety of sources, to estimate the total amount which the fund would likely receive if it were promptly to sell all of its holdings into the market [50] A fund's ability to maintain its stable NAV was jeopardized once the "shadow price" deviated from $1 per share by more than ½ of 1%. The rule accordingly required MMFs to disclose to prospective investors that there was no guarantee that the fund would be able to maintain a stable NAV.[51] All of the foregoing remain as part of Rule 2a-7 today, even as the SEC has added other requirements to strengthen the stability and safety of money market funds.

Some commentators have come to see amortized cost accounting as antithetical to fair value principles, a distortion of the "true" value of an MMF's assets.[52] The case is strong, however, that under ordinary circumstances, when nearly all short-term assets are held to maturity, this accounting method falls well within the bounds of the "approximate" valuation demanded by the statute, achieving arguably comparable precision to valuation gained by estimating mark-to-market values.

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[46] The SEC expressed this view in backhanded fashion, cautioning fund boards that they would be required to abandon a fund's stable NAV and use of amortized cost accounting if this "ceases to reflect fairly the market-based net asset value per share of the fund." Id.
[47] Id.
[48] See Rule 2a-7(a), 17 C.F. R. 270.2a-7(a).
[49] Rule 2a-7(c)(1), 17 C.F.R. 270.2a-7(c)(1).
[50] These include "estimates of market value which reflect current market conditions" rather than actual quotations and "values derived from yield data relating to classes of money market instruments obtained from reputable sources." Yield data must be based on a "representative sample of each class of instrument held in the portfolio." Id.
[51] As part of our recommendations in Part VII(B) we recommend changes to strengthen this disclosure and heighten awareness, especially among retail investors, that an MMF might revert to a floating NAV.
[52] See, e.g., William A. Birdthistle, Breaking Bucks in Money Market Funds, 2010 Wis. L. Rev. 1155 (2010).

Money market funds are popular with investors precisely because they offer a stable $1 per share price.[53] Retail investors typically use MMFs as an alternative to traditional bank accounts.[54] Regulations authorize investments of current assets by institutional investors, such as insurance companies, municipalities and school districts into MMFs because of the stable NAV. Board policies of many corporations allow investments in MMFs on this basis as well.[55] The $1 share price enables investors to move short-term cash in and out of MMFs without realizing capital gains or losses, thereby simplifying their tax accounting and recordkeeping. Many investors are willing to forego the potentially higher returns available under an alternative, such as ultra-short bond funds, in exchange for the convenience of using MMFs as a cash management vehicle.[56] Governmental entities use MMFs for much the same reasons.[57]

At the end of 2010, ultra-short bond funds held a total of $36 billion in assets.[58] In contrast, as of August 17, 2011, MMFs held a total of $2.631 trillion ($1.678 trillion in institutional funds and $951 billion in retail funds).[59] In a January 2009 survey, over half of the institutional cash managers surveyed responded that they would substantially reduce their use of MMFs if the funds were unable to use a stable NAV.[60] As for retail investors, recent surveys suggest that a majority, perhaps up to two-thirds, have an unfavorable view of forcing MMFs to use a floating NAV.[61]

The stable $1 per share price of MMFs has led many commentators to equate them to bank deposits and, in fact, many MMFs offer investors similar services such as check-writing and ATM access. Claims held by bank depositors and money market fund shareholders, however, are fundamentally different. Bank deposits are fixed debt claims against a bank's total unsecured

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[53] See. ICI Testimony, supra note __. See also, Report of the Money Market Working Group, Investment Company Institute (March 17, 2009 ("MMWG Report") at __ available at http://www.ici.org/pdf/ppr_09_mmwg.pdf

[54] See, e.g. Fisch, supra note __ at 1975 (explaining the attraction of MMFs for investors).

[55] MMWG Report, supra note, __, at 27-28.

[56] As of July, 2011, ultra-short bond funds had yields 150 basis points higher than MMFs. See Testimony of Paul Schott Stevens, President & CEO, Investment Company Institute, Hearings of the House Financial Services Subcomm. on Capital Markets and Government Sponsored Enterprises (June 24, 2011) at 33-37, avail. at http://financialservices.house.gov/UploadedFiles/062411stevens.pdf ("ICI Testimony")

[56] Stephen Miller, Co-Inventor of Money-Market Account Helped Serve Small Investors' Interest, Wall St. J., Aug. 16, 2008, http://online.wsj.com/article/SB121884007790345601.html?mod=googlenews_wsj.

[57] ICI Testimony, supra note __, at 35 (citing comment letters to the SEC from the General Treasurer of Rhode Island, Pennsylvania School District Liquid Asset Fund, National Ass'n of State Treasurers & Government Finance Officers Ass'n).

[58] See Jonathan Burton, "A Place for Ultrashort?", WSJ (March 8, 2011), avail. http://online.wsj.com/article/SB10001424052748703775704576162310225799344.html

[59] ICI, Money Market Mutual Fund Assets, avail. at http://www.ici.org/research/stats/mmf/mm_08_18_11; ICI, Money Market Mutual Fund Assets , http://www.ici.org/research/stats/money market fund/mm_07_07_11.

[60] ICI Testimony, supra note __, at 36.

[61] Id. at 36-37.

assets.[62] Depositors are contractual counterparties and creditors of banks, having enforceable rights to the timely payment of interest and principal in full. [63]

In contrast, MMF shareholders, like other mutual fund investors, have fractional ownership interests in a pool of capital. The interests of MMF investors are equity claims conveying a right to receive dividends and other distributions if, and only if, the funds themselves earn returns on their investments. Fund shareholders thus are much like traditional shareholders, entitled only to their pro rata share of the MMF's pool of assets. Accordingly, because they have made no loan, MMF shareholders, unlike bank depositors, have no right to return of their principal; there is no "principal" to be returned.[64]While it is true that a shareholder's right of redemption represents a type of contingent liability for an MMF, it is a contingent claim only on the *net assets*, not total assets, of an MMF.[65] Accordingly, no matter how high redemptions might mount, a mutual fund will not become insolvent in the sense of having total liabilities exceeding total assets. MMFs, like all other mutual funds, (and unlike banks) are immune from "failing."

II. Events of 2008: The Reserve Primary Fund "Breaks the Buck" and the Run on Money Market Funds

The Reserve Fund, the predecessor to the RPF, opened to investors in 1972.[66] Its founders, Bruce Bent, Sr. and Henry B.R. Brown, invented the money market fund as a mechanism to enable corporate investors to earn a return on temporary cash balances.[67]The

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[62] Bank deposits are essentially the same as debt claims owed by ordinary corporations except for federal deposit insurance and priority given to bank depositors over other unsecured creditors of a bank. Federal Deposit Insurance Act, 12 U.S.C. § 1821(d)(11)(A). The National Bank Act does not authorize national banks to collateralize private deposits. 12 U.S.C. § 24 (7th); Texas & Pacific Railway Co. v. Pottorff, 291 U.S. 245 (1934).

[63] Certificates of deposits and other term deposits may, of course, contain penalties for termination by the customer prior to maturity dates.

[64] Moreover, the law recognizes that bank depositors, as creditors, are owed no fiduciary duty but that fund shareholders, as equity holders, are. Compare Glazer v. First Am. Nat'l Bank, 930 S.W.2d 546, 550 (Tenn.1990) (under Tennessee law, a bank has no fiduciary duties arising from a debtor/creditor relationship); with Jones v. Harris Associates, 130 S. Ct. 1418 (2010) (describing fiduciary duties owed to mutual fund shareholders).

[65]Ordinarily, redemptions from an MMF over one or a few days are only a small liability because the shares redeemed are a small percentage of a fund's outstanding shares. The relevant figure actually is net redemptions, as typically new cash from existing or new shareholders comes into MMFs even as redemptions take cash out. For example, the Fidelity Cash Reserve Funds, as of November 30, 2010, had payments due on pending redemptions accounting for less than .8% of total assets. See Fidelity Cash Reserves Fund Report to Shareholders, Statement of Assets and Liabilities, at 23 (Nov. 30, 2010). The right of redemption held by shareholders in MMFs has no counterpart in the context of ordinary corporations, where shareholders wishing to sell must find buyers in the secondary market for their shares.

[66] Miller, supra note __.

[67]Robert Hershey, Overnight Mutual Funds for Surplus Assets, N.Y. Times, Jan. 7, 1973. At the time, corporations were not permitted to have bank savings accounts and banks could not pay interest on demand deposit accounts. Id.

money market fund also offered retail investors a way to receive a market rate of interest previously available only to corporate lenders or wealthy individuals[68] and to avoid the artificially low interest rates on bank savings deposits that had been imposed on banks by Regulation Q.[69] Initially, investors were wary of the money market fund concept, but gradually embraced the RPF and other MMFs, helped by favorable coverage in the financial press.[70]

The RPF developed a reputation for its conservative investment philosophy and grew rapidly.[71]Bent and Brown were careful to control the operating costs of the RPF, but the fund over the years was overtaken by a number of other MMFs sponsored by large asset management firms. In response, RPF, which had largely invested in bank CDs and overnight or short-term repurchase agreements, began in 2006 to purchase commercial paper in substantial amounts. This change in strategy greatly enhanced the fund's yield. As of September, 2008, the RPF yield was 4.04%, the highest among funds tracked by Morningstar.[72] Assets invested in the fund increased to more than $62 billion.[73]

As of September 2008, the RPF held $785 million in short-term debt of Lehman Brothers, accounting for about 1.2% of the fund's total assets.[74] Lehman, of course, became the face of the 2008 financial crisis upon its collapse in mid-September, filing a Chapter 11 bankruptcy petition on the evening of September 14, 2008 when it was unable to roll over its commercial paper payments and other short-term debt.[75]

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[68] See Steve Stecklow & Diya Gullapalli, A Money-Fund Manager's Fateful Shift, Wall St. J., Dec. 8, 2008, http://online.wsj.com/article/SB122869788400386907.html?mod=todays_us_page_one (highlighting difference in interest rates between Treasury bills and bank deposit accounts in 1970); Kevin McCoy, Reserve fund's woes undercut mantra of safety, liquidity, USA Today, Nov. 14, 2008, http://www.usatoday.com/money/perfi/funds/2008-11-10-reserve-primary-money-market-fund_N.htm (observing that, in 1970 when the Reserve Fund opened, "certificates of deposit with interest rates higher than bank accounts were available only to the wealthy").

[69] See Joseph Nocera, A Piece of the Action: How the Middle Class Joined the Money Class, 77 (1994) (describing Regulation Q restrictions)

[70] Hershey, supra note __.

[71]Miller, supra note _.

[72] Karen Dolan, A Large Money Market Fund Breaks the Buck, Morningstar.com, Sept. 17, 2008, avail. at http://news.morningstar.com/articlenet/article.aspx?id=253485.

[73] Miller, supra note _.

[74] Complaint, SEC v. Reserve Management Co., 09 CV 4346 (S.D.N.Y. May 5, 2009) ("SEC Complaint"), at 2.

[75]See Lehman Brothers Files For Bankruptcy, Scrambles to Sell Key Business, CNBC.com, Sept. 15, 2008, http://www.cnbc.com/id/26708143/Lehman_Brothers_Files_For_Bankruptcy_Scrambles_to_Sell_Key_Business (reporting Lehman bankruptcy filing). Lehman's bankruptcy filing was preceded by attempts to save the company through a government bailout or merger with another financial institution; such attempts ultimately proved unsuccessful. Many industry insiders believed that Lehman would be able to reach a deal, but the government's refusal to provide financial backing thwarted negotiations, including last minute negotiations with Barclays. See Deborah Solomon, et al., Ultimatum by Paulson Sparked Frantic End, Wall St. J., Sept. 15, 2008, http://online.wsj.com/article/SB122143670579134187.html

Lehman's bankruptcy immediately put enormous pressure on the RPF. Lehman paper was a small part of the fund's portfolio, but it was large enough to threaten the fund's ability to maintain its stable $1 NAV.[76] This fueled uncertainty among the fund's shareholders, heightened by the seeming freefall of the nation's entire financial markets.[77] Lehman's collapse put particular pressure on RPF because the RPF lacked an affiliate with sufficient resources to support the value of its share price.[78]

RPF's board met on the morning of September 15, 2008 and gave a fair value to its Lehman paper of 80 cents on the dollar, a valuation that would have enabled RPF to maintain its $1 share price.[79] But by mid-morning, RPF investors were rushing to the exits, deluging the fund with redemptions of over $10 billion.[80] These redemption requests more than doubled to nearly $25 billion by the end of the day, leaving the fund unable to generate enough liquidity to meet these requests. It was not until September 16, however, that the RPF announced that it was valuing the Lehman debt at zero effective at 4:00 p.m. and that the fund was, as a result, breaking the buck.[81] The continuing "run" on the fund led it to suspend redemptions on September 17th. A few days later, the fund obtained an emergency order from the SEC allowing the suspensions.[82]

The RPF board ultimately adopted a plan of liquidation for the fund on December 3, 2008, under which partial distributions were distributed *pro rata* to shareholders during the following year.[83] Although final distributions were not made until late January, 2010,

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(describing government's position and negotiations during final weekend before Lehman filed bankruptcy petition).

