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November 27, 2012

The Honorable Timothy Geithner
United States Secretary of the Treasury
Department of the Treasury
1500 Pennsylvania Avenue, N.W.
Washington, D.C. 20220

Re: Proposed Recommendations Regarding Money Market Mutual Fund Reform
Docket Number FSOC-2012-0003

Dear Secretary Geithner:

Enclosed for review by the Financial Stability Oversight Council is my recent paper, *Money Market Funds: Vital Source of Systemic Stability*. I hope you will find it useful as you consider whether to propose the additional standards for money market funds (MMFs) described in the Council's *Proposed Recommendations Regarding Money Market Mutual Fund Reform*.

I discuss many of the issues raised in the Council's Release in detail in my paper. My principal conclusion is that MMFs are a source of stability in our financial system. They function as an effective means by which liquidity can be channeled into investment. Although they play a more limited role in the economy than bank transaction accounts, they serve an important cash management function, utilizing excess cash for individuals, corporate and governmental treasurers, and other institutional investors such as money managers, brokers, trustees, and others who need stability and predictability for short periods of time.

In contrast, commercial banks are inherently unstable and require Government support in the form of federally sponsored deposit insurance, access to the Federal Reserve discount window, and periodic "bailouts." Their instability results from the significant maturity mismatch between banks' assets and their liabilities, the fact that their assets are usually illiquid versus their highly liquid liabilities, and that their assets are opaque and very difficult to monitor. This leaves the monitoring function primarily to bank regulators, and, unfortunately, banks nonetheless failed by the hundreds during the most recent crisis, and by the thousands in prior years.

Money market funds, by comparison, are very stable – although of course not perfectly stable. Operating under the Securities and Exchange Commission's Rule 2a-7 restraints, they much better match the term structure and the liquidity characteristics of their assets and liabilities. They are highly transparent and certainly more so following recent disclosure enhancements. And, by regulation, they are investing in assets that are less volatile, more liquid, less opaque and less difficult to value than bank assets. Both the SEC and investors view MMF portfolio holdings in detail in reports filed with the SEC – to a level of detail that includes each security or other instrument held by a MMF. MMF investors are made aware that theirs is an unguaranteed investment and that they bear the risk of loss. The high level of detailed disclosure and the prospect of investment loss provides tools and incentives for MMF investors to impose market discipline that does not exist on the part of bank depositors.

The proposals currently under review by the Council are similar to those previously under review by the SEC, and I address them generally in my paper. Specifically, the Council has proposed to recommend that the SEC require MMFs to have a floating net asset value (“NAV”) instead of a stable NAV, adopt capital requirements with certain other limitations, or impose minimum balance at risk requirements for MMFs, also together with capital. I am unaware of any data to support the proposition that any of these structural changes would make MMFs less at risk of sustained redemptions in a financial crisis, and I presume the Council’s task will be to determine whether there is evidence that any of the proposals, in fact, would accomplish its purpose. In its review, I would strongly urge the Council to give serious study to the potential impact that any of measures could have in destabilizing the financial system by weakening the role of MMFs.

For example, a “floating” NAV would reduce investor demand for MMFs, because of operational, tax, accounting, or legal impediments, or because of convenience and efficiency considerations. Likewise, a holdback or minimum balance requirement will deter investors for many of the same reasons. The increased costs that would be imposed by a capital requirement will have to be borne by someone – and either will reduce investor demand or deter MMF sponsors. While I have not studied the Council’s release in detail, it appears that the drafters concede that the impact of these changes very well could be to reduce MMF assets, but they discount the economic impact of a smaller MMF industry by concluding that MMF’s role in providing credit to the economy is relatively small, and the increased cost of short-term financing by issuers whose commercial paper or other debt instruments MMFs purchase likewise would be relatively small.

The data supporting these conclusions obviously needs to be scrutinized and tested, and I hope the Council will do so. In addition, the Council also must consider the potential impact of a diminished MMF industry on increasing systemic risk – the Council’s core concern. If MMFs are not available or their role is significantly reduced, investors will seek other places to place cash, such as less transparent, less regulated private funds, individually managed accounts, or short-term investment funds. It also seems likely that investors would increase their reliance on banks. Yet history has shown that MMFs are more stable than banks, even without the explicit government support that banks receive. As noted above, banks have proved to be less stable due to the maturity mismatch of their assets and liabilities, the illiquid nature of their assets, and their opacity to investors. A reduced MMF industry may lead to the flow of large amounts of cash into this problematic system, especially through the largest banks, and increase pressure on the FDIC.

I understand that a key goal of government policy under the Dodd-Frank Act was to end government bailouts and reduce the risk posed by “too big to fail” systemically important financial institutions. Any action by the Council (or the SEC pursuant to its recommendation) that would cause the largest banks to grow even larger would seem fundamentally at odds with the purpose of the statute that created the Council, because it would add, and not reduce, risk to the financial system. If the Council’s aim is to reduce systemic risk, reduce the chances of other bailouts, and at the same time ensure the availability of short-term financing for borrowers that seek an alternative to banks, then the Council should carefully evaluate how its proposed recommendations would affect the flow of short-term cash investments from MMFs and into the banking system, and the impact of such a shift on systemic risk.

I hope that the Council will find the enclosed paper helpful as it considers whether the proposed recommendations are warranted.

Sincerely,



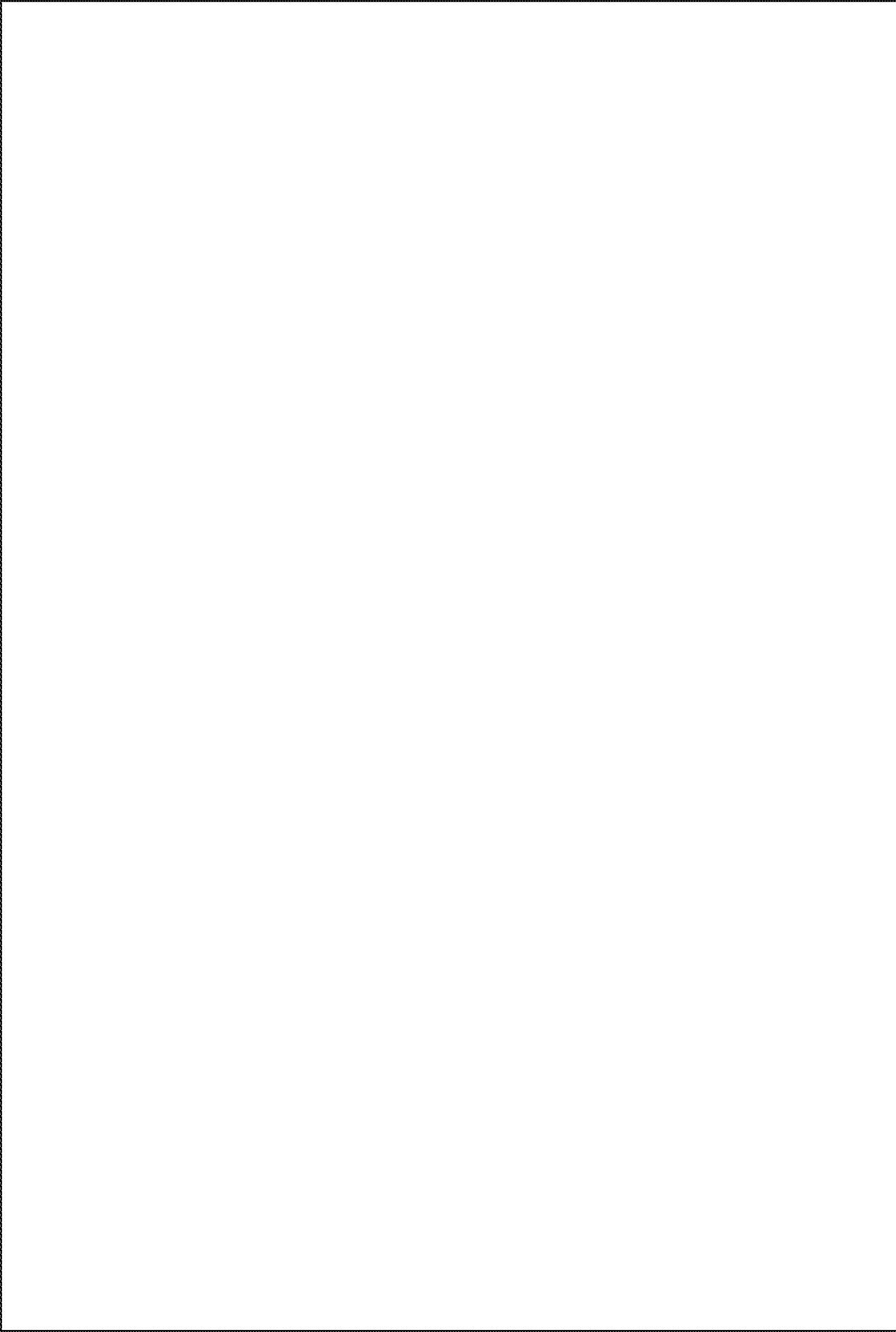
Jonathan R. Macey

cc: Ben S. Bernanke, Chairman of the Board of Governors of the Federal Reserve System

Richard Cordray, Director of the Consumer Financial Protection Bureau
Edward DeMarco, Acting Director of the Federal Housing Finance Agency
Gary Gensler, Chairman of the Commodity Futures Trading Commission
Martin Gruenberg, Acting Chairman of the Federal Deposit Insurance Corporation
Debbie Matz, Chairman of the National Credit Union Administration
Mary Schapiro, Chairman of the Securities and Exchange Commission
Thomas Curry, Comptroller of the Currency
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Michael McRaith, Director of the Federal Insurance Office
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Craig Lewis, Director, SEC Division of Risk, Strategy, and Financial Innovation
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MONEY MARKET FUNDS: VITAL SOURCE OF SYSTEMIC STABILITY

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MONEY MARKET FUNDS: VITAL SOURCE OF SYSTEMIC STABILITY

Jonathan R. Macey*

I. INTRODUCTION

Money Market Funds (MMFs) are one of the few investment vehicles in the history of finance that permit assets to be deployed in the economy and still remain stable without implicit or explicit government support. As a vital means through which liquidity may be efficiently channeled into investment, MMFs have served as a stunning success story spanning the past four decades. These vehicles have provided corporate and governmental treasurers, money managers, brokers, trustees, escrow agents, governmental treasurers, and retail investors with modest returns, liquidity, and stability that banks have been unable to match. As such, MMFs have grown to become a stabilizing cornerstone of our economy.

Throughout the recent Financial Crisis, and peaking shortly after the collapse of Lehman Brothers Holdings, Inc. (“Lehman”) in September 2008, there was a flight to quality that affected all sorts of financial institutions and investment classes. As part of this flight to quality, many prime money market fund investors rushed to redeem their shares and move funds into government securities and government money market funds.¹ This influx of sellers caused concern that some MMFs would drop below their target price of \$1.00 per share – an extremely rare, and nerve rattling, occurrence known as “breaking the buck.” One MMF did – the Reserve Primary Fund. Though oft cited by regulators, the story of the Reserve Primary Fund was more an example of that fund’s unique circumstances and management failures than evidence of industry-wide vulnerability.²

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1 “Prime” money market funds invest in high-quality, short term debt instruments issued by companies and state, local and federal government entities. “Government” money market funds invest only in government securities, such as Treasuries. As discussed further below, in response to the issues that affected money market mutual funds in late 2008 after Lehman Brothers’ bankruptcy filing, the SEC made significant changes to the regulation of such funds. See Securities And Exchange Commission, Money Market Fund Reform, Inv. Co. Act. Rel. no. 29,132 (Feb. 23, 2010) hereinafter “SEC Rel. No. 29132.” (available at <http://www.sec.gov/rules/final/2010/ic-29132.pdf>); see also Benjamin J. Haskin, Margery K. Neale and Ryan P. Brizek, SEC Adopts Money Market Fund Reforms, The Metropolitan Corporate Counsel, Inc., (April 5, 2010), <http://www.metrocorpcounsel.com/current.php?art-Type=view&artMonth=November&artYear=2010&EntryNo=10803>. Report of the President’s Working Group on Financial Markets, Money Market Fund Reform Options (Oct. 2010) [hereinafter “PWG Report”] <http://www.treasury.gov/press-center/press-releases/Pages/tg18.aspx>.

2 The Reserve Fund had overinvested in Lehman debt and its managers then allegedly “falsely claimed they would prop up the fund’s \$1.00 net asset value even though they ‘secretly harbored’ doubts.” While other funds received sponsor support and did not break the buck, the Reserve Fund was unique and now faces an SEC civil lawsuit. Kirsten Grind, Broken Fund Shifts the Blame, Wall Street Journal (Aug. 16, 2012) at http://professional.wsj.com/article/SB1000087239639044233104577593550400166844.html?mod=djemEditorialPage_b&mg=reno-wsj. The SEC and Federal Reserve Bank of New York had personnel physically inside Lehman’s offices and reporting to Washington in March-September of 2008.

Though this marked only the second time in history that an MMF's share price fell below \$1.00 since the product's creation in 1971,³ the pressure on prime MMFs during "Lehman Week" provoked the SEC to enhance its regulations of MMFs in rules adopted in 2010.⁴ Not satisfied with the SEC's round of enhancements to Rule 2a-7 in 2010, the SEC Chairman has expressed support for three additional restrictions on MMFs:

1. Eliminating the current stable net asset value (NAV);
2. Imposing capital requirements; and
3. Imposing a holdback or minimum balance requirement.

Such measures have been advocated as recently as September 2012 by Timothy Geithner.⁵ This study concludes that each of these advocated reforms are misguided and threaten to destabilize the financial system. Specifically, each change would decrease efficiency, dampen competition, and hinder capital formation.⁶

This paper provides an analysis of MMFs to show that MMFs significantly reduce systemic risk. The contemplated changes to the way that MMFs are currently regulated would inevitably increase systemic risk by weakening the role of MMFs in the financial markets and by increasing market participants' reliance on commercial banks.⁷ MMFs would no longer serve as a viable alternative; this would dampen competition and increase the cost of short-term capital funding. The "likely economic consequences" of the advocated changes would be detrimental to the SEC's stated objectives.⁸ In fact, the weight of the evidence suggests that adoption of these changes would be arbitrary and capricious.

This paper reviews the role served by MMFs in the financial markets and questions the assertion that MMFs pose systemic risks to the financial system. It starts by demonstrating the central role that MMFs have come to play in our financial system. Subsequently, the paper explains the operation of these funds in layman's terms and compares them to bank instruments. This paper next considers the role of MMFs in the recent financial crisis. This paper shows that

³ The first occurrence, described below, was in 1994 when concerns over exposures to interest rate derivatives led investors to withdraw from a particular fund that had taken excessive risk.

⁴ SEC Rel. No. 29132 *supra* n. 1.

⁵ Department of Treasury Letter to Members of the Financial Stability Oversight Council (Sept. 27, 2012), available at <http://www.treasury.gov/connect/blog/Documents/Sec.Geithner.Letter.To.FSOC.pdf>.

⁶ Statutes applicable to SEC rulemakings mandate that the SEC consider the impact of proposed regulations on efficiency, competition, and capital formation.

⁷ Jonathan Macey, Reducing Systemic Risk The Role of Money Market Mutual Funds as Substitutes for Federally Insured Bank Deposits, 17 Stan. J.L. Bus. & Fin. 131, 135 (2011).

⁸ See SEC Memorandum to Staff of the Rulewriting Divisions and Offices from the Division of Risk, Strategy, and Financial Innovation Overview and Office of the General Counsel (Mar. 16, 2012) available at http://www.sec.gov/divisions/riskfin/rsfi_guidance_econ_analy_secrulemaking.pdf. [hereinafter SEC Mar. 2012 Memo]. As of the date of this Paper, it appears that the majority of SEC Commissioners have, at least initially, resisted such changes, but other regulators are continuing to press for their implementation.

the financial crisis was neither caused nor exacerbated by MMFs, and describes advantages and stability that these funds provide investors. Finally, this paper reviews the current system of regulation of MMFs and further changes that are under consideration, and argues that over-regulation of MMFs may destroy their utility and increase systemic risk.⁹

II. MONEY MARKET FUNDS

MMFs are regulated by the SEC under the Investment Company Act of 1940. First launched in 1971, MMFs were created as a convenient alternative to the direct investment of temporary cash balances. As such, they invest in short-term “money market” instruments such as Treasuries, commercial paper, and negotiable CDs, thereby allowing their customers to enjoy returns while still maintaining liquidity. Investors are able to gain access to their investment by “redeeming” their shares, i.e., simply demanding to receive their cash equivalent.¹⁰

Unlike other mutual funds, money market mutual funds were better able to maintain a stable NAV of \$1.00 per share. MMFs have accomplished this stability by not only minimizing their risk exposure but also by buying only short-term debt securities from financially stable issuers who pose little risk of default prior to maturation.¹¹ In this way, MMFs provide investors with both safety and liquidity, while still seeking out higher returns than those offered by bank interest rates.

Supportive of radical, and likely fatal, regulatory changes to the MMF industry, Mary Schapiro, the Chairman of the SEC, has attempted to bolster the fallacious argument that MMFs are unstable by erroneously asserting that MMFs have faltered and found themselves in need of sponsor support on “more than 300 occasions.”¹² Specifically, Ms. Schapiro asserts that:

When, despite … risk-limiting provisions, money market fund assets have lost value, fund “sponsors” (the asset managers – and their corporate parents – who offer and manage these funds) have used their own capital to absorb losses or protect their funds from breaking the buck. Based on an SEC staff review, sponsors have voluntarily provided support to money market funds on more than 300 occasions since they were first offered in the 1970s.¹³

⁹ Macey, *supra* n. 7, at 132-3.

¹⁰ Macey, *supra* n. 7, at 134.

¹¹ *Id.* at 135.