[76] See Dolan, supra note __ (describing pressure placed upon RPF due to its ownership of Lehman bonds).

[77] See, e.g., Lehman Brothers Files, supra note __ (describing value of Lehman assets and likely impact of bankruptcy filing on that value).

[78] In contrast, affiliates of other money market funds holding Lehman debt announced support for their funds. See, e.g., Daisy Maxey, Sponsors to Back Some Lehman Exposure, Wall St. J., Sept. 17, 2008, http://online.wsj.com/article/SB122161204181845907.html (describing announcements by Russell Investments and Evergreen Investments that their sponsors would provide support for the value of Lehman debt held by their funds).

[79] SEC Complaint, supra note __ at 18.

[80] Id. at 19.

[81] Reserve Fund Press Release, supra note __.

[82] See In The Matter of the Reserve Fund, Investment Co. Rel. No. IC-28386 (Sept. 22, 2008). The SEC also granted similar relief to other Reserve funds that had not yet broken the book, so that they could undergo orderly liquidations. See Reserve Municipal Money-Market Trust, et al., Investment Co. Rel. No. IC-28466 (Oct. 24, 2008).

[83] The RPF board set up a special reserve of $3.5 billion in the fund to pay not only expenses of litigation but also damages for which the fund might be liable in lawsuits brought by investors. The SEC subsequently used its power under 25(c) of the Investment Company Act to take over responsibility for liquidating the fund. See William Dodds, et al., SEC Invokes Seldom-Used Power in Reserve Primary Fund Case, Dechert on Point, May 2009, http://www.dechert.com/files/Publication/5fd69795-4aed-40f6-8df1-0d32e48bad81/Presentation/PublicationAttachment/05ae8e9a-3f47-42a3-bb18-0de6136e5aee/FS_12_05-09_SEC_Invokes_Seldom-Used_Power.pdf.

shareholders eventually recovered more than 99 cents on the dollar.[84] In the interim, the SEC sued RPF's management company and its principals for allegedly concealing the financial condition of the fund and the effect of the Lehman bankruptcy on the fund's NAV. The Massachusetts Securities Division filed a similar lawsuit. Dozens of lawsuits were filed by the fund's shareholders.[85]

The RPF's travails led large numbers of investors in other MMFs to redeem their shares. With credit markets freezing up, funds found few buyers for their commercial paper and other short-term debt holdings.[86] Institutional investors, far more than retail investors, led the redemption flight. According to the ICI, investors, primarily institutional investors, withdrew roughly $210 billion from prime money market funds over the next two days.[87] Withdrawals continued and, according to the ICI, during the week of September 15, 2008, investors withdrew $300 billion from prime money market funds, approximately 14% of the assets held in taxable money market funds.[88] These withdrawals threatened the liquidity of MMFs that had no exposure to Lehman assets, depleting their cash positions and causing them to sell other assets. Funds also became more conservative, retaining excess cash holdings and investing a higher percentage of assets in Treasury securities rather than commercial paper. In the two weeks following the Lehman bankruptcy, MMFs reduced their investments in high quality commercial paper by $200 billion, representing 29% of total holdings.[89]

When MMFs fled from commercial paper to the safety of U.S. Treasury securities, the impact on the short term credit markets was dramatic. Commercial paper issuers, that is, ordinary operating companies, which count on money market fund purchases for short term funding, found themselves forced to pay significantly higher interest rates. In many cases issuers were able to obtain only overnight funding, which required them to roll over their positions daily.[90]

The RPF "run" and the credit market freeze-up led the federal government to respond in two ways. To reduce the contagion effect of the RPF's failure, the Department of the Treasury announced a Temporary Guarantee Program for Money Market Funds, a government insurance

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[84] See note 1, *infra.*

[85] See Perrie Michael Weiner, et al., Reserve Fund allocates billions to pay damages after breaking the buck, DLA Piper Securities Litigation Alert, March 23, 2009, avail. at http://www.dlapiper.com/reserve-fund-allocates-billions-to-pay-damages-after-breaking-the-buck/

[86] See MMF Proposing Release, supra note __, at 15 (explaining that redemptions threatened funds with the prospect of a "fire sale of portfolio securities")

[87] MMWG Report, supra note __, at 3.

[88] Id. at 62.

[89] MMF Proposing Release, supra note __ at 16.

[90] The risk posed by fund conservatism on the availability of credit was recently replayed in the European markets. U.S. prime money market funds hold about half their assets in European banks, but those funds presented a risk of rapid withdrawal in the event of a major European failure. See David Reilly, Money Funds' Euro Risk, Wall St. J., June 22, 2011, http://online.wsj.com/article/SB10001424052702304070104576399803087801740.html?mod=djemheard_t

program. Only MMFs maintaining a stable NAV were eligible to participate. Virtually all eligible MMFs chose to do so, paying a premium in return for the federal government's guarantee of the amortized cost value of their investments, as of Sept. 19, 2008.[91] Second, to address the lack of liquidity in the short term credit market, the Federal Reserve Board created the Asset-Backed Commercial Paper Money Market Mutual Fund Liquidity Facility[92] and, through this facility, provided credit to enable banks to purchase commercial paper from money market funds. Although the Guarantee program stemmed the flood of redemptions from money market funds,[93] the measures proved less effective in increasing overall liquidity in the commercial paper market.[94]

III. The Regulatory Response

The Reserve Primary Fund's breaking of the buck and the incipient run on other MMFs led to a chorus of calls for regulatory changes. Although only one other MMF had ever failed to maintain its $1 NAV in the preceding 25 years,[95] the basic model for MMFs that had proven so successful for years now came to be seen as unstable, giving rise to the risk of contagion in any future financial crisis.

In November, 2008, the Investment Company Institute formed its Money Market Working Group, which produced a lengthy report and recommendations in March, 2009.[96] The working group's proposals to amend Rule 2a-7 included shortening the weighted average maturity ("WAM") of an MMF's portfolio from 90 to 75 days and adding a separate WAM requirement (120 days) that disregarded maturity-shortening interest rate reset dates. The working group also proposed a new portfolio requirement– one mandating that MMFs maintain minimum daily and weekly liquidity levels.[97] In particular, the ICI called for MMFs to hold enough short-term assets to provide them with the legal right to convert at least 5% of their portfolios to cash in one day and 20% in one week. The ICI emphasized that its minimum

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[91] See Press Release, U.S. Department of the Treasury, Treasury Announces Guaranty Program for Money Market Funds (Sept. 19, 2008), avail. at http://www.treas.gov/press/releases/hp1147.htm. Among the nation's ten largest MMFs (accounting for two-thirds of total MMF assets), only Vanguard chose not to participate. See Jeffrey N. Gordon & Christopher Muller, Confronting Financial Crisis: Dodd-Frank's Dangers and the Case for a Systemic Emergency Insurance Fund, 28 Yale J. on Reg. 151, 165 at n. 26 (2011).

[92] See, e.g., 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, QAU Working Paper No. QAU10-3, Apr. 29, 2010, avail. at http://www.bos.frb.org/bankinfo/qau/wp/2010/qau1003.pdf.

[93] Id.

[94] MMF Proposing Release, supra note __, at 19.

[95] See note __ supra.

[96] MMWG Report, supra note __.

[97] See Remarks of Edward Bernard, Chairman ICI, 2011 Money Market Funds Summit, May 16, 2011, avail. at http://www.ici.org/policy/regulation/products/money_market/11_mmf_bernard (explaining that working group's proposal imposed "liquidity standards on money market funds for the first time ever.").

liquidity requirements focused on the contractual payment obligations on the issuers of short-term debt, not on assumptions about the availability of buyers in the secondary market. The ICI also recommended that MMFs post their portfolio holdings on their websites monthly and regularly run "stress tests" to gauge how well their portfolios are likely to withstand sudden changes in market interest rates, redemption levels, and credit risk.

With the MMF industry already putting into practice many of the ICI's recommendations,[98] the SEC turned to rulemaking in June 2009.[99] The SEC proposed changes in three areas–strengthening MMFs' investment portfolios, promoting broader and timelier disclosure to investors, and giving MMF boards flexible authority to suspend redemptions for MMFs placed in liquidation.[100] The SEC addressed a measure that the ICI had strenuously opposed in its Working Group's Report: forcing MMFs to abandon amortized cost accounting and the stable $1 NAV and to adopt a floating NAV. The SEC stopped short of proposing this major step but stated that it intended to give this further study and invited public comment.[101]

In February 2010, the SEC adopted its rule changes, patterned largely on its proposals.[102] As amended, Rule 2a-7 now requires MMFs' investment portfolios to have shortened maturities, heightened investment quality, and enhanced liquidity– all subject to discrete quantitative measures. In particular, the rule reduced the maximum weighted average maturity of MMF portfolios from 90 to 60 days (rather than 75 days as sought by the ICI) to mitigate interest rate risk.[103] The rule supplemented this restriction with a new "weighted average life maturity" limit of 120 days–a measure that disregards interest rate reset dates.[104] The final rule limits the percentage and concentration of second tier securities[105] in which money funds are permitted to invest.[106] The rule also imposed greater restrictions regarding the collateral and creditworthiness associated with investments in repurchase agreements.

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[98] See id. (explaining that funds voluntarily adopted the recommendations of the MMWG).
[99] See MMF Proposing Release, supra note __ (introducing proposed rule changes).
[100] Id.
[101] In raising the question of the stable NAV, the SEC noted that the U.S. Department of the Treasury's white paper on financial reform, itself released in June 2009, called for the President's Working Group on Financial Markets (of which the SEC is a member along with the U.S. Treasury, the Fed and the FTC) to come up with its own report to address this very question. MMF Proposing Release, supra note __, at 101, n.294. The President's Working Group has done so. PWG Report, supra note __.
[102]MMF Adopting Release, supra note __.
[103] Id. at 38.
[104] Id. at 43.
[105] First tier securities have received the highest short term debt rating from the relevant NRSRO; second tier securities have received the second highest rating. Interestingly, the final rule retained the structural reliance on NRSRO ratings for determining investment eligibility despite the widespread criticism of the quality of such ratings. According to the SEC: "We have found no evidence that suggests that over-reliance on NRSRO ratings contributed to the problems that money market funds faced during the debt crisis" Id. at 27.
[106] The original proposal would have limited money market funds to investing exclusively in first tier securities. Id. at 12.

The SEC also added new liquidity requirements along the lines proposed. In addition to a general liquidity requirement, tied to "reasonably foreseeable shareholder redemptions," the rule requires minimum daily and weekly liquidity requirements. In particular, MMFs must invest at least 10% of their portfolios in "daily liquid assets," defined to comprise cash, U.S. Government direct obligations and securities that will mature within one business day or provide the holder the right to demand payment within one day.[107] A comparable weekly liquidity requirement mandates that MMFs invest at least 30% of their portfolios in "weekly liquid assets," defined to comprise not only cash and U.S. Government direct obligations but also securities issued or guaranteed by the U.S. government maturing in 60 days or less, and other securities maturing within five business days.[108] These limits are comparable to, but higher than, the limits suggested by the ICI. The final rule also prohibits MMFs from investing more than 5% of the fund's assets in illiquid securities.[109]

To supplement these quantitative limits on MMFs' portfolios, the SEC added a requirement that MMF boards periodically subject the portfolio to stress testing to evaluate how well a fund can maintain its stable $1 NAV in the face of sharp changes in interest rates, credit risks, and levels of redemptions. Rule 2a-7 also requires money funds to post their portfolio holdings on a monthly basis on their websites.[110] Concededly, there is some question as to how valuable monthly disclosure is, given the relatively short term nature of an MMF's holdings. MMFs are also required to provide the SEC with a more detailed monthly electronic filing of their holdings, including information about market-based net asset values, to enable the Commission to oversee money funds more effectively.[111]

The 2010 rule changes also formalized, as an amendment to Rule 17a-9, an exemption from the prohibition on affiliated transactions to enable fund affiliates to purchase distressed securities from MMFs in order to support their stable NAVs.[112] Such purchases – which were used extensively during the last two week of October -- had previously required funds to seek no-action relief from the SEC in order to use this form of sponsor support. The exemption

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[107] See amended rule 2a-7(c)(5)(ii)-(iii). See also amended rule 2a-7(a)(8) (defining "daily liquid assets"). Funds holding themselves out as investing in tax-exempt securities (municipal securities) are exempt from this daily liquidity requirement. Rule 2a-7(c)(5)(ii).

[108] See amended rule 2a-7(c)(5)(ii)-(iii). See also amended rule 2a-7(a)(32) (defining "weekly liquid assets").

[109] Amended rule 2a-7(c)(5)(i). Prior to the amendments, Rule 2a-7 limited such investments to 10% of a fund's portfolio. As with the limitation on second tier securities, the final rule was less restrictive than the original proposal, which would have prohibited funds from acquiring securities that were, at the time of their acquisition, illiquid.

[110] Funds must post information, current as of the last business day of the previous month, no later than the fifth business day of the month. MMF Adopting Release, supra note __ at 76.

[111] See Id. at 77-78 (describing requirements of new rule 30b1-7).

[112] See MMF Adopting Release, supra note __ at 94 (describing expansion of exemption from the Rule's prohibition on affiliated transactions).

contained various safeguards to ensure that the exemption would be limited to distressed securities and not provide an occasion for opportunism.[113]

Lastly, the SEC adopted new Rule 22e-3 to authorize an MMF's board to suspend redemptions in order to facilitate an orderly liquidation.[114] The rule does not require, as a predicate, that the fund "break the buck." The fund's board must, however, determine that "the deviation between the fund's amortized cost price per share and the market-based net asset value per share may result in material dilution or other unfair results" and must "irrevocably" approve the liquidation. And before redemptions are suspended, the MMF must provide notice to the SEC.[115] By limiting redemption suspensions to "extraordinary circumstances," the SEC sought to strike a balance between the hardship on investors that suspensions would impose and disruptions that might be occasioned by a run.[116] Despite suggestions by commentators that the board's suspension power be limited in duration, the SEC decided not to impose such a limit.[117]

IV. The Dodd-Frank Act and the Current Debate

A. Statutory Framework

With passage of the Dodd-Frank Wall Street Reform and Consumer Protection Act (the "DFA"),[118] regulation of MMFs is no longer the sole preserve of the SEC. Rather, the SEC is but one of ten members of the newly-created Financial Stability Oversight Council (the "FSOC"), a federal inter-agency body chaired by the Secretary of the Treasury and dominated by regulators of banks and other depository institutions.[119] In the wake of the financial chaos of 2008, Congress assigned the FSOC a daunting task: identifying systemic risks to the financial

[113]In particular, the amendment included a "claw back" provision that would enable to fund to recover the value of securities that were not truly distressed. Id. at 95.
[114] MMF Adopting Release, supra note __ at 97.
[115] Id. at 98-99.
[116] MMF Proposing Release, supra note __, at 96.
[117] MMF Adopting Release, supra note __ at 101.
[118] Pub. L. 111-203 (July 21, 2010).
[119] Technically, the Chairman of the SEC, not the agency itself, is the member. Banking regulatory members are the Chairman of the Federal Reserve System (bank holding companies and state member banks) and the heads of Office of the Comptroller of the Currency (national banks and federal thrift associations); the Federal Deposit Insurance Corporation (national banks and FDIC-insured state banks); and the National Credit Union Administration Board. To this list can be added the Director of the Bureau of Consumer Financial Protection "BCFB") created under the DFA to regulate credit cards, consumer loans and other retail banking products. The non-bank regulatory members, apart from the Chairman of the SEC, are the heads of the Commodity Futures Trading Commission and the Federal Housing Finance Agency, and an independent member appointed by the President. DFA, § 111.

stability of the United States, and finding flaws in current regulation that allow systemic risks to arise.[120]

A core responsibility of the FSOC is to identify non-bank financial firms that pose risk to our nation's financial stability, that is, systemically risky firms ("SIFIs"). The FSOC is to remand SIFIs to the Board of Governors of the Federal Reserve System (the "Fed") for special, intensive regulation.[121] The FSOC is also called upon to promote market discipline "by eliminating expectations on the part of shareholders, creditors, and counterparties of [systemically risky] companies that the Government will shield them from losses in the event of failure."[122] Elsewhere in the statute, Congress prohibited future bailouts of non-bank financial companies–or at least those placed into FDIC receivership under new provisions for orderly liquidations.[123]

Section 113 of Dodd Frank provides the FSOC with specific instructions regarding the identification of systemically risky firms. For starters, a SIFI must be a "U.S. nonbank financial company,"[124] meaning a U.S. company "predominately engaged in financial activities," a status attained by deriving at least 85% of annual consolidated gross revenues from financial activities or having at least 85% of consolidated assets consist of financial assets.[125] Identifying systemic risk is a more challenging exercise. The DFA sets forth no quantitative test or single standard but

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[120] DFA, § 112(a)(1). Just how daunting a task is exemplified by the testimony of Federal Reserve Chairman Ben Bernanke before the Financial Crisis Inquiry Commission in September, 2010. Asked for a definition of "systemic risk," Chairman Bernanke replied, "There's right now an active academic research literature looking at some of these things, trying to identify, for example, what some of the criteria are; how big; how interconnected, those sorts of things…. [T]o some extent it is going to ultimately remain subjective, and I think the systemic criticality of any individual firm depends on the environment. So our decisions vis-à-vis some of the firms we addressed might have been different in a more calm environment." Financial Crisis Inquiry Commission, Hearing on "Too Big to Fail: Expectations and Impact of Extraordinary Government Intervention and the Role of Systemic Risk in the Financial Crisis" (Sept. 2, 2010) avail. at http://fcic.law.stanford.edu/hearings/testimony/too-big-to-fail-expectations-and-financial-crisis. See also Editorial, The Diviner of Systemic Risk, Wall St. J., Sept. 4, 2010, avail. at http://online.wsj.com/article/SB10001424052748704206804575467872819971324.html.

[121] DFA, §§ 112(a)(2)(H), 113.

[122] DFA, § 112(a)(1)(B).

[123] DFA, §§ 204(a) (in orderly liquidations of financial companies, "creditors and shareholders will bear the losses"), 206(3) (unsecured creditors must bear losses in accordance with the priority of claims), 206(6) (the FDIC is prohibited from taking an equity interest in any non-bank financial company put into receivership), and 214 ("taxpayers shall bear no losses from the exercise of any authority under this title"). According to President Obama, echoing statements of Congressional leaders responsible for DFA's passage, "Because of this reform, the American people will never again be asked to foot the bill for Wall Street's mistakes. There will be no more taxpayer-funded bailouts -- period." Remarks by the President on the Passage of Financial Regulatory Reform (July 15, 2010), avail. at http://www.whitehouse.gov/the-press-office/remarks-president-passage-financial-regulatory-reform.

[124] DFA, § 102(a)(4)(B).

[125] DFA, § 102(a)(6). The DFA also provides for a comparable process to identify foreign nonbank financial companies as SIFIs, to the extent that their activities in the U.S. could pose a threat to the financial stability of the U.S. DFA, § 113(b).

provides a malleable description: a SIFI is a firm the Council determines could pose a threat to the financial stability of the United States because of material financial distress or "the nature, scope, size, scale, concentration, interconnectedness, or mix of" its activities.[126] In so doing, the Council may consider any of ten itemized factors, as well as any other "risk-related" factors it deems appropriate.[127]

The factors, in different iterations, refer to firms that presumably would have been treated as "too big to fail" before passage of the DFA,[128] as well as to firms especially prone to collapse because of leverage, off-balance-sheet exposures, amount and nature of financial assets, or dependence on short-term funding.[129] Of course, systemic risk connotes contagion, so the relevant provision refers twice to a company's "interconnectedness."[130] Rounding out the list are two factors that, in contrast to the others, militate against finding a firm to be a SIFI: whether "assets are managed rather than owned" [131] and whether a company already is subject to a primary regulatory agency.[132] Once the FSOC finds a company to be a SIFI,[133] the statute presumes the Fed will impose rules having their origins in banking regulation, and directs the FSOC to recommend heightened prudential regulation.[134]

To date, the FSOC has not begun to designate non-bank financial companies as SIFIs or adopted rules to deal with systemic risk. In October, 2010, however, the FSOC issued an "advance notice of proposed rulemaking" posing 15 questions aimed at eliciting the views of interested parties and the public on how to proceed with the process of designating non-bank financial companies as SIFIs.[135] Among the questions posed by the FSOC were what metrics or

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[126] DFA, § 113(a)(1).
[127] Id.
[128] DFA, § 113(a)(2)(G) repeats, for good measure, the formulation of "nature, scope, size, scale [and} concentration" set forth earlier in § 113(a)(1). Other listed factors expanding on the theme of "too big to fail" refer to firms important as a source of credit in the consumer, business, or governmental sectors or to low-income, minority or underserved communities. §§ 113(a)(2)(D), (E).
[129] DFA, §§ 113(a)(2)(A), (B), (I), and (J).
[130] DFA, §§ 113(a)(1), (a)(2)(G).
[131] DFA, § 113(a)(2)(F). This provision adds a reference to "the extent to which
[132] DFA, § 113(a)(2)(H).
[133] The Council, in designating a company as a SIFI, must do so by at least a two-thirds vote of its members, and the Treasury Secretary must be among those voting in favor. DFA, § 113(a)(1).
[134] DFA, § 115. Of significance for mutual funds, including MMFs, the DFA gives the Fed leeway to exclude from risk-based capital and leverage limits companies engaged in "investment company activities" or having assets under management, thereby already subject to more stringent prudential standards. DFA, § 165(b) (1)(A)(i). In lieu of risk-based capital and leverage rules, the DFA suggests that the Fed might simply incorporate the SEC's rules into its own prudential standards for these funds. The DFA thus evidences Congress' understanding that mutual funds (notably MMFs) could be designated as SIFIs but, if this were to occur, that funds need not be put in a regulatory straightjacket tied to bank-like prudential standards.
[135]Financial Stability Oversight Council, Advance Notice of Proposed Rulemaking Regarding Authority to Require Supervision and Regulation of Certain Nonbank Financial Companies, 75 Fed. Reg. 193, at 61653, Oct. 6, 2010, http://www.stlouisfed.org/regreformrules/Pdfs/2010-25321.pdf. The four week

quantitative tests, if any, should be used to designate SIFIs; what types of non-bank financial companies should be included in the SIFI universe; and what flesh should be put on the bones of "financial stability" and "material financial distress," as well as factors the DFA lists as relevant to SIFI status (including scope, size, interconnectedness, leverage, types of liabilities and the presence of another primary regulator).

The FOSC followed up in early 2011, proposing a rule setting forth criteria to govern how SIFIs will be designated.[136] The proposal contained no metrics or quantitative standards to apply, and for the most part repeated verbatim or paraphrased the key operative provisions of the DFA [137] In its release accompanying the proposed rule, the FSOC explained how the 11 systemic risk factors identified by the DFA could be distilled into six categories: size, lack of substitutes for a particular financial service, interconnectedness with other financial firms, leverage, liquidity risk and maturity mismatch, and existing regulatory scrutiny.

The FSOC received extensive comments in response to both the notice of proposed rule-making and the proposed rule. A number of commentators focused specifically on MMFs, identifying them as part of the "shadow banking industry" and arguing they should be subject to "enhanced prudential standards" and regulated by the Fed. [138] Other commentators challenged these claims, arguing that MMFs were appropriately regulated by the SEC, particularly with the adoption of the 2010 amendments.[139] Part of the focus on money market funds resulted from the fact that the FSOC was specifically directed to consider the reform options proposed by the President's Working Group.[140]

In July 2011, the FSOC released its first annual report.[141] In the report, the FSOC reiterated the problems experienced by money market funds during the financial crisis in 2008,[142] noted the SEC's expressed concern about the limited ability of its 2010 rule changes to address these

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comment period yielded 50 comment letters (27 from industry associations, 10 from individual companies, 5 from individuals and 8 others). Notice of Proposed Rulemaking Regarding Authority to Require Supervision and Regulation of Certain Nonbank Financial Companies, 76 Fed. Reg. 4555 (Jan. 26, 2011), at 4-5, available at http://www.treasury.gov/initiatives/Documents/Nonbank%20NPR%20final%2001%2013%2011%20formatted%20for%20FR.pdf ("FSOC Notice of Proposed Rulemaking").