¹² Mary Schapiro, Testimony Before the Committee on Banking, Housing, and Urban Affairs of the United States Senate on “Perspectives on Money Market Mutual Fund Reforms” (June 21, 2012) at <http://www.sec.gov/news/testimony/2012/ts062112mls.htm>.

¹³ *Id.*

Upon examination, this assertion that 300 MMFs were bailed out by their sponsors turns out to be untrue. The data actually shows, in fact, that at least 20% of the funds listed by the SEC as “receiving sponsor support” never actually received any.¹⁴ Another 71% of the funds listed did not need support to avoid breaking the buck. In all, after taking into account all of the various errors in the Chair’s analysis, over 91% of the funds on the list (286 of the 313 funds) either did not receive support or were not “rescued” insofar as they would not necessarily have broken a dollar without the sponsor’s support.¹⁵ Thus, receipt of sponsor support does not necessarily mean that a fund is in distress. It should also be noted that virtually all of the cited instances of sponsor support occurred before the SEC’s 2010 amendments to its rules governing money market funds which strengthened the liquidity and credit quality of MMF portfolios.

Moreover, it is important that the handful of occasions in which sponsor support is provided not be misconstrued from a policy perspective. Forms of sponsor support for MMFs include purchasing defaulted or devalued securities out of a fund at par or amortized cost, providing a capital support agreement for the fund, and sponsor-purchased letters of credit for the fund.¹⁶ No good deed goes unpunished, however, and the SEC Chair has indicated – erroneously – that this sort of financial support is a sign of weakness. The notion that support is a sign of vulnerability rather than a sign of strength is wrong, both as a matter of logic and as a matter of established regulatory philosophy.¹⁷

A. Rule 2a-7: A Success Story in Flexible Regulation

A large number of factors can cause the NAV of even well-managed MMFs to fall below or rise above \$1.00. For example, a swift upward adjustment in interest rates could reduce the value of portfolio securities below the \$1.00 NAV level. Some classes of assets held by the fund could decline in value.¹⁸ As the average maturity of the securities in an MMF’s portfolio increases, so too does the possibility that the NAV will vary somewhat from \$1.00. Although most attention is paid to NAVs potentially falling below \$1.00, a fund’s NAV could also exceed \$1.00. Either way, the MMFs seek NAV stability.¹⁹

14 Federated’s Analysis: Misleading the Public Regarding the Risks of Money Market Funds – A Review of “Studies” of Sponsor Support for their Funds. Available at <http://www.federatedinvestors.com/FII/daf/pdf/literature/44949.pdf>.

15 *Id.*

16 Macey, *supra* n. 7, 134.

17 Division of Banking and Supervision and Regulation SR Letter 09-4, at 2 (February 24, 2009) (revised March 27, 2009). <http://www.federalreserve.gov/boarddocs/srletters/2009/SR0904.htm>.

18 As discussed in the context of the 2010 reforms *infra*.

19 Macey, *supra* n. 7, at 138.

Towards this end, MMFs employ the amortized cost method to account for the difference between the purchase price and the amount payable at maturity using amortization. “The basic premise underlying MMFs’ use of the amortized cost method of valuation is that high-quality, short-term debt securities held until maturity will eventually return to the amortized cost value and are not ordinarily expected to fluctuate significantly.”²⁰

Originally created in 1983, Rule 2a-7 permitted MMFs to employ this practice provided they invest in securities rated “high quality” by a major rating service, or otherwise determined by the board to be of comparable quality of such securities.²¹ Further, 2a-7 required that the MMFs “maintain a dollar-weighted average portfolio maturity appropriate to its objective of maintaining a stable net asset value per share,’ which could not exceed 120 days.” Individual portfolio securities must mature within 397 days.²² The rule was designed to enable MMFs to use amortized cost valuation if they strictly and precisely follow its risk-limiting regulations.

Prompted by the precipitous fall of Lehman in 2008²³ and the pro-regulatory environment that followed the unprecedented financial crisis, the SEC amended 2a-7 in 2010. While originally questioning whether to scrap the rule and instead require MMFs to offer and redeem their shares at a fluctuating NAV, the SEC ultimately decided to amend, rather than repeal, 2a-7. Despite the lingering debate over floating NAV, the 2010 amendments left the “principles of Rule 2a7 intact – strict limits on credit and interest rate risks coupled with a high degree of diversification.”²⁴

With the regulatory goal of making sure that the term “money market mutual fund” retains its meaning for investors, the SEC in 2010 imposed a variety of additional regulatory requirements on any mutual fund that “hold[s] itself out to investors as a money market fund or equivalent.”²⁵ The goal of the reforms was to directly address the issue that had arisen in 2008: liquidity.

Under the amended rules, funds may only refer to themselves as MMFs if, among other requirements, they: (1) invest only in securities that the fund’s board of directors determines present minimal credit risks; (2) invest only in securities that are rated “in one of the two highest short term rating categories”

²⁰ Macey, *supra* n. 7, at 164.

²¹ Investment Company Institute, Report of the Money Market Working Group, (Mar. 17, 2009), Appendix E at www.ici.org/pdf/prr_09_mmwg.pdf [hereinafter ICI Report]; Stephen Keen, 2010 Money Market Fund Regulatory Reforms, 43 Rev. of Sec. & Com. Reg. 191, 191 (2010) http://www.rscrpubs.com/Cover_Keen_RSCR_8-25-10.pdf.

²² *Id.* at E-150, E-156.

²³ The failure of Lehman Brothers in September 2008 was precipitous from the markets’ perspective, but had been anticipated by the federal government for at least six months (but the full extent of Lehman’s financial difficulties was not disclosed to the markets prior to its bankruptcy). See Report of Anton R. Valukas, Examiner at 8, 609, *In re Lehman Brothers Holdings Inc.*, No. 08-13555 (Bankr. S.D.N.Y.), <http://jenner.com/lehman>.

²⁴ Keen, *supra* n. 21, at 191.

²⁵ 17 C.F.R. § 270.2a-7.

of Nationally Recognized Statistical Rating Organizations (NRSROs) or others determined to be of comparable quality;²⁶ (3) invest only in securities that mature within 397 calendar days of the date they are purchased; and, (4) meet very strict liquidity and portfolio diversification requirements: a.) satisfying daily and/or weekly Liquid Asset standards whenever they acquire a security, b.) limiting illiquid securities (i.e., “securities that cannot be sold or disposed of in the ordinary course of business within seven calendar days at approximately the value ascribed to them by the [money market] fund”) holdings to 5%, and c.) on top of 10% daily and 30% weekly liquidity requirements, maintaining sufficient liquidity “to meet reasonably foreseeable shareholder redemptions.”²⁷ In practice, this has resulted in prime MMFs holding well over 40% of their portfolios in seven-day liquid assets, a percentage roughly triple the percentage redeemed from prime MMFs in the seven days after Lehman failed in September 2008.²⁸ The greatly enhanced liquidity required by the 2010 amendments allows MMFs to meet extraordinarily high levels of redemptions from internal portfolio cash without selling assets. This ability supports the premise behind the use of amortized cost accounting that portfolio assets will be held to maturity. This liquidity also enables MMFs to pay cash to redeeming investors even if the underlying money markets become illiquid.

Under the amended rule, an MMF using the “amortized cost method will be able to treat as liquid a security that the fund can sell at a price that deviates from the security’s amortized cost value, as long as the price approximates the market-based value that the fund has ascribed to the security for purposes of determining its shadow price.”²⁹

Moreover, MMFs are generally prohibited from investing more than 5% of their total assets in securities from any one issuer, and are prohibited from allocating more than 3% of fund assets to nongovernmental securities that are not in the highest rating category. Perhaps most critically, MMFs must have “a dollar-weighted average portfolio maturity appropriate to its objective of maintaining a stable net asset value per share” and in no event can an MMF have a dollar-weighted average maturity that exceeds 60 days.³⁰

26 *Id.*

27 See amended rule 2a-7(c)(5)(ii)-(iii). See also amended rule 2a-7(a)(8) (defining “daily liquid assets”); 2a-7(a)(32) (defining “weekly liquid assets”); (infra notes 229-243) and accompanying text. “Total assets” means with respect to a money market fund using the amortized cost method, the total amortized cost of its assets and, with respect to any other money market fund, the total market-based value of its assets. See amended rule 2a-7(a)(27). SEC Rel. No. 29132 *supra* n. 1.

28 Fitch Ratings, Study of MMF Shadow NAV Shows Stability (June 14, 2012), available at: <http://www.fitchratings.com/web/en/dynamic/articles/Study-of-MMF-Shadow-NAV-Shows-Stability.jsp>.

29 SEC Rel. No. 29132, *supra* n. 1, at 56 n. 210. The deviation between the fund’s NAV “calculated using available market quotations (or an appropriate substitute which reflects current market conditions)” and its amortized cost value per share, a process commonly referred to as “shadow pricing.”

30 *Id.* at 185.

To heighten the rigor of regulation further, the 2010 amendments mandated that every fund conduct four particular stress tests to evaluate the fund's ability to maintain a stable net asset value per share based upon:

1. “a change in short-term interest rates;”
2. “an increase in shareholder redemptions;”
3. “a downgrade of or default on portfolio securities;”³¹ and
4. “the widening or narrowing of spreads between yields on an appropriate benchmark the fund has selected for overnight interest rates and commercial paper and other types of securities held by the fund.”³²

The SEC “would expect that if a fund’s shadow [NAV] decreased to less than \$0.9975, the fund would conduct stress tests at least every week.”³³

In order to ensure abundant transparency and keep investors abreast of the risks of each fund, the SEC also introduced two new disclosure requirements. Each MMF must now – on a monthly basis – provide a website disclosure on the fund’s portfolio, and submit more extensive information to the SEC, which then becomes publicly available 60 days subsequent. Specifically, MMFs must provide information on each holding, including description and CUSIP number, amortized cost, the maturity utilized in calculating the MMF’s average weighted portfolio maturity, and final maturity utilized in calculating the dollar-weighted average portfolio maturity, which is calculated without regard to interest rate adjustments (“Modified WAM”).³⁴ Each security must further be assigned to one of sixteen prescribed categories of investments (*e.g.*, Treasury debt, financial company commercial paper, certificate of deposit).³⁵ In addition, the mark-to-market “shadow price” of shares must be calculated and reported as a benchmark against the “amortized cost” value of the MMF’s shares. These rigorous disclosure requirements were designed to provide investors with an unprecedentedly high level of transparency.

³¹ *Id.* at 198. A Treasury fund (i.e., a “fund that invests solely in direct obligations of the U.S. government”) may be able to forgo this test. See Staff Responses to Questions about Money Market Fund Reform (revised Aug. 7, 2012), at Question III.A.1. [available <http://www.sec.gov/divisions/investment/guidance/mmfreform-imqa.htm> [hereinafter 2a-7 SEC Q&A].

³² SEC Rel. No. 29132 *supra* n. 1, at 198.

³³ *Id.* at 68 n. 262.

³⁴ 2a-7 SEC Q&A *supra* n. 31, at Question V.H.1.

³⁵ Staff Responses to Questions about Rule 30b1-7 and Form N-MFP (revised July 29, 2011), <http://www.sec.gov/divisions/investment/guidance/formn-mfpqqa.htm> [hereinafter Form N-MFP Q&A], at Question II.C.1. (“Q: Form N-MFP (like the monthly website posting provision under rule 2a-7) requires funds to indicate the specific category most closely identified with each portfolio security. Must funds use the categories specified in Form N-MFP or can they use other categories? A: Funds must use the categories specified in Form N-MFP.”)

Proof of the robustness instilled by the 2010 reforms is apparent in stress tests for interest rate sensitivity. Using the formula,

$$\% \text{ price change} = - \text{modified duration} * \text{yield change}$$

for a fund with a 60 day average maturity, the instantaneous yield shift required to reduce a fund by ½% (from \$1.00 NAV to \$.995 NAV) is 304 basis points (bps):

$$\begin{aligned} \text{yield change} &= \% \text{ price change} / \text{-modified duration} \\ &-(.005) / -(60 \text{ days} / 365 \text{ days per year}) = .0304 \end{aligned}$$

Prior to the 2010 amendments, this yield shift was 203 bps. This analysis, which is the same as that utilized by Standard & Poor's in determining criteria for rated funds, demonstrates the improved robustness of MMFs. Since the worst one day shock to the federal funds rate since 1990 was 283 bps in January 1991, the ability of MMFs to withstand a shift of 304 basis points is telling of their current stability.³⁶

The 2a-7 reforms of 2010 were well tailored to fix any minor problems that existed. However, before taking the time to fully evaluate the sufficiency of these measures, regulators are already pushing to make radical, damaging changes to the already well-regulated MMF industry. The SEC is required by statute to evaluate the economic consequences of its rules, lest they be reversed by the D.C. Court of Appeals, as has occurred in the past. Thus, the SEC's internal guidance mandates that an analysis of the "likely economic consequences" be "substantially complete" before even proposing a rule.³⁷ To date, however, there are no economic analyses in the public file supporting the premise that the rule changes advocated by the SEC Chairman would reduce the likelihood of runs on MMFs – in fact, there are only studies suggesting that the proposed rules would actually precipitate runs.

As SEC Commissioners Gallagher and Paredes conclude in their statement on MMF reform,

Regulatory intervention into a \$2.5 trillion industry – an industry that is integral to meeting the funding needs of major American institutions, both public and private – must not be done on the basis of incomplete data and analysis, including a less than up-to-date understanding of the efficacy of the Commission's 2010 money market

³⁶ Standard & Poor's *Global Credit Portal, RatingsDirect: Methodology: Principal Stability Fund Ratings* (June 8, 2011) (available at https://www.sbafla.com/prime/portals/8/RiskMan_Oversight/FundProfile/201106_SPPrincipalStabilityFundRatingsMethodology.pdf).

³⁷ SEC Mar. 2012 Memo *supra* n. 8, at 16.

fund reforms. To date, no convincing evidence has been produced demonstrating that the fundamental restructuring of money market funds that the Chairman urges would be the appropriate means for addressing any remaining risks. To the contrary, what we have been shown tells us that the Chairman's proposal risks effectively ending prime money market funds as we know them...³⁸

For nearly thirty years, 2a-7 has successfully balanced investor needs for diversified cash management with investor concerns for the safety of their cash. During this period, MMFs have shown remarkable resiliency. The Federal Reserve and the SEC Chairman have advocated changing this. Despite the stabilizing force it has played over the past decades, regulators have advocated an end to the \$1.00 NAV, as discussed in Part IV.

III. CONTEMPLATED REGULATORY OPTIONS WILL INCREASE SYSTEMIC RISK AND MAKE THE FINANCIAL SYSTEM LESS EFFICIENT AS WELL AS LESS SAFE

The Obama Administration has strongly endorsed the idea of enhancing the resiliency of money market funds – that is, strengthening MMFs, not destroying their key features. However, some have responded to this call by proposing measures that would have the opposite effect. In October 2010, the PWG responded with a report on options to further regulate money market funds beyond the regulatory amendments already instituted by the SEC. Most recently, Staff of the Federal Reserve Bank of New York has issued Staff Report No. 564, calling for sweeping changes to the regulation of MMFs to “mitigate systemic risks arising from these funds.”³⁹

The Financial Stability Oversight Council (“FSOC”) claims in its 2012 Annual Report that the SEC’s 2010 reforms left unaddressed “core characteristics that continue to contribute to their susceptibility to destabilizing runs.” Specifically, the FSOC argued:

1. MMFs have no mechanism to absorb a sudden loss in the value of portfolio a security, without threatening the stable \$1.00 NAV, [and]

³⁸ Commissioner Daniel M. Gallagher; Commissioner Troy A. Paredes, Statement on the Regulation of Money Market Funds (August 28, 2012), at <http://www.sec.gov/news/speech/2012/spch082812dmgtap.htm>.

³⁹ Patrick E. McCabe, Marco Cipriani, Michael Holscher, and Antoine Martin, The Minimum Balance at Risk: A Proposal to Mitigate the Systemic Risks Posed by Money Market Funds, Federal Reserve Board Finance and Economics Discussion Series, at 6 (July 7, 2012) Available: <http://www.federalreserve.gov/pubs/feds/2012/201247/201247pap.pdf>.

2. there continues to be a ‘first mover advantage’ in MMFs, which can lead investors to redeem at the first indication of an perceived threat to value or liquidity of the MMD.⁴⁰

To remedy these incorrectly perceived defects, the FSOC recommends a mandatory floating NAV that moves daily in line with the value of the fund’s underlying investments, rather than the stable \$1.00 NAV prevalent today. This would effectively end 2a-7. The FSOC also recommends a capital buffer to absorb losses, “possibly combined with a redemption restriction to reduce the incentive to exit the fund.”⁴¹ Along these lines, staff of the Federal Reserve Bank of New York has likewise proposed a “minimum balance at risk,” which would prohibit investors from withdrawing a certain fraction of their portfolio for 30 days, to ensure they would “share in imminent portfolio losses or costs of their redemptions.”⁴²

The following sections will demonstrate that not only are regulators’ underlying assumptions about MMFs incorrect, but their proposed “solutions” would actually exacerbate financial instability. Their contemplated regulations would inevitably cause an exit of investors from MMFs into federally insured depository institutions, thereby increasing the U.S. economy’s vulnerability to financial shocks.

As Paul Schott Stevens, President of the Investment Company Institute (ICI), summarized,

changes promoted by some at the SEC would destroy the value of money market funds for investors and for the businesses and state and local governments that rely upon them as a vital source of financing, and thereby hurt an already struggling economy.

What’s worse, these same damaging changes would increase risk in the financial system. Forcing hundreds of billions of dollars out of money market funds will ramp up risks both in the banking system and among alternative funds that lack the risk-limiting rules and transparency of money market funds. Harm to investors, harm to the economy, and more risk to boot – that would be, to use Tett’s phrase, “shameful and dangerous” indeed.⁴³

40 FSOC Annual Report, 11 (2012).

41 *Id.*

42 McCabe et al., *supra* n. 39 at 2.

43 Paul Schott Stevens, Financial Times Column Mischaracterizes the Debate over Money Market Funds, Investment Company Institute, (Aug. 1, 2012), available at http://www.ici.org/viewpoints/view_12_pss_mmfs_ft.