[136] FSOC Notice of Proposed Rulemaking, supra note __. The proposed rule would add to Title 12 of the CFR a new Part 1310, "Supervision and Regulation of Certain Nonbank Financial Companies."

[137] Compare proposed rule § 1310.10 with DFA, § 113(a)(2)

[138] See, e.g., Comment letter from Christopher Cole, Senior Vice President and Senior Regulatory Counsel, Independent Community Bankers of America (Nov. 5, 2010), www.icba.org/files/ICBASites/PDFs/cl110510.pdf.

[139] Letter from the ICI to the FSOC dated Feb. 25, 2011, avail. at www.ici.org/pdf/24994.pdf.

[140] See PWG Report, supra note __. The PWG directed the SEC to solicit comments on the Report to assist the FSOC in its examination of the reform options, see SEC Release No. IC-29497 (Nov. 3, 2010), available at http://www.sec.gov/rules/other/2010/ic-29497.pdf.

[141] FSOC 2011 Annual Report, July 2011, http://www.treasury.gov/initiatives/fsoc/Documents/FSOCAR2011.pdf ("FSOC Annual Report").

[142] Id. at 50.

problems and called for further reform alternatives. Specifically the FSOC stated that the SEC should consider: "(1) a mandatory floating net asset value (NAV), (2) capital buffers to absorb fund losses to sustain a stable NAV, and (3) deterrents to redemption, paired with capital buffers, to mitigate investor runs."[143] The FSOC noted, "One of the key factors that contributed to the financial crisis was insufficient analysis and management of liquidity risk by participants in short-term money markets."[144] Nonetheless, the tone of the Report suggested that the FSOC intended, for the time being, to defer to the SEC's existing oversight of MMFs.

V. Money Market Funds and Systemic Risk

The dominant policy rationale for changing the regulation of MMFs is to deal with systemic risk, whatever its primordial cause might be. As events revealed in 2008, when a single MMF breaks the buck, the event presents three types of possible risks: a risk of losses for investors in the fund; a risk of a run on other previously healthy MMFs; and a consequent risk that a major source of short-term credit for businesses and other borrowers will dry up.

The first risk is internalized within the fund and therefore arguably is mischaracterized as a "systemic" risk. When an MMF suffers losses, even losses that lead to breaking the buck, investors who reach the exit first may fare better than those who stay. The former might get out at a $1 per share; the latter might not.[145] Of course, investors should, and do, have recourse against an MMF's adviser and others for misleading statements in prospectuses and elsewhere about a fund's investments and investment policies. The adviser also faces liability for lack of diligence in managing the fund's portfolio.

The extent to which investors should be immunized from the risk that an MMF might break the buck is, however, open to question. For one thing, this risk is an essential part of the bargain to which investors agree when making their investment. Funds explicitly warn investors that their shares are neither guaranteed nor backed by government insurance, and investors (at least retail investors) who seek greater protection have always had the choice of depositing their money with banks and availing themselves of FDIC insurance. Moreover, while retail depositors stood in real or virtual lines at IndyMac and Countrywide Savings reminiscent of *It's a Wonderful Life*, they did not do so for MMFs. Indeed, the overwhelming majority of funds withdrawn in 2008 were from institutional funds. Retail funds saw redemptions only in the range of 15% of fund assets, and many retail investors continued to *add* money to their MMF

[143] Id. at 13.
[144] Id. at 86 (emphasis added).
[145] See, e.g., Letter from Professor Rene M. Stulz, PhD., on behalf of the Squam Lake Group (Jan. 14, 2011), www.sec.gov/comments/4-619/4619-57.pdf (explaining that, if investors fear that market value of fund assets may drop below one dollar per share, they have an incentive to redeem their shares before the fund breaks the buck).

accounts during this very period.[146] To place things in perspective: only two MMFs in four decades have ever broken the buck. Neither was a retail fund.[147]

Of course, an MMF investor, whether retail or institutional, seeks liquidity nearly as much as preserving 100 cents for every dollar invested. Given the highly regulated and conservative nature of MMF assets, the asset value loss that investors foreseeably face under ordinary circumstances is extremely limited. Indeed, the RPF investors eventually received more than 99 cents on the dollar. But the RPF liquidation took months – the fund was still distributing assets to investors more than a year after it broke the buck. Other funds that were closed during this time period temporarily suspended redemptions so that, even though they did not wind up breaking the buck, their investors faced redemption delays.[148] This loss in liquidity is inconsistent with the way that investors use money market accounts. Despite its concern about the RPF, the SEC has not incorporated into its new regulations a mechanism that protects the liquidity of fund investors. Indeed new rule 22e-3 allows a fund to suspend redemptions to ensure an orderly liquidation but does not specify how quickly that liquidation must occur.[149]

The other two risks–a run on MMFs and a freeze in short-term credit–are systemic and highly correlated. When mortgage-related losses hit commercial and investment banks in 2008, policy-makers agonized over the prospects of a second order effect: a run on MMFs that would worsen an already critically weakened financial system. Treasury Secretary Henry Paulson and Fed Chairman Ben Bernanke reportedly informed members of Congress of a risk that up to $5.5 trillion could be drawn out of the money market system within a day or two if the government did not promptly act to forestall what Rep. Kanjorski called an "electronic run on the banks." [150]

MMFs ordinarily are almost fully invested (holding little cash), so massive redemptions can drive them into a spiral of self-liquidation, forcing them to sell off large amounts of commercial paper and other holdings to raise cash. If, as we witnessed in 2008, a bad investment causes one MMF to break the buck, it might not matter whether other MMFs hold the same investment or,

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[146] Felix Salmon, Kanjorski and the Money Market Funds: The Facts, Portfolio.com, Feb. 11, 2009, http://www.portfolio.com/views/blogs/market-movers/2009/02/11/kanjorski-and-the-money-market-funds-the-facts/ ; see also Diana Henriques, Professional Money Fund Is Closed by Putnam, N.Y. Times, Sept. 18, 2008, http://www.nytimes.com/2008/09/19/business/19money.html (noting that "retail investors appear to still see money market funds as safe havens").

[147] See Hawke letter, supra note __ at 5 (stating that Community Bankers Fund, which broke the buck in 1994, had only institutional investors).

[148] See Henriques, supra note __ (describing 7 day redemption delay imposed by Putnam on 16 institutional funds.

[149] Previously funds were required to obtain an exemptive order from the SEC in order to suspend redemptions.

[150]See The Rush Limbaugh Show Website, Shocker: Electronic Money Market Run Nearly Destroyed US Economy, Feb. 10, 2009, http://www.rushlimbaugh.com/home/daily/site_021009/content/01125106.guest.html (posting transcript of interview of Rep. Paul Kanjorski, Chairman of the House Capital Markets Subcommittee on C-Span's Washington Journal on Jan. 27, 2009).

for that matter, any other investment posing a tangible risk of default. Nor does it necessarily matter that MMFs have few if any contractual dealings with one another; firms need not be linked together like bulbs on a string of Christmas tree lights. Instead, systemic risk can spread when market participants (in this case, institutional investors in MMFs) perceive (correctly or incorrectly) different firms to be following(whether the perception is well-founded or not) a similar business model or engaging in similar activities that have brought disaster to one of them, leading third parties to retreat from further business dealings with them.[151]

When a single shock happens somewhere in the money market fund industry, as when one MMF breaks the buck, investors may thus be prone to redeem preemptively from their funds, choosing to err on what they believe, with imperfect information, to be the side of caution. What starts as caution quickly turns into collective panic as MMFs are forced to sell their holdings at fire sale prices. Banks historically faced similar, but more acute, problems as they came under pressure to sell less liquid (or illiquid) long-term loans to pay withdrawing deposits. FDIC insurance was instituted to protect banks as much, if not more than, their depositors.

MMFs are associated with the potential for a third type of systemic risk. This is the risk that the market for short-term credit, especially the commercial paper market, will cease to function, to "seize up," as MMFs continue their spiral of self-liquidations and other lenders curtail or cease their lending activity. At the peak of the commercial paper market in mid-2007, MMFs held 30% of outstanding commercial paper.[152] According to the SEC, in the final two weeks of September 2008, money market funds reduced their holdings of commercial paper by 29%.[153] This in turn removed over $200 billion from the short term credit markets, leading to higher interest rates and an increasing need to firms to fund their operations through securities that had to be refinanced on an overnight basis. In the absence of intervention by the federal government to provide support for the short term credit markets, the extent to which the credit freeze would have interfered with business operation is unclear, but the government was sufficiently concerned to create the AMLF to finance bank purchases of high quality commercial paper in order to increase the availability of short term financing.

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[151] See Jeffrey N. Gordon & Christopher Muller, Confronting Financial Crisis: Dodd-Frank's Dangers and the Case for a Systemic Insurance Fund, 28 Yale J. on Reg. 151, 160 (2011) ("depositors learn from the failure of one bank with a particular asset and liability strategy that similarly situated banks are at risk."); Douglas J. Elliott & Robert E. Litan, Policy Brief, Identifying and Regulating Systemically Important Financial Institutions: The Risks of Under and Over Identification and Regulation (Jan. 16, 2011) avail. at http://www.scribd.com/doc/50571692/Identifying-and-Regulating-Systemically-Important-Financial-Institutions-The-Risks-of-Under-and-Over-Identification-and-Regulation ("Sometimes the principal damage from the collapse of a financial institution comes from serving as a "bad example" that causes the market to reassess which other organizations might wind up in the same difficulties."]

[152]MMWG Report, supra note __, at 20. By mid-2007, issuers had a total of $2.1 trillion of commercial paper outstanding; MMFs held approximately $642 billion. Id.

[153]MMF Adopting Release, supra note __, at 7.

Why did banks not seize the opportunity in the fall of 2008 to increase their short-term lending and take market share away from MMFs? The money markets are, after all, of relatively recent origin. Even at the peak of the commercial paper market in 2007, lenders other than MMFs had a 70% share of the market. Before the 1970s, businesses relied more heavily on banks for short term financing. Commentators observe that banks are not equipped to provide short term financing by purchasing commercial paper and similar debt instruments.[154] Certainly, interest rate spreads are tighter for these instruments, reducing banks' profitability. Banks have preferred to provide lines of credit to back up companies' commercial paper obligations, rather than to buy the paper themselves, in order to avail themselves of less demanding capital requirements under the risk-based capital rules.[155] Traditionally banks have not provided state and local governments with the type of financing available through money market funds,[156] and they lack the capacity to pass the tax exempt status of such investments through to their depositors. Rather than filling the breach in 2008, banks did quite the opposite, reducing rather than expanding their overall lending, including short-term lending.[157]

While MMFs are associated with systemic risk, whether they are a cause (or a primary cause) of systemic risk is open to question, particularly in regard to the financial chaos of 2008. In any lineup of suspects who helped propagate the virus in the years leading to the financial chaos of 2008, the investment banks, commercial banks, mortgage originators and wholesalers, AIG, Fannie Mae and Freddie Mac stand out far more starkly than do MMFs.[158] While one MMF broke the buck in September, 2008, so did a stable $1 NAV investment pool that was not an

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[154] Blackrock, ViewPoint: Money Market Mutual Funds, The Case Against Floating the Net Asset Value, July 13, 2010. Risk-based capital rules for banks assign a 100% weighting to commercial paper as well as all other claims on private obligors. 12 C.F.R. Part 3 – Appendix A. Risk-Based Capital Guidelines. Currently, this means that banks must have $8 of capital for every $100 of commercial paper held on their balance sheet.

[155] Because a commercial line of credit is an off-balance sheet contingent commitment (and correspondingly represents a contingent asset), the risk-based capital rules require that a bank carry only 50% of the capital that would be required for a commercial loan carried on the bank's books. 12 C.F.R. § 1.3, Appendix A, Table 2–Credit Conversion Factors for Off-Balance Sheet Items.

[156] MMFs currently purchase 65% of all short term government debt. Comment Letter from Catherine A. Provencher, New Hampshire State Treasurer to SEC dated Jan. 10, 2011, avail. at www.sec.gov/comments/4-619/4619-52.pdf.

[157] Victoria Ivashina & David Scharfstein, Bank lending during the financial crisis of 2008, 97 J. Fin. Econ. 319 (2010).

[158] Undue weight should not be placed on a "butterfly effect" theory of systemic risk, where one or more firms in an industry (say, MMFs) incur modest investment losses that are then presumed to set in motion an extended chain of events ending in catastrophic losses for other types of firms (say, commercial or investment banks). Just as eradicating butterflies in Brazil in order to eliminate tornadoes in Texas is a disproportionate response, so too is eliminating MMFs (by banning stable NAVs) in order to save commercial and (if they ever re-emerge) investment banks from themselves. The butterfly effect is a component of chaos theory that focuses on the sensitivity of complex systems to small disturbances. See, e.g., Troy Shinbrot, et al., Using the sensitive dependence of chaos (the ''butterfly effect'') to direct trajectories in an experimental chaotic system, 68 Phys. Rev. Lett. 2863 (1992) (demonstrating experimental verification of butterfly effect).

MMF -- the BNY Institutional Cash Reserves fund, a bank-sponsored stable value securities lending collateral pool holding $22 billion of assets. The pool's NAV fell to 99.1 cents per share on September 16, reflecting a loss on its holding of Lehman commercial paper.[159] As the ICI has pointed out, before the RPF broke the buck, Countrywide Financial Corp., Indy Mac Bank and assorted other financial firms had failed; the U.S. government intervened to support the rescue of Bear Stearns by J.P. Morgan, and the government took over two imploding government-sponsored financial behemoths, Fannie Mae and Freddie Mac., among other events.[160]

As for the "run" on other MMFs, one can argue that institutional investors in MMFs, rather than the funds themselves, transmitted systemic risk through their massive redemptions.[161] Decision-makers in mid-September, 2008, had well-grounded fears of what could happen, even what was likely to happen, to MMFs absent governmental intervention. But we do not know what is counterfactual. How long would redemptions have continued to mount if the U.S. Treasury had not stepped in with its temporary insurance program? It is plausible that many if not most fund management firms, in their own interests as well as their investors, would have provided capital support to their funds to support the $1 NAV, enough to stave off a crippling industry-wide run.[162] The financial support that fund management firms provided to their MMFs not only in the immediate aftermath of RFP's breaking of the buck,[163] but also during 2007 when the subprime mortgage market unraveled, support this view.[164] Received wisdom, of course, says the opposite, that a redemption panic would have run its full course and devastated MMFs.[165] Whether or not MMFs are the primary cause of systemic risk, it is difficult if not

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[159] MMWG Report, *supra*, at 63. In addition, the credit market meltdown in September 2008 led Wachovia Bank to liquidate its non-MMF fund, the $40 billion Common fund (a bank common trust fund). *Id.*

[160] Id. at 2-3.

[161] *See* David M. Geffen & Joseph R. Fleming, Dodd-Frank and Mutual Funds: Alternative Approaches to Systemic Risk, (February 10, 2011), avail. at http://blogs.law.harvard.edu/corpgov/2011/02/10/dodd-frank-and-mutual-funds-alternative-approaches-to-systemic-risk/, Bloomberg Law Reports: Securities Law, Vol. 5, No. 4, Jan. 24, 2011, http://ssrn.com/abstract=1760213.

[162] The SEC has estimated that approximately 20% of all money market funds received some form of financial support from their sponsors during the period from August, 2007 to December 31, 2008. MMF Proposing Release, supra note __ at 20, n. 64.

[163] According to the ICI, Bank of New York Mellon Corp. provided support to four of its Dreyfus MMFs; Wachovia, to its Evergreen Funds; Northwestern Mutual, to its Russell Funds. Riversource Investments and Columbia Management also supported their MMFs. See MMWG Report, supra, at 62.

[164] Instruments backed by subprime mortgages found their way into structured investment vehicles ("SIVs), investment pools that were not registered as mutual funds. Institutional investors, including MMFs, bought short-term debt issued by SIVs. In 2007, at least four sponsors of MMFs (SEI Investments, Legg Mason, Bank of America, and SunTrust Bank) provided financial support to their MMFs to enable them to maintain a stable NAV. See Shannon D. Harrington & Christopher Condon, Bank of America, Legg Mason Prop Up Their Money Funds, Bloomberg, Nov. 13, 2007, avail. at http://www.bloomberg.com/apps/news?pid=newsarchive&sid=afcMYJuNZ3G8&refer=home

[165] Without Treasury's guarantee program, MMFs might have stemmed the tide of redemptions by shifting more assets into cash or Treasury securities and posting current holdings on their websites. Institutional investors might have slowed their redemptions upon seeing that retail investors were staying

impossible to conclude they are immune from its contagion. This raises the critical question: could MMFs deflect systemic risk if they were compelled to adopt a floating NAV?

V. Money Market Funds and Floating NAV

As previously noted, policymakers have repeatedly characterized the SEC's 2010 reforms as a "first step" in strengthening money market funds[166]and expressed particular concern that the prior rule changes are not sufficient to prevent a run. [167] At the time that the SEC adopted the 2009 amendments to the money market fund rules, SEC Chair Mary Schapiro stated that the Commission was continuing to "pursue more fundamental changes to the structure of money market funds."[168] As a result, a broad range of additional reforms have been proposed and are under consideration. The SEC hosted a Roundtable on May 10, 2011 to discuss further reform proposals.[169] The House Financial Services Subcommittee on Capital Markets and Government-Sponsored Enterprises also held a hearing on June 24, 2011.[170]

The dominant, and possibly most controversial,[171] reform proposal involves forcing MMFs to use a floating NAV.[172] Bank regulators and former bank regulators such as Paul

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with their funds without adverse results. For MMFs whose redemption levels remained high, fund advisers and boards might have followed Putnam's lead by closing the funds before they broke the buck On September 24, 2008, the Putnam Prime Money Market Fund merged with Federated Prime Obligations Fund; the merged fund maintained the $1 NAV. *See* MMWG Report, supra note __ at 62

[166] See MMWG Report, supra note __, at 16.

[167] See, e.g., Treasury's Financial Regulatory Reform: A New Foundation (2009) (stating that the measures taken by the SEC "should not, by themselves, be expected to prevent a run on MMFs of the scale experienced in September 2008."); FSOC Annual Report at 13 (recounting SEC's position that "a number of features still make MMFs susceptible to runs and should be addressed").

[168] Mary Schapiro, Speech by SEC Chairman: Remarks Before the Money Market Funds and Systemic Risk Roundtable May 10, 2011, http://www.sec.gov/news/speech/2011/spch051011mls.htm.

[169] See, e.g., Jeanine H. Arnett, SEC Hosts Roundtable to Discuss Money Market Fund Reform, Association for Finance Professionals Website, May 16, 2011, http://www.afponline.org/pub/res/news/SEC_Hosts_Roundtable_to_Discuss_Money_Market_Fund_Reform.html (describing Roundtable).

[170] Garrett Chairs Hearing to Explore Mutual Fund Industry, Webpage of U.S. Congressman Scott Garrett, June 24, 2011, http://garrett.house.gov/News/DocumentSingle.aspx?DocumentID=248626; Hearing entitled "Oversight of the Mutual Fund Industry: Ensuring Market Stability and Investor Confidence", House Committee on Financial Services Website, June 24, 2011, http://financialservices.house.gov/Calendar/EventSingle.aspx?EventID=247410 (posting announcement of hearing)

[171] See Liz Skinner, Regulators eyeing changes to money funds, Investment News, May 8, 2011, http://www.investmentnews.com/apps/pbcs.dll/article?AID=/20110508/REG/305089968 (describing floating NAV as one of the more controversial proposals).

[172]A floating NAV is at the forefront of potential regulatory reforms under consideration by FSOC and the SEC. See, e.g., Andrew Hickey, FSOC calls for money market reforms, GFS News, July 27, 2011, http://www.gfsnews.com/article/2538/1/FSOC_calls_for_money_market_reforms (stating that "FSOC is encouraging the Securities and Exchange Commission to pursue reforms that would move the funds to a mandatory floating net asset value").

Volcker and Sheila Bair have been particularly strong proponents of requiring money market funds to move to a floating NAV.[173] Indeed, Sheila Bair has termed the stable NAV a "myth."[174]

This characterization is difficult to reconcile with the legal framework within which money market funds operate, and it is at odds with four decades of performance. The ICA and SEC rules mandate, as discussed earlier, that MMFs, like other mutual funds, ensure that redeeming shareholders receive the approximate value of their ownership interests in their funds. Toward this end, MMFs must calculate their NAVs to reflect the fair value of their investment portfolios. This is an inherently imperfect exercise for all mutual funds. Equity and bond funds round their NAV to the nearest penny per share. Comparably, the SEC's rules allow a MMF to maintain a stable $1/share price if, and only if, the re-sale value and amortized cost value of the fund's investment portfolio stay within extremely close proximity to one another, separated by no more than ½ of 1%. Indeed, for the MMF industry as a whole, the proximity of re-sale value and amortized cost value has (with very rare exceptions) remained exceedingly close. A recent study by the ICI found that over the period from January, 2000 to April, 2010, a representative group of taxable MMFs (accounting for 27% of all assets of MMFs in this category), maintained portfolios whose mark-to-market values typically deviated within an even more narrow range of one-tenth of 1%, with occasional deviations of only two-tenths of 1%.[175]

It is curious that banking regulators have chosen to attack MMFs because of their use of amortized cost accounting in lieu of mark-to-market accounting. The chief opponents of mark-to-market accounting, of course, have been the banks themselves–at least when it is proposed that this accounting method be applied to their own investment assets, that is, loans.[176] What has been the argument used by the banks against amortized cost accounting? It is that this accounting method is inapt when applied to assets that have high credit quality and are held to maturity.[177] This, of course, is the very logic that underlies use of amortized cost accounting by

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[173] See Capital Advisors Group. On Floating Net Asset Values of Money Market Funds: Will The Curtain Rise?, June 1, 2011, http://www.google.com/url?sa=t&source=web&cd=6&ved=0CEgQFjAF&url=http%3A%2F%2Ffixedincomecolor.com%2Fdownload%2Fdoc_download%2F512-floating-navs-of-money-market-funds&rct=j&q=volcker%20money%20market%20funds%20floating%20nav%202011&ei=iFkfTtSYMujN0AGGkeWsAw&usg=AFQjCNGZGue8OcywtT8D2Kjj5YHRtFk96w&sig2=5ulm6Oqgj5TvI4ivJee90A (summarizing remarks at SEC Roundtable).

[174] Ronald Orol, FDIC's Bair says money funds run moral hazard, Fundwatch, May 10, 2011, http://www.marketwatch.com/story/fdics-bair-says-money-funds-run-moral-hazard-2011-05-10

[175] ICI Research Report, Pricing of U.S. Money Market Funds (Jan. 2011), Figure 14, p. 26.

[176] See, e.g., American Bankers Association, 2011 Government Relations Action Priorities, Dec. 2010, avail. at http://www.aba.com/Industry+Issues/ABAGRPriorities.htm ("ABA will oppose the plans of the Financial Accounting Standards Board (FASB) to impose mark-to-market accounting on all bank financials").

[177] See Letter from Donna J. Fisher, Senior Vice President, American Bankers Ass'n to Russell Golden, Technical Director, Financial Accounting Standards Board , dated Aug. 31, 2010 ("ABA Letter") ("ABA supports accounting that is based on the business model: instruments managed for . . . long-term investment in order to collect the contractual cash flows should be accounted for at amortized cost, with a

MMFs–and the indispensable predicate for their stable NAV. The banking industry has also pointed out that mark-to-market accounting will spawn differing valuations from bank to bank, undermining reliability and comparability.[178] The banks have not been alone in their fight: they have drawn support from their present and past regulators.[179]

Banning a stable NAV seems especially problematic when one considers what is likely to happen if, in the name of eliminating systemic risk, regulators embrace a course that will enlarge the very threat we seek to extinguish. As others have noted, those who seek cash management services that MMFs now provide will turn largely to banks. Eliminating MMFs as an alternative to bank deposits means greater concentration of risk in the one sector of our financial system that history has indisputably shown to be most prone to systemic risk, the banks.[180] Those failures are caused or exacerbated by the substantial mismatch of long-term assets (residential or commercial mortgages and multi-year loans) and short-term liabilities (that is, deposits) held by banks. And as creditors, bank depositors, in contrast to MMF shareholders, have claims against total, not net, assets.

Advocates for a floating NAV for MMFs further contend that this change will curtail panic redemptions because investors will no longer fixate on whether an MMF deviates from a $1 per

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vigorous impairment model. Such an accounting model reflects how the entity will generate its future cash flows."). Interest rate risk, of course, increases as a debt instrument's maturity lengthens. Accordingly, if amortized cost accounting should apply to long-term debt investments held to maturity, it seems *a fortiori* that this should be the accounting method for the short-term debt investments held by MMFs.