The following Part IV first dispels the notion that MMFs add to systemic risk by analyzing the destabilizing forces inherent within banks as compared to the stabilizing mechanisms of MMFs. Part V then broadens the inquiry to demonstrate the positive economy-wide impact of a robust MMF market. These two parts analyze how regulations that hinder MMFs, and thereby shift money to banks, will have the opposite impact of that desired by the regulators: overregulation will hinder MMFs ability to compete for funds and thereby destabilize the financial system as assets shift back to banks.

The final parts analyze the rule changes currently advocated. Sections VI-IX discuss how the changes advocated by the SEC Chairman are not only unnecessary but will damage MMFs, and therefore make the financial system more vulnerable to economic shocks.

IV. THE ECONOMIC FUNCTION OF MMFS

The following analysis dispels the basic assumption upon which regulators have based their proposals: MMFs are a destabilizing force. Quite to the contrary, MMFs have come to serve a vital role in stabilizing the U.S. economy. This section analyzes the differences between MMFs and bank transaction accounts in order to better understand why MMFs improve economic stability. It demonstrates why any regulation that threatens to shift assets from MMFs to banks will make the economy more vulnerable to shocks.

Fundamentally speaking, there are several different ways for investors to save and invest. For the economy to function properly, there must be a bridge via which savings can be turned into investments, and also through which investments can be liquidated and either moved backed into banks or re-invested in other assets.

One example of such a portal oft utilized by investors is a transaction account, i.e., the checking account traditionally offered by banks. The economic purpose of a transaction account is to provide a safe, technologically superior substitute for cash (which, as we all know, had been a previous innovation beyond barter as the primary medium of exchange). Transaction accounts provide the important economic bridge between earnings and savings, investment, and consumption.

MMFs play a much more limited role in the economy than banks' transaction accounts. They function as an effective means by which liquidity can be channeled into investment. Unlike banks, MMFs are not transaction accounts but a short-term cash store that grow and shrink to meet investor liquidity needs. They serve a cash management function, utilizing excess cash for corporate

and governmental treasurers and other institutional investors needing stability and predictability for short periods of time, such as money managers, brokers, trustees, escrow agents, and governmental treasurers.

They further facilitate capital markets by providing individual investors with access to a means by which they might make longer term investments and hold the proceeds of investments that are sold until such money is either re-invested or moved into a transaction account.⁴⁴ Although some MMFs allow redemptions by check, MMFs are typically not used as transaction accounts in the same way that bank accounts are. Retail investors may pay certain large bills, such as tax or tuition payments, with MMF funds, but even then many investors will transfer funds from their MMF to a conventional bank account to make such payments. Banks provide the check-writing feature that is available in connection with some bundled MMF products.

Prior to MMFs, individuals and corporations had few alternatives to banks' transaction accounts for short-term investments. Unfortunately, bank transaction accounts were – and are – inherently unstable for four primary reasons:

1. The first factor is maturity mismatch between banks' assets and their liabilities. Banks' assets, such as fixed-rate mortgages, are largely long term, while their liabilities, like deposits, are mostly short term. This model is recognized as one of the main functions of banks under banking theory: "the transformation of securities with short maturities, offered to depositors, into securities with long maturities that borrowers desire."⁴⁵ The resulting "mismatch on a bank's balance sheet exposes the bank to interest rate risk"; for example, if interest rates suddenly rise, a "bank's interest costs will rise faster than its interest revenue, [leaving it with] a profit squeeze".⁴⁶ In a recent paper on the topic of maturity mismatch, Emmanuel Farhi and Jean Tirole observe that "[t]he basic problem here [in bank regulation] is not too big to fail, but rather that the banks as a whole are doing too much maturity mismatch, and are taking on too much correlated risk."⁴⁷ They go on to explain: "Maturity transformation

44 Something many cannot achieve via individual investment accounts.

45 Xavier Freixas and Jean-Charles Rochet, *Microeconomics of Banking*, 5 MIT Press (1997).

46 Skander Van den Heuvel, "The Bank Capital Channel of Monetary Policy," (2007), at 8. available at http://www.google.com/url?sa=t&rct=j&q=&esrc=s&source=web&cd=3&ved=0CFQQFjAC&url=http%3A%2F%2Fwww.frbatlanta.org%2Fnews%2FCONFERENCE%2Fcreditchannels%2F07CC_vandenheuvel.pdf&ei=NoX8T4qkFaTk0QHDr9XqBg&usg=AFQjCNG9mP_xJ9fyBx3A9o5NORRmypJ2A

47 Emmanuel Farhi and Jean Tirole, "Collective Moral Hazard, Maturity Mismatch, and Systemic Bailouts," (2011). at 5. available at <http://www.google.com/url?sa=t&rct=j&q=&esrc=s&source=web&cd=1&ved=0CFAQFjAA&url=http%3A%2F%2Fwww.haas.berkeley.edu%2Fgroups%2Ffinance%2Fcollectivemh.pdf&ei=TIX8T-OgE8LM0AHW-vziBg&usg=AFQjCNHU3gg04LlnOoIOBstdgqMeayeFfg>

is intense in the economy when numerous institutions take on substantial short-term debt. The issuance of short-term debt enables banks to increase their leverage and investment, but exposes them to a potential refinancing problem in case of a shock.”⁴⁸ Such risk, in turn, threatens investors utilizing those banks’ transaction accounts.

2. The second cause of banks’ natural instability is closely related to the first: their assets, in addition to typically being long term, are usually illiquid, while banks’ liabilities are highly liquid. Rajan and Bird (2012) describe how this liquidity mismatch inherent to banks is a direct result of their maturity mismatch: “It is to reconfirm that liquidity crises can … result simply from maturity mismatches that themselves reflect the outcome of self-interested optimising behaviour by commercial banks.”⁴⁹ Liquidity measure can be very relevant when the financial sector is reacting to a run on lenders. When this happens, “the sector sells assets whose prices reflect an illiquidity discount”; the lower asset prices lead to losses for the bank that further compromise liquidity by depleting capital.⁵⁰ Thus, the problem of liquidity mismatch in banks is self-perpetuating, and any sudden scramble for liquidity could become “central in the dynamics of a financial crisis” since banks’ assets are simply not liquid enough to sustain any serious run.⁵¹

This weakness was visible, for example, during the 1997 Asian liquidity crisis. The affected banks’ held assets that proved insufficient in meeting short-term foreign liabilities.⁵² In a thorough examination of the crisis, Chang and Velasco (1998) define it as a “*classic financial crisis* made possible by the illiquidity of the financial sector, the likes of which we have seen before in so-called emerging markets.”⁵³ International illiquidity, they say, is a “necessary and sufficient condition for financial crashes and/or balance of payment crises”.⁵⁴ The two characteristics discussed

⁴⁸ *Id.* at 4.

⁴⁹ Ramkishen Rajan and Graham Bird, “Banks, Maturity Mismatch and Liquidity Crises: A Simple Model” 2001, at 2, available at <http://www.scribd.com/doc/18356807/Banks-Maturity-Mismatches-and-Liquidity-Crises-A-Simple-Model>.

⁵⁰ Markus Brunnermeier *et al.*, “Liquidity Mismatch Measurement,” (2012) at 3, available at http://www.google.com/url?sa=&rct=j&q=&esrc=s&source=web&cd=5&ved=0CFQQFjAE&url=http%3A%2Fwww.nber.org%2Fchapters%2Fc12514.pdf&ei=O4b8T5upG8LM0AHW-vziBg&usg=AFQjCNHVfX8Il2I2_XKnfZQIGUvSsgXwg.

⁵¹ *Id.* at 1.

⁵² Rajan and Bird, *supra* n. 49, at 3.

⁵³ Roberto Chang and Andres Velasco, “The Asian Liquidity Crisis” (1998), at 1, 2. available at www.nber.org/papers/W6796.

⁵⁴ *Id.* p. 2.

so far – maturity and liquidity mismatches between a bank’s assets and liabilities – make banks unusually vulnerable to financial shocks. This vulnerability is further compounded by the fact that banks’ assets are so opaque that they are difficult for regulators, customers and investors to monitor, thereby making crises even more unpredictable.

3. Citing disagreement among credit rating agencies, Morgan (1997) concludes that “banks are opaque, and that the veil is inherent to the business. Banks hold few fixed assets, and the risk of their mostly financial assets are relatively hard to observe or easy to change.”⁵⁵ Alan Greenspan delivered a speech at the Federal Reserves’ Financial Market Conference that focused on the problem of banks’ opacity, echoing, “bank loans are customized, privately negotiated agreements that … quite often lack transparency and liquidity. This unquestionably makes the risks of many bank loans rather difficult to quantify and to manage.”⁵⁶ In a vicious cycle, the long term illiquidity of assets makes regulation necessary but their opacity makes monitoring their strength difficult. This leaves the monitoring function primarily to bank regulators. With MMFs, on the other hand, both the SEC and investors view holdings in detail. Unlike MMFs, banks do not have the discipline of MMF investors, who review their portfolios in detail, since they are made aware that theirs is an unguaranteed investment and are correspondingly provided with detailed monthly information on the fund.
4. The first three factors contributing to bank instability are all related to their assets, but the final factor involves their overall structure, namely capital deficiencies. A bank’s capital is measured by the ratio of its equity to its assets, which are inherently volatile, illiquid, opaque, and of indeterminate quality. Banks and thrifts, even healthy ones, are very thinly capitalized.⁵⁷ “in mid 2010, the median capital ratio of com-

55 Donald Morgan, “Judging the Risk of Banks: What Makes Banks Opaque?” (1997), at 1, available at www.ny.frb.org/research/staff_reports/research_papers/9805.pdf.

56 Alan Greenspan February 23rd, 1996 address at Financial Markets Conference at 1-2, available at http://www.google.com/url?sa=t&crct=j&q=&esrc=s&source=web&cd=3&ved=0CEUQFjAC&url=http%3A%2F%2Ffraser.stlouisfed.org%2Fdocs%2Fhistorical%2FGreenspan%2FGreenspan_19960223.pdf&ei=YYj8T6TTGOPo6gG5huTgBg&usg=AFQjCNHom4JL3SiZLC4Tn-1gwvWLC2MgvQ.

57 Lawrence G. White, The S&L Debacle, 59 Fordham L. Rev 557, 559 (1991) Available at http://www.google.com/url?sa=t&crct=j&q=&esrc=s&source=web&cd=3&ved=0CFAQFjAC&url=http%3A%2F%2Fir.lawnet.fordham.edu%2Fcgi%2Fviewcontent.cgi%3Farticle%3D2921%26context%3Dflr&ei=4XL8T9izCoiO2wXf_JjZBg&usg=AFQjCNEGaAJPbDfUIEKZJ8u6LLSnu0MIkw.

mmercial banks was [only] about 8.5%”.⁵⁸ The standard argument for such high leverage is that banks use deposits not only to make loans, but also to provide liquidity and transaction services to depositors; therefore, banks are unusually highly levered because deposits are a form of debt.⁵⁹ Such capitalization has profound implications for bank safety and, in turn, transaction accounts.

Capital ratios have long been a valuable tool for assessing bank soundness, with bank regulators and supervisors informally using ratios for well over a century.⁶⁰ In a study of capital ratios as predictors of bank failure, Estrella, Park, and Peristiani (2000) found that “all three [capital] ratios [risk-weights, leverage, and gross revenue] are strongly informative about subsequent failures.”⁶¹ A thinly capitalized bank will experience a larger percentage change in equity following a given profit shock, which explains part of the connection between capital ratio and bank failure. In addition, Jensen and Meckling (1976) argue that high leverage creates asset-substitution or moral hazard that make bank managers and shareholders prefer riskier gambles in order to maximize the value of their equity option on bank assets.⁶² In this sense, the low capitalization is not only an indicator of possible risk, but also a cause of it. Recently, the Federal Reserve has responded to the potential problems of bank capital in its annual “stress test” to review the potential performance of nineteen large banks in a hypothetical severe economic slump. Four of the banks failed the test because they did not present enough capital for the crisis.⁶³

To summarize, there are four primary reasons for banks’ inherent instability: (1) their assets and liabilities are mismatched with respect to maturity and (2) their assets and liabilities are mismatched with respect to liquidity; (3) their assets are opaque and thus hard to monitor; and (4) banks are very thinly

58 *Federal Reserve Bank of New York Staff Reports* “Robust Capital Regulation,” (2011) at 2, available at www.newyorkfed.org/research/staff_reports/sr490.pdf.

59 *Id.* at 4.

60 Arturo Estrella et al., “Capital Ratios as Predictors of Bank Failures,” (2000), at 1 (citing Mitchell (1909)). Available at www.newyorkfed.org/research/epr/00v06n2/0007estr.pdf.

61 *Id.* at 1.

62 See, in general, Michael Jensen and William Meckling, “Theory of the Firm: Managerial Behavior, Agency Costs and Ownership Structure,” 1976.

63 Reed Saxon, Federal Reserve Annual Stress Test Fails 4 of 19 Big Banks, USA Today, Mar. 14, 2012, available at <http://www.usatoday.com/money/industries/banking/story/2012-03-12/fed-stress-test/53514988/1>.

capitalized. As a result of these characteristics, the responsibility of providing stability to the industry falls to the government. Government support to banks manifests itself in three different ways: federally sponsored and subsidized deposit insurance, access to the Fed lending window, and periodic bailouts.

However, even with this aid from the government, there is ongoing debate as to whether or not these policies (deposit insurance and bailouts in particular) are healthy in the long term for our economy. Demirgürç-Kunt and Detragiache (2002) found that explicit deposit insurance actually *increases* the likelihood of a bank crisis, concluding that the adverse impact is even stronger with more extensive coverage and when the insurance is run by the government rather than the private sector.⁶⁴ In the framework of their study, it is quite alarming that Congress continuously increases the coverage level for deposit insurance, from its original figure of \$2,500 to \$250,000, with the most recent increase made permanent by Section 335 of the Dodd-Frank Wall Street Reform and Consumer Protection Act (this deposit insurance ceiling was temporarily removed for Demand Deposit Accounts by the FDIC, and then Dodd-Frank, through the end of this year).⁶⁵ Even adjusting for inflation, (once the cap is reinstated) the level of coverage has increased approximately six times the value in real terms since 1934.⁶⁶ These increases in coverage not only concentrate funds within the largest banks, but also may represent de facto reductions in deposit insurance premiums when the government takes on significantly greater risk without proportionately increasing the premiums.⁶⁷ In fact, the Deposit Insurance Funds (“DIF’s”) resources are finite.⁶⁸ The insolvency of the Federal Savings and Loan Insurance Corporation in the 1980’s shows us that government insurance funds can be depleted.⁶⁹ In these ways, the government is increasingly taking on more responsibility to fund a program that might not provide the financial stability it is meant to offer.⁷⁰ The government intervention may be having the opposite effect by providing artificial support and perhaps an unrealistic sense of security. Imposing a like regime upon MMFs would squash alternatives and bring more assets under this problematic umbrella.

64 Asli Demirgürç-Kunt and Enrica Detragiache, “Does Deposit Insurance Increase Banking System Stability? An Empirical Investigation,” 2002, p. 1.

65 The FDIC originally created its Transaction Account Guarantee (TAG) program in 2008. The TAG program insured all deposits in transaction accounts without limitation. The program was extended through the end of 2012 by Congress.

66 U.S. Bureau of Labor Statistics, Consumer Price Index (CPI) Inflation Calculator, available at <http://data.bls.gov/cgi-bin/cipcalc.pl>.

67 Jonathan R. Macey & Geoffrey P. Miller, Nondeposit Deposits and the Future of Bank Regulation, 91 Mich. L. Rev. 237, 239-241 (1992).

68 Macey, *supra* n. 7, 152.

69 *Id.*

70 For more on debate, see Diamond and Dybvig (1983) who argue that deposit insurance eliminates the incentive for depositors to run, and Kane (1985) and Scott (1987) who argue that deposit insurance distorts incentives by intervening with market discipline.

The efficacy of government bailouts likewise has come under great scrutiny. The central problem with government bailouts is that they create an environment in which creditors expect protection. Not only do creditors anticipate it, but the government is inclined to provide it or else face demands from depositors who claim that government supervision created a reasonable expectation of government protection from loss. Although the complex nature of the costs and benefits of bailouts makes the quantification only possible on very general, impressionistic levels, most agree that the costs of a government bailout outweigh the benefits.⁷¹

If regulators' goal is to end the need for government bailouts for financial institutions that are "too big to fail," cash investors must bear some risk and responsibility. Making the government's role in regulating MMFs substantially more oppressive, or killing them off entirely and re-routing the money to FDIC-insured banks (most likely Systemically Important Financial Institution (SIFI) banks) will not help to achieve this objective. Regulation that nudges investors towards banks will only compound these many destabilizing forces inherent within banks. Instead of attempting to treat MMFs more like banks, regulators should instead seek to keep assets in the more-stable MMFs.

A. The Real Lessons to be Learned from Reserve Primary Fund

Money market funds, in comparison to banks, are very stable. They are not perfectly stable, though, and the best evidence of this is the recent financial crisis of 2008. The fact that one MMF experienced a loss of *less than one penny* during that period has sparked increased criticism of MMFs and heralded a call for significant reforms to the existing regulatory structure. However, often lost in this flurry of criticism are the facts that, first, no action directly taken by any MMF contributed to the credit crisis; second, although MMFs did not escape the market turbulence entirely unscathed, the overwhelming majority of MMF shareholders did not lose a single penny in the crisis, and the relatively few investors who did lose money lost less than a penny on the dollar. Indeed, of the more than \$3 trillion in MMF assets in 2008, only a very small amount (i.e., the size of the Reserve Primary Fund at the time of its demise) actually resulted in losses to shareholders. The following section describes the effects of the crisis on MMFs.

In 2008, the Reserve Primary Fund held a substantial portion of its total assets – \$785 million – in Lehman-issued debt.⁷² The unprecedented period

71 Gary Stern, Ron Feldman. "Too Big to Fail: the Hazards of Bank Bailouts," 2004 p. 21. See Frydl and Quintyn (2000), Cordella and Yeyati (1999), and Freixas (1999) for cost benefit analysis of government intervention and bailouts.

72 Macey *supra*, n. 7 at 20.

of excessive borrowing and lending, particularly in the market for subprime residential mortgages, led to the demise of Lehman on September 15, 2008 after Lehman accrued massive losses in mortgage-backed securities. The panic resulting from the Lehman bankruptcy spread throughout the market, and soon other normally stable institutions and funds, including some money market mutual funds, came under pressure.⁷³

The day after Lehman was forced to declare bankruptcy, the Reserve Fund valued all of the Lehman debt at zero. Under SEC and court supervision, the Reserve Primary Fund was liquidated in an orderly fashion that shielded investors from dramatic losses. Even though one would not get this impression in light of the regulatory response, it must be stressed that Reserve Primary Fund did not lose a large percentage of its shareholders' invested capital. Rather, when the fund broke the buck, Reserve Primary Fund's NAV fell just three pennies, to \$0.97 a share. This drop occurred in two stages. First, the NAV went to \$0.99 when the 1% Lehman position was priced at zero. Second, shareholder redemptions caused a further dilution of less than two additional cents.⁷⁴ Afterwards, the fund was liquidated in a process overseen by the SEC. Ironically, this crisis also serves to show the resiliency of MMFs in the face of severe financial shocks – after a lengthy process of liquidation, no shareholder received less than \$.99 per share.⁷⁵ While certainly unnerving, the losses were far from catastrophic. Making general diagnoses based upon the unique experience of one MMF will lead to the detrimental impacts discussed *infra*. Regulators pointing to the Reserve Fund as a reason to place additional restrictions on all MMFs is like a doctor advocating mass quarantines because an elderly man developed pneumonia after being thrown into the blizzard of the century:

Unprecedented conditions: Would this scenario have transpired outside the context of virtually unprecedented financial chaos? No. The financial crisis of 2007-2008 is unprecedented in history. As the housing bubble burst, a \$1.2 trillion run on other (non-MMF) asset classes occurred during the 15 months preceding the chaos of mid-September 2008, thereby leading to a liquidity crunch across the financial markets. This led to the rescue of Bear Stearns and forced sale of Countrywide Financial in the Spring of 2008. By September, however, Fannie Mae and Freddie Mac were placed into conservatorship, Merrill Lynch was forced to sell itself, and Lehman failed. Despite the long history of bailouts, the government, in a large course change, decided not to rescue Lehman. “This flip-flop was not antici-

73 Macey, *supra* n. 7, 144.

74 *Id.* at 146.

75 Press Release, The Reserve Primary Fund, The Reserve Primary Fund to Distribute \$215 Million, Jul. 15, 2010.

pated by all market players – hence the problems when the Reserve Fund had to stop redemptions.”⁷⁶ Further, the “unprecedented, huge bailout of AIG the night after Lehman failed was the surprise that shook the market to its core and prompted investor panic.”⁷⁷ Despite the multitude of once venerable financial companies crashing around the nation, “damage was contained within a few MMFs and no other MMF was mortally wounded.”⁷⁸

Compromised functioning: The Reserve Primary Fund was uniquely vulnerable. In what was a very poor bet, the fund’s assets had expanded at a very rapid rate in 2008, rising 95% to \$125 billion, with the Primary Fund representing approximately \$65 billion of that total.⁷⁹ While every other MMF holding Lehman paper maintained its \$1.00 NAV,⁸⁰ the Reserve Fund had invested heavily in Lehman debt, which had been previously considered safe. The FCIC Report concluded that the Reserve Fund had assumed that the Federal government would bail out Lehman. The Reserve Fund attempted to drive up yield and expand rapidly by amassing so much A-rated Lehman commercial paper that it represented 1.2% of the Primary Fund’s total holdings. Further, the SEC has accused the Reserve Fund Management of mishandling the situation. Fund losses may have been lessened if the Reserve Fund, as soon as Lehman declared bankruptcy, simply suspended redemptions until they could calculate the fund’s true net value; thereby eliminating the unfair results of some people getting out at \$1.00 when the NAV/share was \$0.99. MMFs have the power to equitably liquidate should a catastrophic “perfect storm” ever occur again. As the government attempts to contort the regulations to guard against these unlikely occurrences – and destroying the essential characteristics of MMFs in the process – with floating NAVs and minimum balance requirements, the funds themselves can simply and effectively enforce equitable distribution via sound management.

The Reserve situation is *sui generis* and does not justify a fundamental change in an entire industry that is extremely safe and sound, even in times of great stress and turmoil in the financial markets. The Reserve Primary Fund’s breaking the buck did not precipitate the crisis; it was a product of the crisis.

⁷⁶ Letter dated June 1, 2012 to SEC Chairman Mary Schapiro from Tony Carfang and Cathy Gregg, Treasury Strategies, Inc. (available at <http://www.sec.gov/comments/4-619/4619-188.pdf>).

⁷⁷ *Id.*

⁷⁸ *Id.*

⁷⁹ Christopher Condon, “Reserve Primary Money Fund Falls Below \$1.00 a Share (Update4),” Bloomberg News (Sept 16, 2008), at <http://www.bloomberg.com/apps/news?pid=newsarchive&csid=a5O2y1go1GRU>.

⁸⁰ Some did so through forms of a capital support from sponsors’ agreements.

The liquidity crisis commenced during the summer of 2007 and finally culminated over a year later in Lehman's collapse and the AIG bailout. During this time, many financial institutions suffered substantial losses. One cannot overstate the level of concern in the money markets during this period that other similarly important institutions might fail. The fear and near panic among investors and banks in late 2008 has been well documented.⁸¹ In light of their doubts as to the long-term prospects of banks and financial institutions around the globe, investors of all types sought to limit exposure to counterparties, and fled to the safety of cash or Treasury securities. As a consequence, some short-term markets seized up, impairing access to credit by participants in the short-term private debt market.⁸²

The Reserve Primary Fund was not the only MMF to run into problems during the crisis. Evergreen Investments likewise experienced losses and was aided out by its parent company, Wachovia. Putnam Investments likewise ran into trouble, but adeptly protected its investors by suspending redemptions, transferring their fund's assets and shareholders to a Federated-sponsored MMF rather than sell their securities at a fire-sale price. The Federated fund absorbed the Putnam fund with no difficulties and investors received new shares on a share-per-share basis at \$1.00. MMFs are less likely to face future crises due to the high quality of their assets and liquidity. Rather tellingly, "MMFs were the last asset class to encounter difficulty and suffered the smallest losses in both real and proportional terms."⁸³

Overall, prime MMFs had large net redemptions over one week as money flowed to treasury bills and U.S. government securities MMFs.⁸⁴ Only the Reserve Primary Fund incurred losses to shareholders and those were of less than one penny per share.

Government Response. In response to the short-term liquidity problems, on September 19, 2008, the Federal Reserve Board announced its plan to expand its emergency lending program to help commercial banks finance the purchase of asset-backed securities from money market mutual funds.⁸⁵ On that same day, the Treasury Department announced it would guarantee MMFs against losses up to \$50 billion with money from the Exchange Stability Fund. Called the "Guarantee Program" the Treasury would provide aid if a participating fund (participation required a fee) had its NAV fall below \$.995.

81 Fin. Crisis Inquiry Comm'n Preliminary Staff Report: Shadow Banking and the Financial Crisis, , (May 4, 2010) at 31-40.

82 Macey, *supra* n. 7, 148.

83 Treasury Strategies, Inc., March 26, 2010 Letter to The Honorable Luis A. Aguilar 5, *at* <http://www.sec.gov/comments/4-619/4619-154.pdf>.

84 Treasury Strategies' Letter to SEC Chairman Schapiro, *supra* n. 76, at 7-8.

85 Press Release, Bd. of Governors of the Fed. Reserve Sys., (Jan. 30, 2009), available at <http://www.federalreserve.gov/monetary-policy/20090130a.htm> (as cited in Macey, *supra* note 5, at 149).

The Treasury Department based its power to insure MMFs on the Gold Reserve Act of 1934, the statute that had created the Exchange Stabilization Fund (ESF).⁸⁶ This guarantee was unusual in that its coverage was tied specifically to balances on one day: September 19, 2008. Most money market funds enrolled in this program, including some of the nation's largest, such as Charles Schwab, Federated, Fidelity, Morgan Stanley, Putnam Investments, BlackRock and JPMorgan Chase.

MMFs and advisors paid \$1.2 billion in premiums, but there was not a single claim made under the Guarantee Program.⁸⁷ Even though the government guarantee of MMF holdings was capped at September 19, 2008 levels, over the following weeks, investors poured \$250 billion additional, non-guaranteed assets into MMFs, \$170 billion of which flowed into prime funds. Thus, investors, understanding MMFs' stability, were nevertheless choosing non-guaranteed prime MMFs even while the government was insuring virtually all corporate bank deposits.⁸⁸ In fact, by February of 2009, the funds were close to reaching \$4 trillion in assets, an all-time high.⁸⁹ With these two facts in mind, it is important to look at the goal of the government's intervention in money market funds.

In the Treasury Department's own words, the goal was to "enhance market confidence and alleviate investors' concerns about the ability for money market mutual funds to absorb a loss."⁹⁰ This action of the government was explicitly designed to restore confidence and liquidity in the market generally, MMFs in particular, and stimulate investment, rather than rescue the funds monetarily.⁹¹ The best evidence of this fact is that the government prohibited any fund that had suspended redemptions from participating in the program (Putnam and Reserve) and that it directly profited off of the Guarantee Program, while the funds profited from the restored confidence of depositors. The MMFs did not need a bailout because of their inherent stability. In fact, the MMFs weathered the crisis relatively well.

⁸⁶ See Steven M. Davidoff and David Zaring, *Regulation by Deal: The Government's Response to the Financial Crisis*, 61 Admin. L. Rev. 508 (2009) (characterizing the ESF-backed insurance program as "[a]d hoc, marked by a rapid response to unprecedented financial market chaos, and authorized by an unconventional interpretation of a Depression-era statute that created a program meant to do something else").

⁸⁷ Press Release: Treasury Announces Expiration of Guarantee Program for Money Market Funds (Sept. 17, 2009), at <http://www.treasury.gov/press-center/press-releases/Pages/tg293.aspx>; Shefali Anand, "*Treasury Pads Coffers in Bailout*," Wall St. J. (February 17, 2009), available at <http://online.wsj.com/article/SB123483112001495707.html>.

⁸⁸ Treasury Strategies paper on President's Working Group on Money Market Reform (File No. 4-619) (June 1, 2012), at <http://www.sec.gov/comments/4-619/4619-188.pdf>.

⁸⁹ *Id.*

⁹⁰ Diana Henriques, "*Treasury to Guarantee Money Market Funds*," New York Times (September 19, 2008), Available at <http://www.nytimes.com/2008/09/20/business/20moneys.html>.

⁹¹ The Fed action was aimed at providing liquidity and Treasury's at restoring confidence.

i. Why Money Markets are Vastly More Stable than Banks

The response of MMFs to the financial crisis and the ensuing government “Guarantee Program” is evidence of their stability in the face of uncertainty. The 2010 amendments to 2a-7 were in reaction to the financial industry-wide liquidity crisis of 2007-2008, and intentionally sought to maintain amortized cost, which helped MMFs to provide stability and liquidity to the market.

The increased stability of MMFs is inherent to their structure. While some have suggested that the events of 2007-2008 are evidence that money market mutual funds are “not robust enough to withstand a major disruption,” indeed, the opposite is true for several reasons:⁹²

1. Matching Assets and Liability Structure

The first factor that makes MMFs more stable than banks is that they closely, albeit slightly imperfectly, match the term structure and the liquidity characteristics of their assets and liabilities. This structure ensures that MMFs do not suffer from the vulnerability arising from maturity and liquidity mismatches as banks do. MMFs’ close investment and obligation alignment are mandated by the maturity and liquidity requirements imposed by Rule 2a-7, as addressed above.

The strict rules contained within the 2010 amendments to 2a-7 ensure that MMFs’ portfolios are comprised of 95% liquid securities, with 10% of holdings convertible to cash within a day and 30% within a week. In fact, the maximum weighted average maturity of an MMF portfolio was reduced to 60 days.⁹³ Further, they must maintain a sufficient degree of liquidity necessary to meet “reasonably foreseeable redemption requests.”⁹⁴ The stress tests outlined above ensure that MMFs are prepared to meet the demands of various shocks in the market as the 2a-7 amendments ensure they match the liquidity characteristics of their holdings and liabilities.

⁹² See Press Release, T-G-645, U.S. Dep’t of the Treasury, Apr. 20, 2010, available at <http://www.treasury.gov/press-center/press-releases/Pages/tg645.aspx>.

⁹³ Benjamin Haskin, “SEC Adopts Money Market Fund Reforms,” Available at http://www.google.com/url?sa=t&rct=j&q=&esrc=s&source=web&cd=2&sqi=2&ved=0CE4QFjAB&url=http%3A%2F%2Fwww.willkie.com%2Ffiles%2Ftbl_s29Publications%255CFileUpload5686%255C3249%255CSEC%2520Adopts%2520Money%2520Market%2520Fund%2520Reform%2520Rules.pdf&ei=sY78T5CyCebV0QGl7rC4Bg&usg=AFQjCNGWdfTnKluKVMSUwkvZ0eVUnRUF-A.

⁹⁴ See Amended Rule 2a-7(c)(5). Depending upon the volatility of its cash flows (particularly shareholder redemptions), this new provision may require a money market fund to maintain greater liquidity than would be required by the daily and weekly minimum liquidity requirements set forth in Rule 2a-7.

2. MMFs Offer Greater Transparency

In addition to term structure and liquidity, MMFs are also more stable than banks because their assets are transparent, thereby making them easier to regulate. Not only do banks disclose less information than MMFs, they even have “incentive to misreport the value and the riskiness of their assets to save on costly equity capital and to shape favorably investors’ perception about them.”⁹⁵ MMFs provide an alternative.

One of the principal arguments justifying bank supervision is the depositor-shareholder agency conflict. Under this theory, depositors are generally unsophisticated and have much less access to information than shareholders. Therefore, depositors are generally powerless to control shareholder behavior. However, this conflict is not an issue for money market mutual funds since MMFs, again because of 2010 SEC rule changes, are required to disclose their holdings to the public at least once a month. They outline their holdings and statistics in great detail to both investors and the SEC. These updates are in addition to the SEC requirement that each investor receive a prospectus before purchasing shares in an MMF.

These disclosure requirements are fundamental to the operation of MMFs because investors rely on the ability to redeem their shares promptly and efficiently. Therefore, it is important that investors are aware of where their money is and how much it is worth. With bank deposits, customers are exposed to a single entity that is able to lend or invest as it sees fit with no disclosure requirements. When investing in an MMF, on the other hand, the investor is buying a diversified basket of securities, which exposes the investor to the securities of a number of different entities, the identities of which are all disclosed to investors on that monthly basis. This diversification decreases the investor’s credit risk particularly when compared to bank deposits. The SEC’s stringent disclosure requirements ensure far greater transparency than that found at banks.

Form N-MFP, required of MMFs by the 2010 amendments to 2a-7, ensures that the funds provide investors with detailed information. The form is divided into two parts:

- (1) information regarding the fund as a whole and (2) information about each portfolio investment. The first ten questions of Part I relate to the category of fund and its primary service providers. The fund and class level information in the remainder of Part I require

⁹⁵ Federal Reserve Bank of Kansas, “Bank Capital Regulation and Secondary Markets for Bank Assets” at 1 (rev. February 2012), available at <http://www.kansascityfed.org/publicat/reswkpap/pdf/RWP11-02.pdf>.

disclosure of the shadow NAVs for each class⁹⁶ and gross (at the fund level) and net (at the class level) seven-day yields. Total assets, liabilities and net assets are reported at the fund level; gross sales and redemptions of shares and net shareholder activity are reported at the class level.⁹⁷

MMF share values are calculated and reported on both an amortized cost basis and on a mark-to-market “shadow price” basis. Unlike with less transparent banks, STIFs, and hedge funds, MMF investors have great clarity into their investment holdings.

3. Higher Quality Holdings

MMFs have additional features that give them safety advantages over banks. As already discussed, thin capitalization is very dangerous for banks because of bank assets’ volatility, illiquidity, opacity, and difficulty of valuation. MMF assets, however, have none of these qualities and 2a-7 requires that they be of high quality, as discussed previously.

By regulation, MMFs are investing in assets that are less volatile, illiquid, opaque, or difficult to value than banks’ assets. As examples, while banks invest many of their assets in financial markets that money market funds cannot, such as residential, car, or small business loans as well as bonds with long maturities (e.g., 30 years), MMFs must limit their investments to high credit quality, short-term and liquid instruments.⁹⁸ The commercial paper is not only safer, but represents a lower cost structure vis-a-vis bank loans. Because of this quality of their assets, MMFs have rarely had an appreciable problem with credit losses. Compared to banks, MMFs’ overall structure makes them more efficient since they need not seek out large returns (like banks must) in order to profit.

4. Shares vs. Debt

There is another basic but important distinction between mutual funds and banks: shares in MMFs are not debt instruments. The fund does not promise to pay back the investor at any specified value, but rather commits to redeem investments based upon the fund’s NAV at the time of redemption. While banks default to their creditors or depositors if they do not repay in full, MMFs, as we saw with the Reserve Primary Fund, end up repaying a large amount of their

⁹⁶ Funds that distribute all of their daily net income for every class of shares may use the fund level shadow price without a separate calculation. Form N-MFP Q&A, *supra* n. 35, at Question II.B.1.