[178] ABA Letter, supra, 6 ("[T]here is no active market . . . for the vast majority of commercial loans held by banks. In essence, such values must be derived by "making up" an imaginary market in which to sell these loans. This obviously invites enormous variability in assumptions and in any recorded amounts.")

[179] The ABA Letter provides these examples:

FDIC Chairman Sheila Bair, interviewed by Steve Forbes on www.forbes.com (August 2, 2010):

- For "deposits and loans held to maturity, there's no liquid market for them." She further stated: "There is no way to mark them really that would be realistic and I think helpful to investors. So requiring these loans to be mark-to market as opposed to held at amortized cost, I think will be less transparent, not more transparent.
- "I think all the bank regulators are very much concerned and do not support this proposal."

Former Federal Reserve Chairman Paul Volcker, interviewed on CNBC with Larry Kudlow, June 14, 2010 on mark to market:

- "...it's appropriate for trading operation, it's appropriate for instance if you are going to trade. It's not appropriate for the basic portfolio of instruments that you have created with a customer and intend to hold--the loan portfolio."

[180] During the four decades in which MMFs have been in operation, over 2800 FDIC-insured banks and other depository institutions have failed. See Letter from John D. Hawke, Jr. to Elizabeth M. Murphy, Secretary, SEC, dated March 15, 2011.

share price.[181] If the goal is preventing runs, however, forcing MMFs to abandon a stable NAV might well prove counterproductive. The mere fact that a fund's NAV floats is unlikely to forestall redemptions from an underperforming fund or a fund caught in the swirl of a credit market meltdown. Nor will a floating NAV relieve the pressure on a fund's liquidity, which in turn may reduce the fund's NAV still more. Unlike a fixed NAV fund where, so long as the fund does not break the buck, all investors stand to receive $1 per share, in a floating fund, investors may reasonably foresee a downward spiral in prices that accelerates the pace of withdrawals. Indeed, the RPF's practice of calculating and disclosing its NAV hourly may have been a factor that contributed to the speed with which investors demanded redemption of their funds when the NAV declined.[182]

The market record of so-called ultra short bond funds is instructive. Ultra-short bond funds are a near equivalent to money market funds but for the fact that they maintain a floating NAV.[183] Experience with short term bond funds that have floating NAVs supports this concern. While their share of assets pales in comparison to MMFs, ultra-short bond funds faced waves of redemptions comparable in respective magnitude to what MMFs faced. Indeed, contractions of ultra-short bond funds likely exacerbated the freeze in the short term credit markets.[184] By the end of 2008, assets in these funds were 60% below their peak level in 2007.[185]

In Europe, both types of money market funds – those with stable NAVs and those with floating NAVs – have co-existed for years.[186] Floating NAV money market funds suffered substantial redemptions during the credit crisis in 2008, leading more than a dozen of them to suspend redemptions temporarily and four of them to close altogether.[187] French floating NAV

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[181] But see Taxpayers and Money Market Funds, Review and Outlook, Wall St. J. (May 9, 2011), http://online.wsj.com/article/SB10001424052748704517404576223081850781452.html (arguing that the risk is the cost to taxpayers associated with a MMF bailout). Some commentators also argue that the insurance fund created a moral hazard problem. It is worth noting, however, that funds paid for the insurance; it was not provided for free. Indeed, since no claims were filed under the policy, taxpayers made money on the insurance.

[182] See SEC Complaint, supra note __ at 11 (explaining that "Unlike most other money market funds, which compute a per share NAV on a once daily basis, the Primary Fund, pursuant to its prospectus, computed its NAV on an approximately hourly basis").

[183] The investment portfolios of ultra-short bond funds have longer weighted average maturities (around 12 months) than those of money market funds. Ultra-short bond funds are also not subject to the investment restrictions of Rule 2a-7.

[184] See, e.g., In re David W. Baldt, SEC Admin Proc. File No. 3-13887, April 21, 2011, at 5-6, www.sec.gov/litigation/aljdec/2011/id418rgm.pdf (detailing large redemptions from Schroder short term bond funds).

[185] Statement of the Investment Company Institute, SEC Open Meeting of the Investor Advisory Committee, May 10, 2010, at 4, www.ici.org/pdf/24289.pdf.

[186] Institutional Money Market Funds Ass'n, Comment Letter to SEC on President's Working Group Report on Money Market Fund Reform (Jan. 10, 2011), available at http://www.sec.gov/comments/4-619/4619-21.pdf

[187] Id.

money market funds lost about 40% of their assets during a three month period in the summer of 2007.[188]

Commentators also argue that a floating NAV would reduce the moral hazard problem by making it clear to investors that they could lose money in a MFF. A Wall Street Journal editorial expressed this view.[189] William Birdthistle expanded on this analysis in a recent academic article, claiming that the stable NAV obscures the true value of MMF assets, leaving investors to "operate in an artificial bubble ignorant of growing systemic risks."[190] The foundation for the concern about investor perception is unclear. Significantly, institutions currently invest more than twice as much money in MMFs as retail investors.[191] Moreover, institutional, not retail, money funds have been subject to the threat of heavy investor withdrawals. Although institutional investors may prefer the stability of money fund pricing, it is difficult to believe that they are operating under the misconception that share price cannot deviate below $1.

Commentators also claim that a floating NAV ensures fair treatment of fund investors. In a fund with a stable NAV, to the extent that a fund's NAV falls below $1/share, investors can arguably obtain a windfall by exploiting the pricing mismatch and redeeming their shares for $1.[192] It is worth noting, that any such mismatch would not resemble a true arbitrage opportunity as long as investors could not purchase shares at less than $1.

Jeff Gordon offers a different reason for supporting a floating NAV.[193] Gordon argues that the restrictive limitations on MMFs that result from the need to support a stable NAV cause MMFs to restrict investments in order to protect their portfolios. This behavior was reflected in MMF shifts in their investments from commercial paper and repurchase agreements to government securities and cash in 2008.[194] In turn, these efforts contribute to the fragility of firms that are unable to issue commercial paper. Gordon argues that requiring funds to use a

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[188] Testimony of Paul Schott Stevens, President and CEO, ICI, Before the Subcommittee on Capital Markets and Government Sponsored Enterprises, Committee on Financial Services, U.S. House of Representatives, June 24, 2011, at 33, financialservices.house.gov/UploadedFiles/062411stevens.pdf

[189] See Taxpayers and Money Market Funds, supra note __ (stating that if money market funds adopt a floating NAV, investors would better understand the risks that funds can lose value). See also Jeffrey Gordon, Why Investors Should Worry About Money Funds, Wall St. J., June 3, 2011, http://online.wsj.com/article/SB10001424052702304520804576343093940388186.html (stating that "If investors aren't tied psychologically to $1 a share, they won't react wildly if the price occasionally dips below it").

[190] Birdthistle, supra note __, at 1193.

[191] Jonathan Macey, Reducing Systemic Risk: The Role of Money Market Mutual Funds as Substitutes for Federally Insured Bank Deposits (January 4, 2011), http://ssrn.com/abstract=1735008.

[192] Letter from Jeffrey Gordon to Elizabeth Murphy dated Sept. 9, 2009, http://www.sec.gov/comments/s7-11-09/s71109-133.pdf. (warning that investors may "rush to exploit a pricing mismatch between fixed net asset value and market value").

[193] Id.

[194] Id. at 7 (describing the "contribution of MMFs to the fragility of financial firms").

floating NAV, coupled with a reduction in the restrictions on MMF portfolios, would reduce this pressure and strengthen the credit markets.

The merits of Gordon's proposal depend critically on the continued vitality of the MMF market. If the move to a floating NAV initiates widespread withdrawals from MMFs, the result will instead be a substantial reduction in the availability of short term financing. It is worth noting that, to the extent policy-makers are concerned about a reduction in the credit capacity of the money markets, a shift to a floating NAV may well cause a withdrawal of assets from money markets far greater than the one that occurred in September 2008. As Charles Cardona, President, The Dreyfus Corporation warned in a comment letter to the President's Working Group, implementing a floating NAV requirement could "precipitate the movement of at least hundreds of billions of dollars to alternative (regulated or unregulated) liquidity sources."[195] In addition, to the extent that investors move assets from floating NAV money market funds to bank accounts, this response would simply have the effect of transferring the risk of runs from money market funds to banks, particularly since bank deposits are only insured up to $250,000.[196]

This Article argues that forcing MMFs to use a floating NAV will substantially jeopardize the continued vitality of the MMF market. Critically, the extent to which MMFs with floating NAVs will meet the preferences of investors is very much in doubt. As ICI President Paul Scott Stevens explained, many MMF investors are required by law to hold cash in stable value accounts.[197] This requirement would preclude them from investing in a MMF with a floating NAV. All investors would face increased transaction costs associated with a floating NAV, including recordkeeping costs, accounting issues and potential tax liability. A floating NAV would make each MMF transaction a taxable event and would require an investor to allocate shares and identify the basis for individual transactions, making the use of a MMF as an alternative to a checking account administratively impractical. A floating NAV would also prevent MMFs from providing investors with same day access to their funds, reducing their appeal as a cash management tool.[198]

Indeed, the market investor appetite (or lack thereof) for floating NAV funds is demonstrated convincingly by the market. At the end of September 2010, money market funds

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[195] Letter from J. Charles Cardona to Elizabeth Murphy dated Jan. 10, 2011, at 2, www.sec.gov/comments/4-619/4619-24.pdf.

[196] See, e.g., Stulz letter, supra note __, at 3 ("If investors strongly prefer stable-NAV type products, then requiring that all funds have a floating NAV might induce investors to shift their investments into bank deposits as a substitute for stable-NAV money market funds. Because the bank deposits of large institutional investors are uninsured, this could simply move the threat of runs from money market funds to the banking sector.").

[197] Paul Scott Stevens, Wall Street Journal Editorial Ignores "Economic Disruption" of Floating the Value of Money Market Funds, http://www.ici.org/mmfs/snav/11_resp_wsj_mmfs.

[198] Investors would have to wait until after the fund next calculated its NAV before their redemption requests could be satisfied.

held $2.8 trillion in assets, despite the fact that the return on these funds did not differ substantially from zero.[199] Short term bond funds, which were paying higher yields, held just $170 billion in assets.[200] The dramatic difference in investor appetite suggests regulators should proceed with caution in assuming that investors will accept a floating NAV alternative.[201]

VII. Alternatives to a Floating NAV

A. Other Reform Proposals

Although requiring a floating NAV might lead investors to forsake money market funds in favor of alternative investments,[202] former Federal Reserve Chair Paul Volcker is one commentator who would not mourn the death of the money market fund industry. For 30 years, Volcker has argued that MMFs compete with banks on an unfair basis because they are able to offer investors comparable services without the costs of regulation borne by banks.[203] As a result, Volcker has proposed an alternative that is exactly the opposite of requiring a floating NAV – allowing MMFs to maintain a stable share price, but regulating them as banks. Volcker argues that "funds offering bank-like services should be required to reorganize as special purpose banks 'with appropriate prudential regulation and supervision, government insurance and access to central bank lender-of-last-resort facilities.'"[204]

It is beyond the scope of this article to describe existing banking regulation in detail and compare its structure to the regulation of money market and other mutual funds under the Investment Company Act.[205] Nonetheless, the suggestion that bank regulation will increase the

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[199] Independent Directors Council, The Case for Stable NAV Money Market Funds, Nov. 2010, avail. at http://www.idc.org/govaffairs/fin_srv/mmf/ci.10_mmfs_caseforstablenav.print.

[200] Id.

[201] Another alternative that sponsors offered in the early 2000s was stable value funds – funds that were able to maintain a stable share price by entering into an insurance contract that covered deviations in the fund's NAV. David Hoffman, Stable Value Funds: Unsexy but lots of Sticker Shock, Investment News Article, Sept. 23, 2002. Although these funds had some appeal for conservative investors, their fees substantially exceeded the typical expenses of a money market fund. Sponsors greatly reduced their offerings of stable value funds when, in 2004, the SEC raised questions about the accounting treatment used by these funds. See, e.g., Eric Jacobson, Is this the Death of Stable Value Funds?, Morningstar.com, Aug. 18, 2004, http://news.morningstar.com/articlenet/article.aspx?id=114917 (describing SEC inquiry).

[202] See, e.g., Macey, supra note __ at __ ("a floating NAV, likely would curtail significantly, or potentially eliminate altogether, the money market fund industry as we know it").

[203] Christopher Condon, Volcker Says Money-Market Funds Weaken U.S. Financial System, Bloomberg, Aug. 25, 2009, http://www.bloomberg.com/apps/news?pid=newsarchive&sid=a5O9Upz5e0Qc (quoting Federated Investors Inc. Executive Vice President Eugene F. Maloney as stating that "Paul Volcker has a 30-year hatred of money funds").