⁹⁷ ICI Report, *supra* n. 21 at 34.

⁹⁸ Macey, *supra* n. 7, 166.

shareholders' money in the rare event that they liquidate. As investors, MMFs' clients are provided with detailed information on their investments and are notified that they bear the risk of loss. As investment products, MMFs are subject to market discipline and openly advertise the potential for investor losses.

Whereas banks set an administered rate, MMFs provide a market return. Interests in a mutual fund are thus a form of demand equity rather than demand debt. Contrary to the Federal Reserve of New York staff's assumptions that "MMFs are vulnerable to runs," this feature means that a run on mutual funds is unlikely (and helps explain why such runs have been quite rare when compared to bank runs).⁹⁹ Even if a customer hears troubling news about a stock mutual fund in which he or she has invested, there may be little advantage to redeeming shares immediately because he or she will receive only a pro rata share of the NAV. There may be a marginal advantage nonetheless for participating in a run on a mutual fund because of concern that the NAV will decrease during a run as a result of emergency liquidation of assets to meet customer demand. However, the highly safe asset base and highly liquid nature of MMFs, which are even more safe and more liquid under the SEC's 2010 Rule 2a-7 amendments, make such liquidations extremely rare occurrences. Furthermore, new SEC rules give the boards of MMFs the ability to suspend redemptions if necessary in the context of a liquidation of the fund, and the SEC can authorize funds to suspend redemptions under certain conditions.¹⁰⁰

By the same token, MMFs have increased stability because, unlike banks that generally have thousands if not millions of creditors, they have shareholders. The interests of these creditors and bank managers are not always aligned, but in an MMF, no such conflict exists.¹⁰¹ Whereas a depositor's returns are largely fixed and irrespective of portfolio composition, MMF investors receive returns based on the total performance of the fund.¹⁰² Further, the role of the fund board in serving the interests of the shareholders is another distinguishing feature as compared to banks, since both the fund's board and the fund's advisor owe a fiduciary duty to the fund's shareholders, requiring that they act in the best interests of fund shareholders. These same inherent protections are not afforded a bank depositor.¹⁰³

⁹⁹ McCabe et al., *supra* n. 39.

¹⁰⁰ Macey, *supra* n. 7, 166-7.

¹⁰¹ See Jens Hilscher and Elif Sisli-Ciamarra, "Conflicts of Interest on Corporate Boards: the effect of creditor-directors on acquisitions," 2011, for an example of such conflict. www.brandeis.edu/global/pdfs/news/HilscherSisliPaper.

¹⁰² Charles K. Whitehead, Reframing Financial Regulation, 90 B.U. L. Rev. 1, 41-42 (2010).

¹⁰³ Macey, *supra* n. 7, 164.

5. *MMFs Do Not Cause Credit Markets to Seize Up (But Bad Government Policy Can)*

Finally, it is a misconception that money market funds create systemic risk by causing credit markets to “seize up.” In fact, it is not MMFs, but issuers (i.e., borrowers who sell debt securities to MMFs on a short-term basis and lend it on a long-term basis) who create the danger, particularly in a rising interest rate environment when they may not be able to borrow at a rate that allows them to earn a positive spread between their short-term liabilities and their long-term assets.

This sort of crisis, which is what Lehman Brothers experienced, is a “crisis” only for someone who is totally dependent on rolling over short-term debt to fund a predictable obligation. MMFs do not create that risk, borrowers do. In fact, MMFs were actually used to increase the availability of credit during the 2008 crisis.¹⁰⁴ Further regulation has been suggested that increases costs to MMFs in order to protect short-term borrowers from the risk of rapid cash outflow. However, this shift of a cost to MMFs that would usually be shouldered by the borrowers themselves is a bad idea for both moral hazard and market distortion reasons. As will be discussed in the next section, far from causing markets to seize, funds instead provide liquidity and stabilization to the financial system.

MMFs serve as a substitute for separately-managed accounts that would invest cash directly in money market instruments, and, if MMFs are limited, then some cash would flow to banks, bank-sponsored Short Term Investment Funds (“STIFs”) and private funds. In this way, dampening the competitiveness of MMFs would not address the “flight to quality” effect in a downturn and impact on short-term credit markets, but would actually make freezes even worse – investors would be in riskier products and have all the more impetus to flee during any sign of a downturn.

To conclude, the assets held by MMFs are more liquid, more transparent, easier to value, and better match the liabilities in terms of maturity and liquidity than assets held by banks and other financial institutions. As a result of these qualities, MMFs require less capital and are easier to regulate. They also require no government support, implicit or explicit, to function properly. They offer greater efficiency than individually-managed investment portfolios that invest in money market instruments. They permit the assets to be deployed in the economy while still remaining stable without government support.

104 See James Barth, “The rise and fall of the U.S. mortgage and Credit Markets” (2009) p. 239-240.

V. HOW A THRIVING MMF INDUSTRY HELPS TO STABILIZE OUR FINANCIAL SYSTEM

The inherently stabilizing characteristics of MMFs, as discussed above, help to steady the economy as a whole. As long as a substantial portion of investors' funds remain in MMFs, they will continue to reduce systemic risk. On the other hand, regulation that will shift funds away from MMFs will only diminish these positive effects as investors flee to banks, short-term investment funds (STIFs), and less-regulated, less-transparent private funds, where they will be invested in riskier assets, require greater government oversight, and lead to great economic instability. As a vital alternative to individually-managed accounts investing in money market accounts, MMFs enable greater efficiency than these other venues, as they pool investors' resources so that they might enjoy returns of high-quality, low-risk securities while providing the liquidity investors need to invest their funds elsewhere. The following sections discuss the benefits of a robust MMF market on the financial system.

A. *MMFs Diversify Risk by Reducing Pressure on the FDIC*

Due to the low risk associated with money market assets, deposit insurance has never been considered necessary for MMFs.¹⁰⁵ As such, MMFs serve a vital economic purpose of relieving pressure on the FDIC insurance fund. Government support is not infinite; the FSLIC collapsed as well as the state-run deposit insurance funds of Maryland and Ohio. It is quite possible that the FDIC may one day follow suit. The pressure on the FDIC generally increases during times of crisis, and the last few years have been no exception. Despite some commentators belief that the financial crisis is winding down, banks across the country continue to collapse at an alarming rate. Approximately 150 FDIC-insured depository institutions failed in 2010 alone.¹⁰⁶ MMFs have helped to ameliorate this pressure.

For decades, MMFs have provided an attractive alternative to bank checking accounts. Without eliminating checking accounts, MMFs reduce the systemic risk of a sudden panic by ensuring that at any given time some people's core savings will invariably be tied up in savings accounts while others will be sitting primarily in money market mutual funds.¹⁰⁷ This removes billions of dollars from the FDIC's purview.

¹⁰⁵ Macey, *supra* n. 7, 138.

¹⁰⁶ Failed Bank List, <http://www.fdic.gov/bank/individual/failed/banklist.html>.

¹⁰⁷ Macey *supra* n. 7 at 153.

In addition to their role in relieving pressure on the FDIC, MMFs more generally provide value to the overall financial system by compensating for shortcomings in bank regulation. Government guarantees of bank liabilities are less helpful to depositors than they appear, since some, if not all, of the benefits of credit enhancement are eroded by the lower interest rates banks must pay for deposits. In fact, the primary beneficiaries of the regulatory system are the banks themselves, since government guarantees of their liabilities enhance their credit and lower their costs of doing business.¹⁰⁸ In this way, MMFs provide a viable alternative to a problematic system.

Regulators should promote alternatives to savings accounts to maximize yield for investors as well as to reduce pressure on the finite assets of the FDIC. MMFs provide such an alternative. By competing directly with banks for deposits, MMFs hedge the social costs of deposit insurance as well as decrease the likelihood that widespread failure in the banking system would deplete the FDIC's funds and require another government bailout of the federal banking insurance industry. Any strides towards moving funds out of MMFs will have the opposite effect.

B. MMFs Can Reduce Systemic Risk as Long as They are Subject to Their Own Regulatory Scheme

Since MMFs hold fundamentally different assets than commercial banks, they provide an important method for regulators and policy-makers to reduce the risks associated with the banking system. In this way, money market mutual funds are a critical mechanism for reducing systemic risk in the American financial system.¹⁰⁹

Although there are many definitions of systemic risk, a common factor is that a trigger event causes a chain of bad economic consequences, typically a chain of financial institution and market failures. This is why legislation purporting to regulate systemic risk tends to follow hard on the heels of financial crises and market disasters, most notably with the passage of the Banking Act of 1933 (the Glass-Steagall Act), the Securities Act of 1933, the Securities Exchange Act of 1934 at the height of the Great Depression, and the recent passage of the Dodd-Frank Act.¹¹⁰ Steven Schwarcz has adopted the following definition of systemic risk:

108 Timothy Curry & Lynn Shubut, *The Cost of the Savings and Loan Crisis: Truth and Consequences*, FDIC Banking Rev. Dec. 2000, at 19-20. http://www.fdic.gov/bank/analytical/banking/2000dec/brv13n2_2.pdf. Macey, *supra* n. 7, 154.

109 Macey, *supra* n. 7, 155.

110 Jonathan R. Macey, *Some Observations in the Context of Systemic Risk*, in *Brookings-Wharton Papers on Financial Services* 405 (Robert E. Litan & Anthony M. Santomero eds., 1998).

the risk that (i) an economic shock such as market or institutional failure triggers (through a panic or otherwise) either (X) the failure of a chain of markets or institutions or (Y) a chain of significant losses to financial institutions, (ii) resulting in increases in the cost of capital or decreases in its availability, often evidenced by substantial financial-market price volatility.¹¹¹

Too much homogeneity among risk management strategies of financial institutions can increase systemic risk.¹¹² Simply put, “[i]f firms have the same strategies and similar portfolios, market shocks can cause the firms to sell the same types of assets at the same time to cover their positions.”¹¹³ In turn, “[a] widespread sell-off would cause values of these assets to plummet and trigger a sell-off of yet another class of assets. Homogeneity of risk management and models can thus lead to spiraling market declines.”¹¹⁴ In each of the three major crises of the last decade, we have witnessed the dangerous effects of homogenous risk management practices, where “competition among the major investment banks can periodically produce a mad momentum that sometimes leads to a lemmings-like race over the cliff. This is essentially what happened in the period just prior to the 2000 dot-com bubble, again during the accounting scandals of 2001-2002, and most recently during the subprime mortgage debacle.”¹¹⁵ Some scholars have posited that excessive regulation may perverse-ly create such homogeneity by forcing different organizations to behave more similarly and/or hindering the competitiveness of alternatives.¹¹⁶

Advocates of bank-like regulation of money market mutual funds often cite these funds’ apparent similarities to checking accounts in banks. Paul Volcker, former Federal Reserve Chairman and head of President Obama’s Economic Recovery Advisory Board, has said that if MMFs “are going to talk like a bank and squawk like a bank, they ought to be regulated like a bank.”¹¹⁷ Such a superficial view misses the key differences between the two.

Imposing identical regulatory schemes on entities with significant dif-ferences in institutional structure would be a mistake. Even leaving aside the

¹¹¹ Steven L. Schwarcz, *Systemic Risk*, 97 Geo. L. J. 193, 204 (2008).

¹¹² Eric F. Gerding, *Code, Crash, and Open Source: The Outsourcing of Financial Regulation To Risk Models and the Global Financial Crisis*, 84 Wash. L. Rev. 127, 184 (2009).

¹¹³ *Id.*

¹¹⁴ *Id.*

¹¹⁵ John C. Coffee & Hillary A. Sale, *Redesigning The SEC: Does The Treasury Have A Better Idea?*, 95 Va. L. Rev. 707, 745 (2009). *See also* Wilmarth, *The Transformation*, Arthur E. Wilmarth, Jr., *The Transformation of the U.S. Financial Services Industry, 1975-2000: Competition, Consolidation, and Increased Risks*, 2002 U. Ill. L. Rev. 215, 345, 349 (2002) (stating that in light of uncertainty and asymmetric information in the OTC derivatives market, traders “often conclude that the safest strategy is to mimic observed positions taken by other major traders”).

¹¹⁶ *See, e.g.*, Carol Alexander, *The Present and Future of Risk Management*, 3 J. Fin. Econometrics 3 (2005); Jonathan Macey, *Regulatory McCarthyism*, Wall St. J., Oct. 25, 2006, http://online.wsj.com/article/SB116165420539301595.html?mod=opinion_main_commentaries.

¹¹⁷ Shefali Anand, *Money-Fund Bailout Has Been Winner*, Wall St. J., Feb. 17, 2009, at C1.

many fundamental discrepancies discussed above, banks and money market mutual funds have irreconcilable structural differences requiring varied regulatory approaches. For instance, MMF managers have different incentive structures, and therefore different agency costs from traditional bank managers. As aforementioned, MMF investors' returns are based on the total performance of the fund, whereas a depositor's returns are largely fixed, irrespective of portfolio composition.¹¹⁸ Further, one of the principal arguments justifying bank supervision is the depositor-shareholder agency conflict; MMFs present no such issue. While depositors have much less access to information than shareholders and are generally powerless to control shareholder behavior, MMF investors *are* shareholders. Whereas depositors in a bank cannot easily gain information about the bank's liabilities, MMFs make full holdings publicly available on a monthly basis under the recent Rule 2a-7 amendments.¹¹⁹

Imposing homogeneity would not only make little sense in light of the deep structural differences between banks and MMFs, it would make the financial system more vulnerable to shock by removing an alternative to banks.

C. *MMFs Provide Liquidity*

i. *Commercial Paper*

In a speech at the Council on Foreign Relations on March 10, 2009, Federal Reserve Chairman Ben Bernanke noted that money market mutual fund regulation reform is particularly important in light of "the crucial role they play in the commercial paper market."¹²⁰ Indeed, money market mutual funds provide a significant benefit to the economy by investing in commercial paper. MMFs are by far the largest holders of commercial paper, owning almost 40% of all outstanding commercial paper.¹²¹

The trillion dollar commercial paper is often viewed as a lower-cost alternative to bank loans. In commenting on the SEC Staff's advocated changes to Rule 2a-7 and in particular on a proposal to prohibit MMFs from investing in securities that receive the second highest credit rating, the U.S. Chamber of Commerce stated that such a prohibition, "could decrease borrowing flexibility and elevate borrowing costs for [issuers of second-tier rated securities], thereby

118 Charles K. Whitehead, *Reframing Financial Regulation*, 90 B.U. L. Rev. 1, 41-42 (2010).

119 Macey, *supra* n. 7, 157.

120 Ben S. Bernanke, Chairman, Fed. Reserve Bd., *Financial Reform to Address Systemic Risk*, Speech before the Council on Foreign Relations in Washington, D.C. (Mar. 10, 2009), <http://www.federalreserve.gov/newsevents/speech/bernanke20090310a.htm>.

121 See Fed. Reserve Bd., *Statistical Release Z.1: Flow of Funds Accounts of the United States: Flows and Outstandings Fourth Quarter 2008*, at 86 tbl.L.208 (Mar. 12, 2009), www.federalreserve.gov/releases/z1/20090312/z1.pdf. (as cited in Macey, *supra* n. 5, 158).

restricting their ability to meet their short-term cash needs, increasing their cost of capital, and driving up consumer costs.”¹²² Once a business becomes established and builds a high credit rating, it is often cheaper to draw on a commercial paper than on a bank line of credit.¹²³ Large investors such as MMFs purchase commercial paper because it is relatively safe and often comports with the minimal credit risk determinations made by investment advisors to MMFs under Rule 2a-7.¹²⁴

Commercial paper also has short maturities (typically 90 days or less), and most issuers have strong balance sheets and good credit ratings.¹²⁵ As such, defaults on high-quality commercial paper are extremely rare, which explains why the collapse of Lehman Brothers, which issued massive amounts of commercial paper, had dramatic consequences for the commercial paper market. Before Lehman’s collapse, only eight issuers had defaulted on commercial paper – three in 1989, four in 1990, and one in 1991.¹²⁶

As of July 19, 2012, the market stands at \$982.5 billion in size on a seasonally adjusted basis, having fallen substantially from a peak of \$2.2 trillion in July 2007.¹²⁷ Financial markets depend on the availability of a market for commercial paper; and if the market suffers further, it will become more costly and difficult for companies to obtain short-term financing.

ii. *Repurchase Agreements*

Money market mutual funds play a similarly vital role in the market for repurchase agreements.¹²⁸ Repurchase agreements (repos) are contracts for the sale and future repurchase of a financial asset. On the repurchase date, the seller repurchases the asset at the same price at which he sold it, and pays interest for the use of the funds. Although legally a sequential pair of sales, in effect a repo is a short-term interest-bearing secured loan. The securities that the MMF purchases may be considered to be collateral for the loan. The securities most

¹²² Sec’y of the U.S. Sec. and Exch. Comm’n, Comment letter from the U.S. Chamber of Commerce and Joint Treasurer Signatories to Elizabeth M. Murphy, (Sept. 24, 2009), <http://www.sec.gov/comments/s7-11-09/s71109-150.pdf>.

¹²³ Macey, *supra* n. 7, 158.

¹²⁴ *Id.*

¹²⁵ Leland Crabbe & Mitchell A. Post, The Effect of SEC Amendments to Rule 2A-7 on the Commercial Paper Market, Fin. & Econ. Discussion Series 1 (1992) (“hereinafter Crabbe & Post”).

¹²⁶ Macey, *supra* n. 7, 159.

¹²⁷ Chris Reese, Money Markets – US Commercial Paper Market Grows on the Weak, Reuters (July 19, 2012); Anusha Shrivastava, Commercial Paper Down in Week Ended March 17, Dow Jones Newswire (Mar. 18, 2010).