[204] Id. (quoting recommendation by the Group of Thirty, a think-tank chaired by Volcker).

[205] Under existing law, banks and MMFs provide market competition for each other. Although banks comply with different rules, both regulatory systems involve trade-offs. Banking rules confer advantages to banks, for example, that are not available to MMFs, including FDIC insurance and access to the Fed window in the ordinary course of business. Moreover, capital adequacy and other rules that apply to

safety of money market funds or reduce the incidence of runs is indeed a dubious proposition. Over the history of money market funds, and during the financial crisis in particular, money funds performed far better than banks in maintaining their financial strength. One money fund broke the buck during the financial crisis, and its investors received more than 99 cents on the dollar. Federal guarantees of money market fund assets yielded $1.2 billion in premiums, and no payments were required to investors. In contrast, from January 2008 to December 2009, 165 U.S. banks failed.[206]

An alternative to turning money market funds into banks is to provide a similar safety net to that used by banks, an insurance fund. Several alternatives forms of insurance have been suggested. Jon Macey has proposed a permanent federal insurance fund akin to that provided to banks.[207] Although federal insurance appeared to be effective in stemming withdrawals from MMFs in 2008 and did not require taxpayer funding – indeed, it generated revenue for the federal government – the Dodd-Frank Act has eliminated the authority of the Treasury to provide such insurance in the future. Concededly federal insurance has the potential to create a moral hazard problem by reducing investor policing of risky money market fund portfolios. As a practical matter, however, the level of risk that funds can achieve consistent with the restrictions of rule 2a-7 is quite limited, and the pricing of such insurance would potentially reduce any such problem.[208]

The fund industry has advanced an alternative proposal in which the insurance fund would be created through fund contributions. Termed a "private emergency liquidity facility," the fund would initially be capitalized through contributions from fund sponsors.[209] All prime money market funds would be required to participate and to make ongoing contributions. The fund would be available during times of reduced liquidity to purchase securities from money market funds, enabling funds to respond to redemption requests without the obligation to sell assets at distressed prices.[210]

A third option is for individual funds to arrange private insurance or to self-insure. A private insurance system could be either mandatory or voluntary. Although a voluntary system would not ensure industry-wide protection from systemic risk issues, it would presumably add stability as well as providing a market test of the extent to which MMF investors value additional protection of a stable share price.

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banks are integral to a banking model built on short (or zero) term liabilities, long term assets, and limited liquidity.

[206] See Failed Bank List, available at http://www.fdic.gov/bank/individual/failed/banklist.html.

[207] See Jonathan Macey, Why Investors Shouldn't Worry About Money Funds, Wall St. J., June 3, 2011, http://online.wsj.com/article/SB10001424052748704904604576335392541845616.html ("my recommendation is to extend deposit-insurance protection to money funds").

[208] See 12 C.F.R. § 327.9 (describing risk based analysis used to price bank deposit insurance).

[209] ICI Comment Letter dated Jan. 10, 2011, http://ici.org/pdf/11_sec_pwg_com.pdf.

[210] Id.

Private insurance is a variation on the stable value funds that some sponsors offered in 2002 and 2003.[211] These funds were not classified as money market funds and hence were not subject to Rule 2a-7. They used insurance contracts to cover the difference between the market value of their assets and their stable NAV of $1/share to ensure that investors would receive the book value of fund assets.[212] The insurance contracts, known as wrap contracts, were themselves "assets" of the funds, and this gave rise to uncertainty over their own valuation.[213] Fund sponsors argued that the fair value of the wrap contracts simply was equal to the amount needed to close the gap between the market value of the funds' portfolio and a $1 NAV on any given day. The valuation issue remained unresolved, as the SEC staff apparently was unwilling to accept the industry's position for a stable value fund operating outside of the rules governing money market funds. Although the wrap contracts proved problematic because of these issues, revisions to Rule 2a-7 could, of course, clear the way for the use of insurance contracts by MMFs to maintain their stable NAVs.

A somewhat after-the-fact variation of private insurance is sponsor support for a troubled MMF. In response to the liquidity pressure faced by MMFs in 2008, a number of money market funds entered in capital support agreements with their fund sponsors.[214] In addition, many fund sponsors purchased securities from their MMFs in order to provide liquidity and avoid distressed sales.[215] These arrangements required exemptive relief from the SEC because sections 17(a)(1) and 17(d) of the Investment Company Act would otherwise prohibit these as transactions with affiliated persons. In the 2010 rule changes, the SEC amended Rule 17a-9 to increase the authority of fund sponsors (and other affiliated persons) to purchase distressed securities from the fund. Although these purchases had previously been restricted due to concerns that the sponsor would act opportunistically, the SEC addressed that concern by providing that the fund would claw back any express profit earned by the sponsor on the transaction.[216]

To a certain extent, fund sponsors are also subsidizing MMF NAVs by waiving management fees.[217] Because current interest rates on short term debt instruments are so low,

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[211]See, e.g., Fund Action, SEC Investigates Stable Value Funds, March 24, 2003, avail. at http://www.fundaction.com/article.aspx?articleID=1239377 (describing use of wrap contracts to maintain stable NAV).

[212] See Hoffman, supra note __ (describing increasing offerings of stable value funds but warning of high fees).

[213]See Jacobson, supra note __ (describing SEC inquiries regarding accounting and valuation issues).

[214]See, e.g., Northwestern Mutual Series Fund (Oct. 22, 2008). See also SEI Daily Income Trust-Prime Obligation Fund (November 9, 2007) ("SEI Daily Income Trust"); See also HSBC Investor Funds-HSBC Investor Money Market Fund (Jan. 18, 2008).

[215]See, e.g., Russell Investment Co. (Oct. 20, 2008).

[216] See Rule 17a-9(b)(2) (providing that money market fund can claw back the difference between the price paid by the sponsor for the security and any higher price at which the sponsor sells the security).

[217] Chuck Jaffe, Money Fund Yields So Low That Banks Are Better Idea, BOSTON HERALD, Jan. 10, 2010, at 23 (reporting that Charles Schwab "is losing over $100 million per quarter in revenues because it is waiving fees so that its money funds stay positive")

and because MMFs face various administrative costs, in the absence of such waivers, some funds would experience negative returns. The flip side of these subsidies offers another potential source of protection against runs – during periods in which interest rates are higher, funds could reduce the yields paid to investors and use the difference to fund "reserve" accounts that would provide buffer in the event of a liquidity crisis. A proposal along these lines has been put forward by several mutual fund management funds, led by Fidelity.[218] In essence, this type of reserve fund would be equivalent to the private insurance option described above, except that the costs of the insurance would be borne by fund investors rather than the sponsor.

Because of the differences between retail and institutional money market funds, including the risk of investor confusion, the susceptibility of the funds to rapid investor withdrawals and so forth, some commentators have argued that the industry be formally segmented through regulation. Jeff Gordon, for example, argues that retail funds serve as a substitute for banks and should therefore be regulated like banks, with government insurance.[219] Gordon has also proposed that institutional funds should involve a layer of subordinated debt to increase liquidity.[220]

The economic effect of a layer of subordinated debt would be to eliminate fund investors' entitlement to receive the full $1 share value in cash.[221] The value of the debt portion of the investment would be unlikely to fluctuate substantially, but it would reduce pressure on the fund to convert the full value of distressed securities in its portfolio into cash. A variation on this proposal would be to authorize funds to substitute in-kind redemptions for cash withdrawals. The SEC requested comment on allowing or requiring in kind redemptions for large redemption requests in its 2009 release.[222] As the SEC explained in its proposal, allowing in kind redemptions would similarly offer protection from the need to sell securities into a distressed market in order to generate cash to satisfy redemption requests.

A related proposal was recently proposed on the Harvard Law School corporate governance blog by David Geffen and Joseph R. Fleming of Dechert. Geffen and Fleming suggest a regulatory change that would allow funds, during a period of illiquidity, to impose a fee on large redemptions.[223] The rationale is that the fee would cause the redeeming investor to internalize the cost of its redemption on the fund and the other shareholders. The result would be

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[218] Written Testimony of Scott C. Goebel, Senior Vice President and General Counsel, Fidelity Management & Research Co., before the House Financial Services Subcom. on Capital Markets and Government Sponsored Entities (June 24, 2011).
[219] Gordon, supra note __ (WSJ).
[220] Id.
[221] Some form of subordinated debt has been widely proposed as a means of address the financial stability of banks. See, e.g., John C. Coffee, Jr., Bail-ins versus Bail-outs: Using Contingent Capital To Mitigate Systemic Risk, Oct. 22, 2010, http://ssrn.com/abstract=1675015 (describing various proposed forms of contingent capital).
[222] MMF Proposing Release, supra note __, at 108.
[223] Geffen & Fleming, *supra*, note __.

to reduce the incentive of investors to "run" from a fund and to eliminate the ability of a redeeming shareholder to profit from a small disparity between the fund's NAV and the $1/share price. It is worth noting that any regulatory change based on redemption size would have the practical effect of focusing primarily on institutional investors while eliminating the need formally to distinguish between retail and institutional funds.

B. A Proportional Fix for the MMF Market

For the most part, existing reform proposals attempt to enhance the safety of MMFs by providing various forms of capital or liquidity back-stops. Although we do not dispute the potential value of these reforms, we argue that the track record of MMFs suggest they are largely unwarranted. More importantly, the proposals present potential costs, including monetary costs as well potential moral hazard problems that have not been fully addressed by their proponents. Given the social utility of MMFs and the concerns raised in this article about a floating NAV, is there a better approach?

This article argues that proportional improvements to the regulation of MMFs are available to respond to the problems identified by the 2008 Financial Crisis and the failure of the RPF. We identify three such improvements: (1) clarifying the conditions under which a MMF may continue to use a stable $1 NAV, (2) providing standards for an MMF board's suspension of redemptions, and (3) enhancing disclosure about the risk an MMF might break the buck.

1. Conditions for Use of a Stable $1 NAV

Somewhat surprisingly, Rule 2a-7, in its existing form, does not provide explicit consequences for a fund if its portfolio's market value deviates by more than ½ of 1% from a stable $1 NAV per share. Certainly, the rule is hard and fast when an MMF's portfolio fails to comply with the required standards on maturity, quality, diversification, or liquidity. In such circumstances, a fund is barred from holding itself out as a money market fund and consequently must use a floating NAV as does any other bond fund.[224]

The rule has no comparable, automatic disqualification when an MMF fails to maintain its portfolio's market value at $.995 cents per share or higher. Rather than requiring the fund to use a floating NAV and to cease calling itself a money market fund, the rule does not mandate that any specific action be taken. Instead, the rule delegates the decision of what to do next, stating in circular fashion that "the board of directors shall promptly consider what action, if any, should be initiated by the board of directors."[225] Indeed, the rule arguably does not require that the board take any formal action – the board might simply consider taking an action, such as changing to a floating NAV, and then decide not to do so.

[224]Rule 2a-7(b), 17 C.F.R. § 270.2a-7(b).
[225] Rule 2a-7(c)(8)(ii)(B), 17 C.F.R. § 270.2a-7(c)(8)(ii)(B).

The rule contains a companion provision that is triggered when an MMF's board "believes the extent of any deviation from the money market fund's amortized cost price per share may result in material dilution or other unfair results to investors or existing shareholders…."[226] Under these circumstances, the board must not only consider taking action, it must actually do something to solve or mitigate the problem.[227] There are three difficulties here. First, this provision, read together with the preceding one, could be seen to imply that a deviation just over ½ of 1% might not lead to material dilution; rather, some unspecified, but larger, deviation might be necessary before such dilution occurs. If the case were otherwise, why not write the rule simply to compel action by a fund board whenever deviation greater than ½ of 1% occurs? Second, the rule does not compel the board to cause the fund to change to a floating NAV or take any other specific action if a fund adviser fails promptly to provide sufficient capital support to the fund.