¹²⁸ For the five-year period from 2005-2009, on average, repurchase agreements comprised 10.4% of the total net assets of taxable, non-government money market funds. Inv. Co. Inst., 2010 Investment Company Fact Book: A Review of Trends and Activity in the Investment Company Industry 166 tbl.43 (2010), http://www.ici.org/pdf/2010_factbook.pdf.

frequently used in connection with repurchase agreements are Treasury securities and other U.S. government securities.¹²⁹

When testifying before the Financial Services Committee of the U.S. House of Representatives, Treasury Secretary Timothy Geithner described overnight repos as being “of critical importance to the economy because it is the funding basis for the traditional banking system. Without it, traditional banks will not lend and credit, which is essential for job creation, will not be created [sic].”¹³⁰

The repurchase market provides MMFs and other institutions with an attractive opportunity to invest their cash balances on a day-to-day basis. Such investments direct short-term funds to their area of greatest need at a low cost, thereby improving the overall efficiency of the financial markets and the economy. Because most repo transactions have a one-day maturity, they are extremely liquid and, as such, enable MMFs and other institutions to deploy cash overnight on a secured basis while enabling the other party to the transaction to obtain overnight financing.¹³¹ Timely performance of the seller’s obligation to repurchase is critical to these institutions, which require the funds to meet other financial obligations. “For such entities as state and local governments, public and private pension funds, money market and other mutual funds, banks, thrift institutions, and large corporations, repos have become a vital tool of cash management.”¹³²

Like commercial paper, repos also are important in the broader financial markets. Repos are the principal method by which primary U.S. government securities dealers finance their portfolios.¹³³ As of August 2012, the repo market stood at \$1.8 trillion, the lion’s share of which were U.S. Treasury securities.¹³⁴

The repo market plays an important role in the conduct of monetary policy as well. Repos and reverse repos have long been a principal method by which the Federal Reserve regulates the supply of funds.¹³⁵ The Federal Open Market Committee, through the Trading Desk at the Federal Reserve Bank of New York, makes extensive use of repos in regulating the supply of funds in the execution of monetary policy.¹³⁶

129 SIFMA 2012 Repo Fact Sheet <http://www.sifma.org/research/item.aspx?id=8589939674>.

130 Gary Gorton, Questions and Answers about the Financial Crisis: Prepared for the U.S. Financial Crisis Inquiry Commission (2010), <http://online.wsj.com/public/resources/documents/crisisqa0210.pdf>.

131 Financial Crisis Inquiry Commission, Preliminary Staff Report: Shadow Banking and the Financial Crisis, Fin. Crisis Inquiry Comm’n 20 (May 4, 2010) <http://fcic.gov/reports/pdfs/2010-0505-Shadow-Banking.pdf>.

132 Staff of S. Comm. on the Judiciary, Omnibus Bankruptcy Improvements Act of 1983, S. Rep. No. 98-65, at 45 (1983).

133 Dept. of the Treasury, SEC, and Bd. of Governors of the Fed. Reserve Sys., Joint Report on the Government Securities Market, at A-11 (1992).

134 Jeff Kearns, “Fed States it Will Push to Reduce Repo Market Risk,” Bloomberg Business Week (August 2, 2012) (<http://www.bloomberg.com/news/2012-08-02/fed-says-it-will-push-to-reduce-repo-market-risk.html>); Fed. Res. Bank of N.Y., Financing By Primary U.S. Government Securities Dealers, www.ny.frb.org/markets/statistics/deal.pdf; see also NY Fed study shows need for ‘repo’ backstop facility, Reuters, April 22, 2010.

135 S. Rep. No. 98-65, at 46.

136 *Id.*

The efficient functioning of the repo market also facilitates substantial involvement by foreign central banks, monetary authorities, and international institutions in financing the U.S. public debt. The New York Fed maintains accounts for approximately 140 foreign central banks, monetary authorities, and international institutions. With such large institutional holdings of the dollar, it has become important to the orderly financing of the public debt that these institutions purchase U.S. government securities. Therefore, the existence of an efficient repo market in government securities enhances the attractiveness of the U.S. dollar as an international reserve currency.¹³⁷

The following proposals threaten to undermine the MMF industry – and these stabilizing forces along with it.

VI. SIFI DESIGNATION: TREATING MMFS LIKE BANKS

The Dodd-Frank Act authorizes the FSOC to subject certain nonbank financial companies to stringent rules having their origins in banking regulation. Called systemically important financial institutions (SIFIs), those so designated would be subject to “risk-based capital standards, liquidity requirements, overall risk management requirements, resolution plan and credit exposure report requirements, and concentration limits.”¹³⁸ In addition, the Fed may also prescribe “additional” prudential standards that include a contingent capital requirement, enhanced public disclosures, short-term debt limits, and such other prudential standards as the Fed determines are appropriate.¹³⁹

Not only did the Dodd-Frank Act’s legislative history suggest that Congress did not contemplate MMFs being considered SIFIs,¹⁴⁰ but they do not fit the DFA’s criteria for designation. MMFs rely upon neither leverage nor off balance sheet exposure, as they are risk-averse entities investing without leverage in high quality investments and without resorting to “off-balance sheet” arrangements.¹⁴¹ They are already highly regulated by the SEC and face strict liquidity, disclosure, and risk management requirements, as well as diversification and concentration limits.¹⁴²

If the Fed were to “apply the same set of enhanced prudential standards to covered companies that are bank holding companies and covered companies that are nonbank financial companies,” it would run the SIFI-designated

¹³⁷ Macey, *supra* n. 7, at 162.

¹³⁸ Dodd-Frank Act Section 165.

¹³⁹ Melanie L. Fein Money Market Funds, Systemic Risk and the Dodd-Frank Act, Presentation Before the American Enterprise Institute 71 (June 28, 2012).

¹⁴⁰ 156 Cong. Rec. S5902-5903 (Jul. 15, 2010).

¹⁴¹ Melanie L. Fein, Money Market Funds, Systemic Risk and the Dodd-Frank Act, Presentation Before the American Enterprise Institute (June 28, 2012).

¹⁴² *Id.*

MMFs into the ground.¹⁴³ Ironically, although the Reserve Primary Fund indeed broke the buck in September 2008, so did a stable \$1.00 NAV investment pool, which was not an MMF but rather the BNY Institutional Cash Reserves fund, a bank-sponsored stable value securities lending collateral pool.¹⁴⁴ Further, Wachovia's bank common trust fund likewise liquidated and a State Street fund broke the buck, leading the SEC to take enforcement action against the bank sponsor.¹⁴⁵ These were not MMFs regulated by the SEC, but instead were bank-sponsored fiduciary funds regulated by the federal bank regulators under banking rules. It is unclear why regulating MMFs like banks would reduce vulnerability. If anything, it heightens it.

Capital buffers and redemption requirements would likewise be moves that would morph MMFs into bank-like entities. Such requirements would diminish MMFs' competitive advantages and rob the market of the benefits that have made the funds so popular. MMFs are structured to offer liquidity without imposing the costs of reserve requirements or federal deposit insurance.¹⁴⁶ Reserve requirements constitute a significant tax on the operation of depository institutions because they do not generate income. Without such burdens, MMFs have thrived, providing investors with alternatives and the flexibility to optimize their financial needs. To burden funds – which are already highly liquid, well capitalized, and comprised of high-quality assets – with capital buffers and redemption requirements, would be of next to no benefit in making the already-stable MMFs even more so. Further, it would increase their costs, which would in turn be passed along to investors, harming their interests, making banks relatively more attractive, and destabilizing the currently diversified investment market.

If treated like banks, they would lose many of their unique features, thereby reducing investors' options by taking alternatives off the table and leading to greater homogeneity and less stability. Investors may return to the inefficiency of individually managed investment accounts, or, more likely – due to the difficulties inherent in investing individually in money market instruments – flow to riskier banks, or less transparent and less regulated options such as privately offered funds. The financial system is not one of disparate silos. All of these alternatives are interconnected and damaging MMFs' competitiveness will mean that the money will flow instead to products that lack MMFs' qual-

¹⁴³ Federal Reserve Board, Enhanced Prudential Standards and Early Remediation Requirements for Covered Companies, 77 Fed. Reg. 594, 597 (Jan. 5, 2012).

¹⁴⁴ Jill Fisch and Eric Roiter, A Floating NAV for Money Market Funds: Fix or Fantasy, U. Penn Institute for Law and Economics Research Paper, at 28.

¹⁴⁵ ICI Report *supra* n. 21, at 63.

¹⁴⁶ Michael Mussa, "Competition, Efficiency, and Fairness in the Financial Service Industry," in Deregulating Financial Services: PUBLIC POLICY IN FLUX 121, 142-43 (George G. Kaufman & Roger C. Kormendi, eds., 1986).

ity of assets, avoidance of leverage, absence of derivatives, and high liquidity. If history serves as a predictor, the last time regulators attempted to diminish MMFs' advantages in favor of banks, it led to the savings and loan crisis. In these ways, MMFs serve as the higher quality substitute to riskier options. To lessen market diversity and drive assets back into banks would destabilize the financial system, despite regulators' best intentions.

The weight of evidence in the SEC's comment file on the Report of the President's Working Group on Money Market Fund Reform, along with the paucity of real evidence presented by regulators (let alone their distortions and exaggerations), suggests that a move by FSOC would be motivated at worst by politics or turf battles and at best by bad policy. As such, it would certainly be subject to legal challenge.

VII. FLOATING NAV

Advocates for a floating NAV contend that a stable NAV is an artificially-concocted "myth" and that allowing the NAV to float "will curtail panic redemptions because investors will no longer fixate on whether an MMF deviates from a \$1.00 per share."¹⁴⁷ However, Professors Jill Fisch and Eric Roiter write that 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."¹⁴⁸ They argue that "a floating NAV is misguided," concluding this to be the case due to three main reasons:

First, under current law, money market funds can maintain a \$1.00 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.¹⁴⁹

Even the Staff of the Federal Reserve Bank of New York agrees that "the floating NAV option as a *standalone* fix for the vulnerability of MMFs to runs has some important drawbacks, most notably the possibility that elimination of the 'hallmark feature of the funds would be tantamount to 'eviscerating'

¹⁴⁷ Jill Fisch and Eric Roiter, A Floating NAV for Money Market Funds: Fix or Fantasy, U. Penn Institute for Law and Economics Research Paper, at 32.

¹⁴⁸ *Id.* at 30.

¹⁴⁹ *Id.* at 1.

them”¹⁵⁰ – thereby depriving investors of the MMF option and driving assets back to the unstable banks.

A stable NAV is vital to MMFs’ ability to efficiently provide stable liquidity to its investors. Many institutional investors face legal or other constraints that preclude them from investing their cash in funds without a stable NAV. For example,

corporations may have board-approved policies permitting them to invest operating cash (balances used to meet short-term needs) only in pools that seek to maintain a stable NAV. Indentures and other trust documents may authorize investments in money market funds on a similar assumption. Many state laws and regulations also authorize municipalities, insurance companies, and other state regulated entities to invest in stable NAV funds, sometimes explicitly including funds operating in compliance with Rule 2a-7.¹⁵¹

Due to such guidelines and laws, many would be simply unable to invest in MMFs with a floating NAV. Still others, while technically able to invest, would nevertheless choose not to do so. A stable NAV also offers significant convenience in terms of tax, accounting, and recordkeeping. Returns may be distributed to investors as income, rather than forcing them to track gains and losses.¹⁵² A stable NAV also greatly increases the value and convenience of MMFs for individual retail investors, who may enjoy same-day settlements as well as check writing, ATM access, Fedwire transfers, and electronic check payment processing all tied to their stable \$1.00/share NAV.¹⁵³

Currently, all mutual fund pricing relies on estimates and rounding. In fact, under the Investment Company Act, a redeeming shareholder is paid only “approximately his proportionate share of the issuer’s current net assets or the cash equivalent thereof.”¹⁵⁴ The imprecision in calculating NAVs is particularly acute because the very short term assets, such as repurchase agreements, commercial paper and bank CDs, that MMFs hold are usually held to maturity. Thus, unlike that for equity securities, there is no secondary market on which to base NAV calculations. It was for this reason that MMFs’ traditional custom and practice was to reject standard NAV pricing and instead to employ historical cost pricing. As the capital markets changed to include more assets sold at

¹⁵⁰ McCabe, et. al, *supra*, n. 39 at 53.

¹⁵¹ Testimony of Paul Schott Stevens, President and CEO Investment Company Institute, Before the Committee On Banking, Housing And Urban Affairs United States Senate, 31-2 (June 21, 2012) (citing *See* Investment Company Institute, Report of the Money Market Working Group, Appendix D (March 17, 2009), available at http://www.ici.org/pdf/ppr_09_mmwg.pdf.)

¹⁵² Testimony of Paul Schott Stevens at 32.

¹⁵³ *Id.*

¹⁵⁴ 15 U.S. C. § 80a-2(32).

a discount that would be redeemed at par, MMFs' pricing policies migrated to the use of an historical cost adjusted for amortization method, pursuant to which assets would increase in value over time until maturity. This approach was questioned in 1977, when the SEC considered requiring judgmental input on the part of directors" to replace the "mechanical," formulaic pricing methodologies in use at the time (historical cost and historical cost adjusted for amortization).¹⁵⁵

The SEC's approach proved highly problematic to implement, and the SEC's 1982 Rule 2a-7 was specifically designed to deal with the special pricing issues of MMFs. This rule was, in essence, a return to the very historical cost adjusted for amortization method that the SEC previously had considered rejecting. This, in turn, enabled MMFs to maintain a stable NAV. If the board of the mutual fund determines that the historical cost adjusted for amortization method is inaccurate, it must adjust the value of the MMF's assets, and calculate the NAV on the basis of the adjusted NAV calculation if the board's "shadow" NAV varies by more than ½ of 1% from the standard \$1.00 NAV.

Those who criticize the amortized cost methodology of calculating MMF NAVs as insufficiently precise need to understand that the proposed alternative "mark-to-market" accounting is likewise imprecise, given the lack of real-time asset prices for many of the portfolio assets. In light of MMFs practice of holding short-term assets to maturity, the amortization method produces the appropriate valuation. Moreover, amortized cost is the normal form of accounting for assets that the holder does not intend to sell and will hold to maturity. Banks use amortized cost for much of their portfolios, as do bank short-term investment funds. The assumption that you will hold to maturity (and amortized cost accounting is appropriate) is bolstered if it is a very short-term, high-quality debt instrument, and further bolstered by the fact that MMFs have so much liquidity that it is highly unlikely that an MMF would need to sell the asset before maturity.

A stable \$1.00 NAV provides convenience and simplicity to investors and managers alike, boosting MMFs' efficiency with regard to tax, accounting, and recordkeeping. Unlike other mutual funds, MMFs are used primarily as a cash management tool, which means that large transactions flow through them every day. Without a stable NAV, many investors will bolt for other cash management entities in order to minimize tax, accounting, and recordkeeping burdens. Likewise, MMFs would no longer serve as an attractive industry for corporate and governmental treasurers, money managers, brokers, trustees,

¹⁵⁵ See *Proposal Concerning Valuation of Short Term Debt Instruments Owned by Registered Investment Companies Including Money Market Funds*, SEC Release No. IC-8757 (Apr. 15, 1975) (final rule adopted in 1977).

escrow agents, and governmental treasurers who need the stability and predictability provided by MMFs. In fact, many of these investors would be barred by regulation or agreement from investing in MMFs if MMFs could no longer offer a stable NAV. As such, if the NAV was instead allowed to float, funds would flow out of MMFs into the banking system. This would increase regulators' burdens, deprive the capital markets of liquidity, particularly in the vital commercial paper market, and increase significantly the contingent liability of the FDIC's Bank Insurance Fund.

Fisch and Roiter paint a picture of the vicious cycle that a floating NAV would precipitate:

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. 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.¹⁵⁶

In this way, regulations forcing MMFs to employ a floating NAV would backfire, weakening financial stability.

At the Investment Company Institute's Mutual Fund and Investment Management Conference in Phoenix in March 2010, Paul Schott Stevens, the organization's president and chief executive officer, criticized the SEC's advocating for a floating NAV. Stevens emphasized the ICI's strong opposition to eliminating a steady net asset value of \$1.00 per share, a fundamental feature of money markets.¹⁵⁷ "Make no mistake: forcing these funds to 'float' their NAV will destroy money market funds as we know them," Stevens said. "It will penalize individual investors and exact a high price in the American economy. But it will not – repeat, not – reduce risks to the financial system. By any measure, it is a bad idea."¹⁵⁸

¹⁵⁶ Fisch and Roiter *supra*, n. 144 at 31.

¹⁵⁷ Paul Schott Stevens, President and CEO, Investment Company Institute, Weathering the Worst: Making Money Market Funds Even Stronger (Mar. 15, 2010), available at http://www.ici.org/policy/current_issues/10_mfim_conf_pss_spch.

¹⁵⁸ *Id.*

Stevens added that mutual funds that float their NAV are not immune to redemption pressure, noting that floating-value funds “lost half their assets in the course of 2008... Clearly, the experience of these other funds demonstrates that a fluctuating per-share value would not eliminate the possibility of wholesale redemptions from money market funds during a future crisis.”¹⁵⁹ In light of such facts, a floating NAV is not the stabilizing force its advocates believe it to be.

Permitting MMFs to use the amortized cost pricing valuation method pursuant to Rule 2a-7 further enabled them to compete with banks. If money market mutual funds are required to price their assets like a regular mutual fund, their important role in the economy will be diminished, thereby making the capital markets less efficient and causing social welfare to decline as corporations and individuals are forced into less attractive short-term investment vehicles for their funds. Requiring money market mutual funds to float their NAV would effectively destroy them entirely.¹⁶⁰ As a recent Federal Reserve Board Staff Working Paper put it, imposing a floating NAV would not remove the risk of MMF “runs” but instead “lead to a precipitous decline in MMF assets and in these funds’ capacity to provide short-term funding.”¹⁶¹

VIII. MINIMUM BALANCE AT RISK REQUIREMENTS

Regulators have proposed holdback provisions and “minimum balance at risk” requirements in an attempt to prevent runs. They seek to remove the “first mover” advantage for investors who seek to remove their funds ahead of a perceived crisis. However, these proposals “will not only fail to achieve regulators’ objectives of preventing a run or loss, but will absolutely destroy the MMF industry entirely in the process.”¹⁶²

Holdback provisions and minimum balance at risk provisions would be ineffective. By their very nature, firestorm runs are fear-based episodes. Investors will not be dissuaded from withdrawing, they will merely withdraw as much as possible. World Bank, IMF, and academic research concludes that investors will not remain invested in a troubled institution, and the run will continue

¹⁵⁹ *Id.*

¹⁶⁰ Macey, *supra* n. 7, 173.

¹⁶¹ McCabe, et. al., *supra*, n. 39 at 6.

¹⁶² Treasury Securities, Inc. *Proposed Holdback Requirement for Money Market Mutual Funds* 17, (Apr. 2012), at <http://www.sec.gov/comments/4-619/4619-172.pdf>.

until it has run its course.¹⁶³ “Suggestions that exit gates or fees would prevent or slow a run ignores 150 years of evidence”.¹⁶⁴

In fact, a holdback’s required “look ahead” may actually precipitate a run. It merely pushes up the first mover advantage so that investors are looking to the end of the look-ahead period to see if it is possible that a crisis may hit. If they perceived a potential threat exists down the road, such rules incentivize them to sell right away.¹⁶⁵

Some compare the holdback to banks’ minimum balance requirement. This is a false analogy, however, since minimum balances at banks are a means of avoiding fees – but the funds are nevertheless available for withdrawal.¹⁶⁶ A holdback or redemption fee, on the other hand, hurts liquidity by making that portion of the MMF balance unavailable. The Federal Reserve Board Staff’s recent Working Paper agrees, asserting,

“A redemption fee that is charged in all circumstances would negate the principal stability that is critical for many MMF investors ... [and] an unconditional delay of every redemption would undermine the liquidity of shares that is established in the Investment Company Act of 1940 for all mutual funds.... [and] [e]ither change, if applied at all times, would likely have impacts similar to the consequences of a floating NAV.”¹⁶⁷

In fact, the authors offer that “conditional fees or restrictions might increase the vulnerability of MMFs to runs.”¹⁶⁸ The Staff Report not only posits that a small buffer would prove ineffective in preventing runs, but also contends that capital imposition might create moral hazard by “blunt[ing] MMF portfolio managers’ incentives for prudent risk management and investors’ incentives to monitor risks in their funds.”¹⁶⁹ It cedes that building a larger buffer would pose complications, and potentially shift assets to other less-stable institutions.¹⁷⁰

Ironically, while the FRBNY agrees with such critiques, it offers up a related approach. The FRBNY advocates a “Minimum Balance at Risk,” which

163 Huberto M. Ennis and Todd Keister, “Run Equilibria in the Green-Lin Model of Financial Intermediation,” May 4 2009; Lee J. Alston, Wayne A. Grove, and David C. Wheelock, “Why Do Banks Fail? Evidence from the 1920s,” 1994; Clifford F. Thies and Daniel A. Gerlowski, “Deposit Insurance: A History of Failure,” 1989 (as cited in Treasury Securities, Inc. *Proposed Holdback Requirement for Money Market Mutual Funds* 5, (April 2012), at <http://www.sec.gov/comments/4-619/4619-172.pdf>).

164 Treasury Securities, Inc. *Proposed Holdback Requirement for Money Market Mutual Funds* 6, (April 2012), at <http://www.sec.gov/comments/4-619/4619-172.pdf>.

165 *Id.*

166 *Id.*

167 McCabe, et. al, *supra* n. 39 at 7.

168 *Id.* at 7.

169 *Id.* at 6.

170 *Id.*

seeks to deter runs by penalizing investors who seek to redeem from troubled MMFs by potentially withholding principal. This approach presents many of the same deep flaws as other holdback and redemption fee proposals:

[I]t will punish MMF investors by layering costs and operational impediments upon their access to funds; it will make MMFs unavailable to investors who are precluded by state law or fiduciary requirements from investing in funds with minimum balance or subordination features; it will, in light of these costs and inefficiencies, drive MMF investors to less regulated and less transparent cash management vehicles or to systemically important banks – in either case increasing systemic risk; and it will reduce the participation of MMFs in the market for commercial paper and state and local government debt, thereby increasing funding costs for corporations and public entities.¹⁷¹

Regulations that shackle investors not only inhibit the voluntary movement of capital but also set the wrong tone for what is supposed to be a free market. Such measures would inhibit flight to quality, thereby increasing investor risk and making the financial system less flexible in responding to shocks.

IX. CAPITAL REQUIREMENTS

SEC Staff has advocated imposing capital requirements on MMFs in an attempt to reduce the threat of runs. Akin to the capital requirement at banks, under the proposed rules, MMFs would be required to accumulate a capital base inside the fund.

First, such a requirement would lead to reduced transparency and great confusion. In the event that the capital “buffer” needed to be drawn upon, the MMFs’ managers would either have to (a) disclose this fact, thereby potentially creating a run, or (b) hide the fact, thereby reducing MMFs’ currently stellar transparency structure, and inviting legal peril.¹⁷² Currently, the 2a-7 monthly reporting requires MMFs to disclose detailed information, and hiding capital buffer amounts “will expose the investor base to undesirable uncertainty and complexity.”¹⁷³ Along these same lines, the confusion over capital requirements would likewise signal to investors that MMFs are more like bank deposits than the investments they really are. While investors know their money is at risk,

¹⁷¹ Letter from John D. Hawke, Jr. to The Honorable Mary L. Schapiro (August 9, 2012), at 2. Available at <http://www.sec.gov/comments/4-619/4619-222.pdf>.

¹⁷² Treasury Strategies letter to SEC Commissioner Aguilar, *supra* n. 83, at 6.

¹⁷³ *Id.*

depositors are much more likely to run at the first sign of trouble, thereby making the MMFs run prone.

Second, the capital requirement would increase moral hazard. In an attempt to make up for the capital reserve, managers are incentivized to pursue riskier bets to drive yield back up. A 2011 study of Central and Eastern European banks found that “banks take on higher risk in the presence of explicit insurance and hence that explicit deposit insurance has generated moral hazard incentives for banks.”¹⁷⁴ Not only would this increase volatility as the managers take on more risk in hopes of higher returns, but it also impacts investors, who – believing that MMFs are “protected” by the bank-like regulations – would likewise seek the MMFs with the highest returns, regardless of the risk profiles.¹⁷⁵

Third, the capital buffer would lead to increased costs. According to one source, a capital buffer of 50bps, for example, when applied across the MMF industry, represents \$12.5 billion.¹⁷⁶ It would force the MMFs to struggle harder against the profit pressure in the already difficult environment of low rates and regulatory volatility. Such a buffer would drastically reduce managers’ incentives for being in the business, and would almost certainly lead many to exit, thereby suppressing competition. An exit of asset manager advisors could create the very run that the buffer is aimed at preventing.

In these ways, a capital buffer would damage MMFs and destabilize the financial system. Such regulation threatens to increase costs and volatility while concentrating assets within banks and precipitating runs.

X. CONCLUSION

The financial crisis of 2008 did not prove that MMFs are inherently susceptible to runs.¹⁷⁷ Quite the opposite, it showed that under unprecedented financial shock, MMF shareholders were able to reallocate assets to government-only MMFs and other low risk asset classes. The MMFs served as a safe haven, with managers protecting their fiduciaries’ (the MMF shareholders) assets and “comply[ing] with applicable regulations that limit their investments to those with minimal credit risk.”¹⁷⁸ MMF sponsors acted to shore up their funds and

¹⁷⁴ Isabelle Distinguin, Tchudjane Kouassi, Amine Tarazi, Bank Deposit Insurance, Moral Hazard and Market Discipline: Evidence from Central and Eastern Europe at 3 (June 2011).

¹⁷⁵ Treasury Strategies letter to SEC Commissioner Aguilar, *supra* n. 83, at 8.

¹⁷⁶ *Id.* at 9.

¹⁷⁷ Melanie L. Fein Money Market Funds, Systemic Risk and the Dodd-Frank Act, Presentation before the American Enterprise Institute 8 (June 28, 2012).

¹⁷⁸ *Id.*

safeguard investor assets. They helped to provide liquidity and safeguard the economy.

In the aftermath of the crisis, the SEC amended 2a-7 in 2010 to improve MMFs' investment quality, liquidity, and transparency even further. More than ever, MMFs now function as closely scrutinized investments that adhere to market discipline, precisely managing their portfolios within ½ cent/share – or even closer within the enhanced disclosures. Under such existing regulation, they serve as a transparent investment product, the risks of which are well known and disclosed. However, before taking the time to evaluate the impact of these recent reforms, regulators have already moved to suggest draconian measures that would disrupt the function of these vital liquidity engines of our economy.¹⁷⁹

The advocated regulations threaten to undermine MMFs, thereby dampening the stabilizing impact these funds have on our financial system. In an April 2012 survey commissioned by the Investment Company Institute, a majority of 203 financial executives representing corporate, government, and institutional investors indicated that they would either reduce or discontinue their use of money market funds if any of the proposed reforms were put into place.¹⁸⁰ The study concluded that, should regulators enact any of their proposals – whether it be a floating NAV, redemption holdback, or loss reserve/capital buffer – the amount of assets invested in MMFs would drop precipitously because an “overwhelming majority of treasurers will either scale back their use of money market funds or discontinue use of them altogether.”¹⁸¹

SEC Commissioners Gallagher and Paredes also opposed the recommended measures. In their statement on MMF reforms, they state, “we have carefully considered many alternatives, including the Chairman’s preferred alternatives of a ‘floating NAV’ and a capital buffer coupled with a holdback restriction, and we are convinced that the Commission can do better.”¹⁸² Taking into account input from market participants as well as states, municipalities, and business as that rely on MMFs, they conclude,

“Our decision not to support the Chairman’s proposal, based on the data and analysis currently available to us, has also been informed by our concern that neither of the Chairman’s restructuring alternatives

¹⁷⁹ A Working Paper by staff of the Risk and Policy Analysis Unit of the Federal Reserve Bank of Boston notes the effectiveness of the 2010 reforms. Federal Reserve Bank of Boston Risk and Policy Analysis Unit, The Stability of Prime Money Market Mutual Funds: Sponsor Support from 2007 to 2011, Working Paper RPA 12-3 (August 13, 2012), at <http://www.bos.frb.org/bankinfo/qau/wp/2012/qau1203.pdf>.

¹⁸⁰ Sixty-one percent of these executives oversaw short-term investment pools of \$100 million or more. Treasury Strategies, Money Market Fund Regulations: The Voice of the Treasurer (Apr. 9, 2012), at 2 available at http://www.ici.org/pdf/rpt_12_tsi_voice_treasurer.pdf.

¹⁸¹ *Id.* at 5.

¹⁸² Gallagher & Paredes Stmt. *supra* n. 38.

would in fact achieve the goal of stemming a run on money market funds, particularly during a period of widespread financial crisis such as the nation experienced in 2008. The Reserve Primary Fund did not ‘break the buck’ in a vacuum, but rather in the midst of a financial crisis of historic proportions.”¹⁸³

Their statement cites the fact the existing 2010 measures “have not been shown to be ineffective in enabling money market funds to satisfy large redemptions and to remain resilient in the face of a sharp increase in withdrawals” as well as their concern that

the Chairman’s proposal would, at a minimum, severely compromise the utility and functioning of money market funds, which would inflict harm on retail and institutional investors who have come to rely on money market funds for investing and as a means of cash management and on states, municipalities, and businesses that borrow from money market funds. Such adverse outcomes would undercut the SEC’s mission.¹⁸⁴

If regulators’ policy objective is to reduce systemic risk, reduce the chances of another massive bailout, and provide necessary short-term financing for business, then policy proposals should be aimed at increasing the market-share of MMFs, not decreasing it.

¹⁸³ *Id.*

¹⁸⁴ *Id.*

APPENDIX: MMFS IN HISTORICAL CONTEXT

The MMF was “designed to serve the needs of investors whose primary goal [was] the preservation of principal, and who [were] willing to accept a modest return on their investment portfolio in return for more safety and liquidity”.¹⁸⁵

While the high-minimum denominations and frequent reinvestment requirements kept low-risk securities (such as Treasuries, commercial paper, and negotiable CDs) out of reach of the average investor, MMFs opened the door to these higher yielding investments. By pooling resources, MMFs became a more efficient substitute for individually-managed investment portfolios that invest in money market instruments to manage cash. Institutional investors, meanwhile, were drawn by MMFs’ greater diversification and liquidity and overall more efficient cash management. By 1976, money market funds held over \$3 billion in assets, a figure that ballooned to \$76 billion by 1980 and \$220 billion by 1982.¹⁸⁶

In response to the MMFs’ growing prominence, Congress passed the Garn-St. Germain Act in 1982 in an attempt to improve the long-term competitive position of banks and thrifts.¹⁸⁷ The Act allows depository institutions to establish “money market deposit accounts” (MMDAs).¹⁸⁸ These accounts are federally insured, require a maintained average balance of at least \$2,500, and are not subject to the interest rate ceilings or maturity regulations imposed on banks. While many expected money to flow back to the banks – or at least a slowing in MMF growth – following Garn-St. Germain, MMFs again grew beyond expectations.

For banks and thrifts, the deregulation in 1982 resulted in the savings and loans crisis of the late 1980s. By the time the Act was passed, net worth in the industry was approaching zero (.5% of assets in 1982) due to high inflation and competition.¹⁸⁹ Thus, deregulation occurred at the worst time possible – when the owners’ stake was gone. Not only did the thrifts lack incentive to avoid risky markets, now there were no longer regulations to keep them from doing so. With other people’s money in their coffers, banks and thrifts entered markets in which they had little experience, venturing beyond the reach of the

¹⁸⁵ Macey, *supra* n. 7 at 135.

¹⁸⁶ ICI, 1996 Mutual Fund Fact Book at 144-145.

¹⁸⁷ Pub. L. No. 97-320; 96 stat. 1469.

¹⁸⁸ Stanley Gorinon and Glenn Manishin, “Garn-St. Germain: A Harbinger of Change”, 40 Wash. & Lee L. Rev 1313 (1983). Available at <http://www.google.com/url?sa=t&rct=j&q=&esrc=s&source=web&cd=1&ved=0CE8QFjAA&url=http%3A%2F%2Fscholarlycommons.law.wlu.edu%2Fcgi%2Fviewcontent.cgi%3Farticle%3D2673%26context%3Dwlulr&ei=tHr8T5qzGSPK6wHZm-HxBg&usg=AFQjCNGj2PyTtthyTo1NEgnskf4zzvDzA>.

¹⁸⁹ Matthew Sherman, “A Short History of Financial Deregulation in the United States,” 2009, at 7. Available at <http://www.google.com/url?sa=t&rct=j&q=&esrc=s&source=web&cd=1&ved=0CFQQFjAA&url=http%3A%2F%2Fwww.opengovernment.org%2Fotg%2Fdereg-timeline-2009-07.pdf&ei=jXv8T6XICsKj6wGA4KjEBg&usg=AFQjCNE2ROpcEuWZVJ-c-NuJaRkQdYMIcg>.

federal safety net. The result was the failure of well over three hundred thrifts, which Lawrence White details in his 1991 article “The S&L Debacle.” White recommends stronger powers for bank and S&L regulators to “prevent yet more awful losses from occurring in the future.”¹⁹⁰

However, focusing only on the large-scale problems that accompanied bank deregulation does not capture the intricacies of the battle between MMFs and money market deposit accounts set up by the Garn-St. Germain Act. MMDAs, as described by Congress, were to be “directly equivalent to and competitive with money market mutual funds.”¹⁹¹ At first, it seemed as if the government had designed a formidable competitor for MMFs. In just the first three months after their introduction in late 1982, MMDAs gained \$300 billion in assets.¹⁹² As one would expect of a substitute, MMF assets dropped by \$67 billion from 1982 to 1983.¹⁹³ However, MMFs would eventually prove more flexible and specialized than bank accounts could hope to be – many MMFs lowered their minimums below the statutory MMDA minimum and increased the services provided by their products (for example, specializing in short-term investments in tax-exempt securities, riskless securities or high risk/return securities).¹⁹⁴ Keeley and Zimmerman (1985) describe that after an estimated \$90 billion had flowed from MMFs to MMDAs, the former stemmed – and even reversed – the tide by the mid 1980s. They describe: “The facts that the money funds lost only a fraction of their deposits to the MMDAs...suggest[s] that the money funds and MMDAs are substitutes, but not as close substitutes as some had anticipated.”¹⁹⁵ Between 1986 and 1992, MMFs grew at an annual rate of 15 percent and finished the period with \$452 billion in total assets.¹⁹⁶

Aside from acting as a temporary pit stop for longer-term mutual fund investments, MMFs have benefited from their relationship with their sponsors in another, more easily measured, way – fund advisors’ direct purchases. Despite the SEC’s risk-limiting attempts to protect MMFs,¹⁹⁷ the funds can, and – albeit exceedingly rarely – do lose value.¹⁹⁸ When this has happened in the past, MMF asset managers have voluntarily stepped in and purchased

190 Lawrence G. White, The S&L Debacle, 59 Fordham L. Rev S70 (1991). Available at http://www.google.com/url?sa=t&rct=j&q=&esrc=s&source=web&cd=3&ved=0CFAQFjAC&url=http%3A%2F%2Fir.lawnet.fordham.edu%2Fcgi%2Fviewcontent.cgi%3Farticle%3D2921%26context%3Dflr&ei=4XL8T9izCoiO2wXF_JjZBg&usg=AFQjCNEGaAJPbDfUIEKZJ8u6LLSnu0Mlkw.