In proposing Rule 2a-7 in 1982, the SEC sought to include, in its accompanying release, the clarity that the rule itself lacked. First, the SEC said "under all but highly unusual circumstances, the [SEC] would find that a deviation exceeding ½ of 1 percent may result in material dilution or other unfair results to shareholders."[228] Therefore, the SEC reasoned, it is "unlikely" that an MMF's board, in these circumstances, could properly conclude that no action was necessary.[229] Second, the SEC in its release suggested a number of actions that a fund board could take, such as reducing dividends, selling some holdings to capture capital gains or shorten the fund's weighted average maturity, or redeeming shares in kind. The SEC made clear that this was a non-exhaustive list.[230]

Upon adopting Rule 2a-7 in 1983, the SEC repeated its explanatory statements and attempted to provide further guidance regarding the responsibilities of the board.[231] The SEC stated that "the board should not have unfettered discretion" but does have "considerable discretion" in considering what action might be taken where the market value of an MMF's portfolio drops below $.995 per share.[232] The SEC also emphasized the importance of the rule's condition that an MMF can use a stable NAV "only so long as the board of directors believes that it fairly reflects the market-based net asset value per share."[233]

We believe the continued ambiguity in Rule 2a-7 is undesirable. In particular, the ambiguity about the consequences of "breaking the buck" creates uncertainty in the market, increasing the possibility of a run. This ambiguity is easily addressed, without substantially changing the

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[226] Rule 2a-7(c)(8)(ii)(C), 17 C.F.R. § 270.2a-7(c)(8)(ii)(C) .
[227] The rule provides that the board "shall cause the fund to take such action as it deems appropriate to eliminate or reduce to the extent reasonably practicable such dilution or unfair results." Id.
[228] 1982 Proposing Release, supra note __ at text accompanying n. 39.
[229] Id.
[230] Id at text accompanying n. 40.
[231] 1983 Adopting Release, supra note __ at text accompanying notes 49 & 50.
[232] Id. at n. 49
[233] Rule 2a-7(c)(1), formerly Rule 2a-7(a)(1).

economic terms under which MMFs operate. We propose that Rule 2a-7 be amended to require that once a fund's "shadow price" per share deviates by more than ½ of 1% from $1 per share, the range permitted by the rule, the fund's board must promptly take action. Specifically, our proposal would require the board to decide upon one of three available courses of action: (1) obtaining from the fund's adviser or other source an immediate infusion of capital to restore the $1 NAV, (2) closing and liquidating the fund or (3) operating the fund with a floating NAV.

As to the first course, the rule should require that the infusion of resources be made within one business day after a fund has broken the buck. Our proposal would allow the funds to come from any source: a capital contribution or purchase of portfolio investments by the fund's adviser;[234] a payment under the fund's separate insurance policy or an industry-wide insurance plan; proceeds from the sale of portfolio investments to an industry-sponsored liquidity fund; or a release of funds from a capital account of the fund that is subordinated to the claims of the fund's public shareholders. In essence, this would allow funds to experiment with various forms of economic support and enable investors to indicate, through market transactions, the type of support they preferred and the price, if any, that they were willing to pay for such support.

We propose that the board be required to initiate either of the two other permitted alternatives within two business days after the MMF breaks the buck. The purpose of this delay would be to give the fund an opportunity to attempt to obtain additional capital before resorting to liquidation or a floating NAV. Whatever course is pursued, the fund's board would make the critical judgment, subject to the legal standard that this judgment must be exercised in the best interests of the fund's shareholders.

In contrast to the existing regulatory structure, our proposal provides needed clarity on the circumstances under which board action is required, and the options available to the board in taking that action. The proposal also offers the board the ability to engage in a proportionate response. MMFs that are able to maintain the stability of their portfolio value can continue to offer their investors amortized cost accounting and a stable NAV. MMFs can adopt measures ex ante that enhance the stability of their NAV. Similarly MMFs that experience a minor deviation from the regulatory requirements are given the option of obtaining the necessary capital to address the problem – from a variety of sources – without the draconian requirement of formally "breaking the buck."

Our proposal also responds to critics' arguments in favor of a floating NAV by allowing the board to convert to a floating NAV as an alternative. We note that such a conversion should be relatively straightforward in light of the requirement imposed by the 2010 rule changes that

[234] If the adviser steps in with a capital contribution, it would not need to bring the fund's market value to exactly $1 per share, but the rule should require some cushion above the regulatory minimum, such as the amount needed to bring market value to $.9975 per share.

funds maintain the ability to convert immediately to a floating NAV.[235] Because we do not believe that many funds will be able to operate successfully upon such a conversion, we believe that liquidation is the more likely outcome if a fund experiences a significant drop in asset value that cannot be mended through a capital infusion. Unlike proposals that mandate a floating NAV, however, our proposal, by giving boards the choice, retains the potential for the market to demonstrate that floating NAV MMFs are a viable economic option.

We believe, however, that the lesson of the RPF failure is not the need for a floating NAV. Rather, the RPF crisis highlighted the absence of adequate liquidation procedures for MMFs, an absence that has not been addressed through SEC rule-making or industry proposals. We address this problem in the following subsection.

2. Suspension of Redemptions by a MMF's Board

Our second proposal would establish limits on the power of a MMF's board to suspend redemptions when a fund is put into liquidation. As discussed above, the SEC's 2010 rule-making dramatically changed the ground rules for the suspension of redemptions. Prior to 2010, MMFs, like all other mutual funds, were bound by the ICA provisions that, as a general matter, granted all shareholders the right to redeem their shares at any time and that required funds to make payment within seven days following the exercise of that redemption right. The ICA provided very limited and temporary exceptions to this redemption requirement absent an SEC order permitting such suspension.[236] Rule 22e-3,[237] adopted as part of the 2010 amendments, granted an MMF board new power to suspend redemptions once the fund is placed in liquidation. The rule places no restrictions on how long this suspension may continue or the circumstances under which it is justified. The ICA still provides that, for the SEC to suspend redemptions, it must bring an administrative proceeding subject to the notice and hearing requirements of the ICA. These limits on the SEC's suspension authority contrast sharply with the board's new suspension power.

We propose that Rule 22e-3 be amended in two ways. First, the board's power to suspend redemptions completely would be limited to two business days – the day when the fund is put into liquidation and the following business day. In light of the new safety and liquidity requirements adopted in 2010, there should be no need to maintain an absolute prohibition on redemptions beyond a two day time frame that enables the board to assess the financial condition of the fund and the marketability of fund assets. If a fund board decides to keep an MMF in operation by converting to a floating NAV, rather than to place the fund into liquidation, the

[235] Rule 2a-7(c)(13), 17 C.F.R. § 270.2a-7(c)(13). During the financial crisis in 2008, two non-U.S. money market funds (domiciled in Ireland) that had maintained a stable NAV converted to a floating NAV. *See* MMWG, *supra* note __, at 185, n.8.
[236] ICA, § 22(e). Under Section 22(e), these exceptions are triggered upon an unanticipated closing of the New York Stock Exchange or an emergency that renders reasonably impracticable the ability of a fund to sell portfolio holdings or value its net assets.
[237] 17 C.F.R. § 270.22e-3.

board would have no power to suspend redemptions unless it obtains a special exemption from the SEC. This comports with the SEC's recent revision of Rule 2a-7 that requires all MMFs to have systems in place to support a conversion to a floating NAV, [238] as well as the revisions mandating levels of one-day and seven-day liquidity.[239]

Second, after the close of the second full business day following the start of a fund's liquidation, the power of an MMF's board to suspend redemptions would be limited. For the next three business days, a board would be permitted to suspend redemptions not to exceed 50% of a shareholder's interest in the fund. After the fifth business day, this suspension power would be further limited to no more than 10% of a shareholder's holdings in the fund. Stated otherwise, by the end of five business days after an MMF breaks the buck, a shareholder should be able to redeem up to 90% of his or her shares. In the interim, the MMF's board will have had the opportunity to authorize creation of a reserve account within the fund, setting aside an appropriate amount to pay various expenses (auditing, legal and administrative) of the liquidation. The fund's floating NAV per share, of course, will reflect a calculation of net assets reduced by the amount of the reserve created to meet anticipated liquidation expenses.

Our approach should mitigate any collective action or "prisoner's dilemma" problems. First, a fund in liquidation will have a floating NAV because, by definition, it is unable to maintain a stable $1 per share price. Because the fund's board will have been able to create a reserve account in the fund, shareholders redeeming early will not be leaving liquidation expenses to be borne by those shareholders who choose to stay or redeem later. The reserve account should prevent this, so long as the fund's board exercises reasonable care in setting the reserve at an appropriate level.

The board would be authorized to continue to suspend redemptions as to the remaining 10% of the fund's value until the liquidation procedure is completed, at which time shareholders would receive pro rata distributions on the remaining 10% of their shares. The rule would enable shareholders to receive, at this time, the full remainder of the fund's asset value. As a result of this procedure, if the liquidation generated a surplus beyond the amount held in the reserve account, investors who did not rush to redeem immediately when the fund broke the buck might receive a higher payment than early exiters. Accordingly, by eliminating the one-sided pay-off associated with early redemption of shares from a troubled fund, our proposal might reduce the pressure that induces a run.

There are safety valves to our proposal. If the SEC was concerned that the MMF board was jeopardizing the fair and equitable treatment of shareholders, it could, as it did in the case of RPF, bring a proceeding in federal district court under Section 2.[240] A fund board could also seek an exemptive order from the SEC if it determined that it was necessary to retain a higher

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[238] Rule 2a-7(c)(13), 17 C.F.R. §270.2a-7(c)(13).
[239] See notes __ through __, supra and accompany text (describing these requirements).
[240] 15 U.S.C. § 80a-2.

level of reserves than that permitted by the rule. This exemption might be necessary if unusual market conditions created particular difficulty for the fund in selling its portfolio assets. The advantage however, of our rule is that it creates a preemption in favor of substantial shareholder liquidity, requiring the SEC or the fund board to justify any greater limits on shareholder redemption rights.

3. Enhanced Disclosure

Our third proposal would revise the cautionary language now found in MMF prospectuses under the "Principal Investment Risks" section.[241] The language that has long been required warns investors that shares in MMFs are not federally insured or guaranteed and that "although the fund seeks to preserve the value of your investment at $1.00 per share, it is possible to lose money by investing in the fund."[242] This language neither explains the circumstances under which an MMF can lose its $1.00 share value or the consequences if a fund "breaks the buck." We suggest adding the following language:

"The fund is able to maintain a price of $1.00 for each of its shares because under normal circumstances the fund purchases short-term investments that maintain their market value and the fund receives full and timely payment of principal and interest on these investments. From time to time, an investment held by the fund might lose value, for example, because of increased credit risk or an actual default by the issuer in making a timely payment. If this were to occur for any significant investment held by the fund or for a number of smaller investments, the fund might not be able to maintain a price of $1.00 per share. In these circumstances, the price of the fund's shares will fall below $1.00 per share and the exact price will vary daily based on the market values of the fund's investments. Further, if the fund's shares fall below a value of $1.00 per share, the fund's board of directors may decide to liquidate the fund."

As noted above, we are agnostic as to whether commentators' claims about investor expectations are well founded. We note that the run on mutual funds in 2008 came largely from institutional, not retail investors. These were the most informed investors in terms of understanding the conditional nature of an MMF's stable $1 NAV. We also recognize that any mandatory disclosure is imperfect and will not succeed in promoting understanding among all. Additional criticisms based on behavioral theory can be made. Nonetheless, where improvements can be achieved in disclosure, the marginal benefits would seem to justify that the improvements be made. The disclosure we recommend should accomplish this purpose.

Conclusion

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[241]Form N-1A, 17 CFR 274.11A, is the registration form used by mutual funds to register under the ICA and to sell their shares under the Securities Act of 1933. See Registration Form Used by Open-End Management Investment Companies, ICA Rel. No. 23064 (June 1, 1998), www.sec.gov/rules/final/33-7512r.htm (describing use of the form).

[242] Form N-1A, Item 4(b)(1)(ii), 17 CFR 274.11A.

The regulatory reforms spawned by the Financial Crisis of 2008 are already extensive, and the process of studying systemic failures and designing further regulatory revisions and structural changes is likely to continue for a considerable period of time. Regulators should, however, focus primarily on banks and other financial firms that were the causal actors. The SEC's pre-existing regulatory framework enabled MMFs, and mutual funds generally, to weather the financial storm far better than other financial institutions, notably banks. The SEC's rule changes in 2010 heighten the safety and liquidity criteria still further. Eliminating the stable NAV, and thereby depriving MMFs of their continuing viability, is misguided.

This article has demonstrated that mandating a floating NAV for MMFs is unlikely to reduce systemic risk or eliminate the possibility of a run. At the same time, the mandate would remove the central attribute of MMFs that makes them attractive to investors and that has facilitated their dramatic growth and resulting importance in serving as a source of short term credit. Critically, we argue that the systemic risk associated with MMFs is generated by investor concerns about liquidity. As a result, we propose narrowly tailored reforms designed to enhance liquidity through predictable and orderly procedures in circumstances in which a fund suffers a significant loss in value.