191 12 U.S.C. § 3503(c)(1)(1982).

192 Michael Keeley and Gary Zimmerman, “Competition for Money Market Deposit Accounts,” 1985, p. 5. Available at <http://ideas.repec.org/a/fip/fedfer/y1985isprp5-27.html>.

193 Timothy Cook and Jeremy Duffield, “Money Market Mutual Funds and Other Short-Term Investment Pools,” 1998, p. 158. Available at <http://ideas.repec.org/b/fip/fedrmo/1998mmfaoti.html>.

194 Keeley and Zimmerman *supra* n. 192, at 23.

195 *Id.*

196 Cook and Duffield *supra* n. 193, at 158.

197 Schapiro June 2012 Testimony, *supra* n. 12.

198 *Id.*

securities from the funds in order to bring their NAV back to \$1.00. While this does not happen often – and certainly did not happen nearly as often as the SEC Chairman has recently suggested – it has proven helpful to investors and protected sponsors’ interests in their money fund franchises. The voluntary nature of the support, along with the real and well-disclosed risk of loss, is why MMFs are investments and not deposits.

Casting a broad net since inception, MMFs were immediately made available to both corporations, who are not permitted to have bank savings accounts, as well as to individuals with as little as \$1,000 to invest. The funds actively courted bank trust departments, other mutual funds, investment advisors, stock brokers, and accountants with escrow funds.¹⁹⁹ Allowing for investments as short as one day or as long as one year and charging a staggeringly low fee of .5% of the average daily assets each year, MMFs flourished as banks were unable to provide investors with low fees or high returns on par with the funds.

Central to understanding the rapid rise of MMFs is Regulation Q, adopted under the Glass-Steagall Act of 1933. Regulation Q’s most relevant feature was the imposition of interest rate ceilings on bank deposits, including savings and time deposits. The rationale was that the initial stages of the Great Depression had been caused by over-competition between banks for deposit funds. Limiting the interest rates that banks could offer would thereby restrict the speculative behavior in which they could engage. And for about 30 years, Regulation Q operated without much disapproval; since depositors had few financially attractive alternatives, few customers were lost.²⁰⁰ Banking became rather uncomplicated, with postwar bankers merely operating by the so-called “3-6-3” rule: banks borrowed money from depositors at the Regulation Q ceiling of approximately 3%, loaned the money out at 6%, and then left to play golf by 3:00 pm.²⁰¹ As interest rates remained relatively low during this period, there was little pressure for change.

In 1970, however, the bank prime loan rate broke 8% for the first time and it grew clear that tension over the interest rate ceiling had come to a boiling point as investors looked for alternatives to the low rates permitted by Regulation Q. Reacting to this tension, the Treasury raised the minimum denomination of Treasury bonds from \$1,000 to \$10,000 dollars in an attempt to keep more of depositors’ money in traditional bank accounts (the average deposit in savings-and-loans accounts that year was \$3,045).²⁰² Banks did their best to incentivize investors, famously offering non-interest perks as rewards for deposits; \$1,000

199 See, generally, Macey, *supra* n. 7.

200 Lawrence G. White, The S&L Debacle, 59 Fordham L. Rev S64 (1991)..

201 Jerry W. Markham, II, A Financial History of the United States 303-4 (2002).

202 *Id.* p. 63.

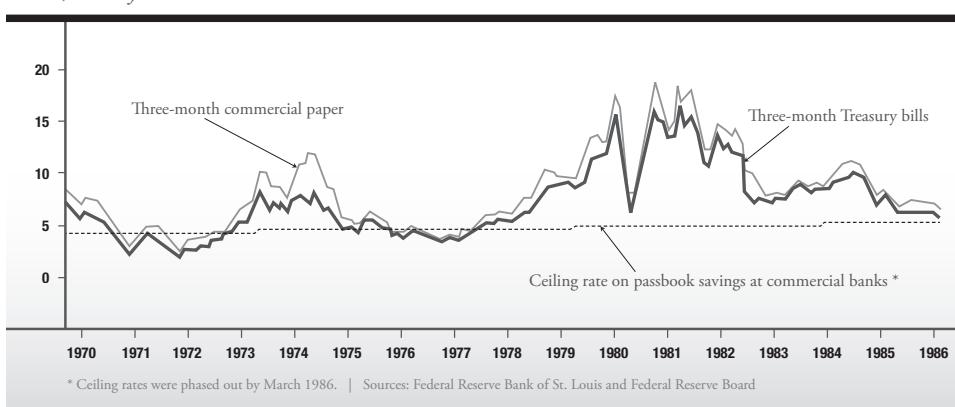
Money Market Funds: Source of Systemic Stability

might have earned a tennis racket and \$5,000 a toaster.²⁰³ These measures were not enough.

By 1978, poor monetary and fiscal policies combined with high oil prices to send inflation soaring and interest rates into double digits.²⁰⁴ The gap between lending and borrowing rates of banks increased, in turn, due to the deposit rates' regulatory ceiling imposed by Regulation Q. Both investors, who sought to deploy their short-term deposits at a higher rate than banks could legally provide, and borrowers, who desired to raise funds at a lower rate than banks offered, would not be enticed by a "free toaster" giveaway this time.²⁰⁵ Beginning in 1979, money flowed to money market funds as they were able to provide yields far above the rate set by Regulation Q. The following exhibit, highlights the differential between the instruments in which MMFs could invest – and thereby pass along to their investors – versus the rates banks could offer (defined as "passbook savings" below) under the regulation.

EXHIBIT 1: YIELDS AVAILABLE TO MMFS VS. BANKS' PASSBOOK SAVINGS

Annual Yields on Commercial Paper, Treasury Bills, and Passbook Savings
Percent, monthly



Source: Investment Company Institute, Report of the Money Market Working Group, March 17, 2009, Appendix E, www.ici.org/pdf/ppr_09_mmwg.pdf.

²⁰³ *Id.*

²⁰⁴ For more on flawed policies, see Allan H. Meltzer, Origins of the Great Inflation, Federal Reserve Bank of St. Louis Review 145 (March/April 2005), available at <http://research.stlouisfed.org/publications/review/05/03/part2/Meltzer.pdf>; see also What caused the Great Inflation?, Economist's View (Apr. 20, 2007), at http://economistsview.typepad.com/economistsview/2007/04/what_caused_the.html.

²⁰⁵ S Manjesh Roy, "Money Market Mutual Funds: A Macro Perspective", Econ. & Pol. Weekly (Mar. 19, 2005) p. 1254-1255. Available at <a href="https://doc-0g-7g-docsviewer.googleusercontent.com/viewer/securedownload/dsn1aovipa71846lsfcf94nedj8q2p4u/f53kv9u5v10t1e2202sm21a6gbp962juu1349911800000/c210ZXM=/AGZ5hq8BgbjY1gwaOYx83cPOdNw6/WkdwBwVIYVnNRJ12YldGcGueHRZVzVxWhOb2NtOTVmR2Q0T2pRM05qvM1Zek5rWWpnecU1HSxpOREk=?do.cid=2ff51250e3de6ed02a2798a735dc056%7C4463c473ed70e5b0f7e0a92d6fd15229&chan=EwAAAPGVWpnEbQ7nHg1mDQavSdDccUrffNFyJMTSVmt2R3Pe&sec=AHSqidbmVskG3A_ff1x8T4sIfDE6jNZTiObCctWqV4MSTos9O77o0E5pAye5bRRJLQHQVqK6H1H-&a=gp&filename=8MMMF-EPW.pdf&nonce=mm567ifa1if08&user=AGZ5hq8BgbjY1gwaOYx83cPOdNw6&hash=q1a30q4b7s86bequ5tk46rqpq71jkfoj.

The money followed the returns right to MMFs. In fact, during the first 5 months of 1979, MMFs were growing by more than \$2 billion per month.²⁰⁶ Waning inflation in the early 1980s did not curb MMF growth, however, because by that time they came to be seen as the paragon for short-term money management rather than simply as an alternative. Investors recognized the advantages of the highly liquid funds, and the MMFs increased their assets by 230% between 1980 and 1982 (to \$203.3 billion).²⁰⁷

Since the early 1990s, MMF assets have continued to grow, albeit at a more modest clip. In addition to their competitive pricing, the one reason for the funds' growth during this decade was their mutually beneficial relationship with their mutual fund sponsors, a sector that boomed during the period. Throughout the 1990s, mutual funds overall rose from less than \$1 trillion in assets to just under \$7 trillion by the turn of the millennium.²⁰⁸ However, most of this growth can be attributed to mutual funds other than MMFs, which accounted for just 8% of the overall growth.²⁰⁹ There are two explanations for the modest growth (when compared to other mutual funds, such as equity funds) of MMFs. First of all, money funds must limit their investments to high-grade, short-term investments, thereby allowing for far less variety than that available via longer-term mutual funds.²¹⁰ Secondly, MMFs, once established, grow and shrink to meet the demands from their investors who need a short-term parking place for cash.²¹¹ As a result, when long-term equity markets are surging, as they were through much of the 1990s, it is reasonable to expect growth from MMFs, but perhaps a more modest rate as funds flowed from MMF "parking lots" and into the bull market.

The first MMF initially used the penny-rounding method of maintaining a stable NAV: It priced shares at \$1.00/share and when calculating the fund's NAV each day, rounded the price to the nearest cent. This rounding made the share price less sensitive to market fluctuations in the underlying portfolio's

²⁰⁶ Gary Gorton and Andrew Metrick, "Regulating the Shadow Banking System," Brookings Papers on Econ. Activity (Oct. 18, 2010) at 6. Available at http://papers.ssrn.com/sol3/papers.cfm?abstract_id=1676947&download=yes.

²⁰⁷ Stanley Gorinon and Glenn Manishin, "Garn-St. Germain: A Harbinger of Change," 40 Wash. & Lee L. Rev 1313, 1322 n. 50 (1983). Available at <http://www.google.com/url?sa=t&rct=j&q=&esrc=s&source=web&cd=1&ved=0CE8QFjAA&url=http%3A%2F%2Fscholarlycommons.law.wlu.edu%2Fcgi%2Fviewcontent.cgi%3Farticle%3D2673%26context%3Dwlulr&ei=tHr8T5qzGsPK6wHZm-HxBg&usg=AFQjCNGj2PyTrthyyTo1NEGnskf4zvDzA>.

²⁰⁸ Brian Reid, "The 1990s: A Decade of Change and Expansion in the U.S. Mutual Fund Industry," Investment Company Institute, Perspective (July 2000), at 1. Available at http://www.google.com/url?sa=t&rct=j&q=&esrc=s&source=web&cd=1&ved=0CE4QFjAA&url=http%3A%2F%2Fwww.ici.org%2Fpdf%2Fper06-03.pdf&ei=-X_8T5TljqjF6gGtueW6Bg&usg=AFQjCNH51sXmNzfKCMr8xqWA0dkPFmcqg.

²⁰⁹ *Id.*, 2 at 13.

²¹⁰ *Id.* at 13.

²¹¹ Leora Klapper, Victor Sulla, and Dimitri Vittas, "The Development of Mutual Funds Around the World," 2003, p. 10. Available at http://www.google.com/url?sa=t&rct=j&q=&esrc=s&source=web&cd=3&ved=0CFkQFjAC&url=http%3A%2F%2Fsiteresources.worldbank.org%2FDEC%2FResources%2FMFN0v03.pdf&ei=-X_8T5TljqjF6gGtueW6Bg&usg=AFQjCNH_72etMXaRXlkSsW1_uuqyeHONoVA.

value, since even if the NAV dropped to \$0.995 on a given day, they could still report a \$1.00 NAV. Other MMFs took a different tack.

Known as the “amortized cost” method, some MMFs accounted for the difference between the purchase price and the amount payable at maturity using amortization. After initially valuing the investment at cost, the fund,

adjusts the amount of interest income accrued each day over the term of the investment to account for any difference between the initial cost of the investment and the amount payable at its maturity. If the amount payable at maturity exceeds the initial cost (a discount), then the daily accrual is increased; if the initial cost exceeds the amount payable at maturity (a premium), then the daily accrual is decreased. The fund adds the amount of the increase to (in the case of a discount), or subtracts the amount of the decrease from (in the case of a premium), the investment’s cost each day, so that, when the instrument matures, its adjusted cost will equal the amount payable at maturity. The fund uses this adjusted cost to value the investment each day.²¹²

In 1975, believing it “undesirable to determine value by a mechanical or automatic formula with no reference to market value and no judgmental input on the part of the directors,” the SEC considered interpreting the Investment Company Act to effectively preclude MMFs from using both the penny rounding and amortized cost methods.²¹³ However, the MMFs received exemptions to continue using these methods if they abided by certain risk-limiting rules.

These rules were essentially codified in 1983 with the adoption of Rule 2a-7. Specifically, the SEC required all MMF portfolio holdings be U.S. dollar denominated and present minimal credit risk, as determined by the MMF’s Board. They were permitted to invest in securities rated “high quality” by a major rating service, or otherwise determined by the board to be of comparable quality to such securities.²¹⁴ Further, 2a-7 required that the MMFs “maintain a dollar-weighted average portfolio maturity appropriate to its objective of maintaining a stable [net asset value] per share,” which could not exceed 120 days. Individual portfolio securities must mature within one year.²¹⁵ The rule was

²¹² ICI Report *supra* n. 21, at E-143. As the ICI’s Report notes, “[t]hese adjustments to accrued income also prevent money market funds from over- or under-distributing their income. By amortizing premiums to reduce income, the fund retains sufficient cash to compensate for the shortfall between the premium paid for the instrument and the amount received at maturity. By accreting discounts to increase income, the fund distributes sufficient cash to avoid realizing an apparent gain when the discount is paid at maturity.” *Id.* at n. 7 E-143.

²¹³ *Proposal Concerning Valuation of Short Term Debt Instruments Owned by Registered Investment Companies Including Money Market Funds*, SEC Release No. IC-8757 (Apr. 15, 1975) at text preceding n. 6.

²¹⁴ ICI Report 10 *supra* n. 21, at E-150.

²¹⁵ *Id.* at E-150.

designed to enable MMFs to use amortized cost valuation if they strictly and precisely followed its risk-limiting regulations.

The SEC explained the rationale behind these measures, stating that there were

basically two types of risk which cause fluctuations in the value of money market fund portfolio instruments: the market risk, which primarily results from fluctuations in the prevailing interest rate, and the credit risk. In general, instruments with shorter periods remaining until maturity and which are of higher quality have reduced market and credit risks and thus tend to fluctuate less in value over time than instruments with longer remaining maturities or of lesser quality.²¹⁶

2a-7 goes further by also requiring the board of a fund to monitor the MMF's NAV and establish procedures for maintaining it at a stable level. The SEC provided guidance to the MMFs on calculating maturity and the meaning of "high quality" with regard to the investments. With such measures, the SEC explicitly relied upon self-regulation, explaining,

Funds using the amortized cost valuation method may need to use penny-rounding in computing their price per share when a gain or a loss in the value of their portfolio, which was not offset against earnings, is recognized. Where the gain or loss has been recognized, there is no longer merely a potential for a deviation between the value assigned by the fund for the securities sold and that actually realized by the fund. The Commission does not wish to define the permissible amount of deviation. However, to the extent a fund has realized gains or losses that cause the fund's price per share to deviate from the amortized cost net asset value per share, the Board must be particularly careful to ensure that the fund can maintain a stable price per share.²¹⁷

With this Rule, the SEC provided guidance but intentionally left much to the MMFs' discretion. In fact, MMFs retained the option of utilizing penny-rounding or amortized cost method; or, if the MMF chose to eschew both methods or already possessed a prior exemption to use one, it could disregard 2a-7 all together. And for those funds that chose to operate under 2a-7, the rule left much to each MMF's board's judgment.²¹⁸

²¹⁶ *Valuation of Debt Instruments and Computation of Current Price Per Share by Certain Open-End Investment Companies (Money Market Funds)*, SEC Rel. No. IC-13380, 48 FR 32555 at n. 7 (Jul. 18, 1983).

²¹⁷ *Valuation of Debt Instruments and Computation of Current Price Per Share by Certain Open-End Investment Companies (Money Market Funds)*, SEC Rel. No. IC-13380, 48 FR 32555 (Jul. 18, 1983) at text preceding n. 6.

²¹⁸ ICI Report *supra* n. 21, at E-149-150.

During this same period in the early 1980s, the Former Federal Reserve Board Chairman Paul Volcker and members of Congress pushed to impose reserve requirements on MMFs and make them more like banks. Explicitly seeking to curb MMF growth and protect banks from competition, Volcker sought a temporary 15% reserve requirement on MMFs, relying on questionable legal authority under the Credit Control Act of 1969.²¹⁹ Despite the fact that MMFs “served the Fed’s goals by reducing the availability of deposits to fund excessive lending activity by banks,”²²⁰ the Fed pushed to siphon money from them and into banks and thrifts.

Congress disagreed. It was the SEC that made a case before Congress that MMFs were good for investors and that the SEC’s regulation was sound. The attempt to treat MMFs more like banks failed as well as Volker’s reserve requirement and his policy of targeting money aggregates.²²¹ MMFs were left intact but Volker’s hostility lingered.

2a-7 was soon amended again in 1986. At this time, the SEC updated the definition and requirements of “demand features” – a characteristic of certain adjustable rate securities that entitled the holder to receive the principal amount of the security on not more than seven days’ notice.²²² Then again in 1991, the SEC moved to revise 2a-7 in the wake of the savings and loan crisis. MMF’s had weathered the crisis far better than the banks: from 1986–1995,

“1,043 thrifts with total assets of over \$500 billion failed. The large number of failures overwhelmed the resources of the FSLIC, so U.S. taxpayers were required to back up the commitment extended to insured depositors of the failed institutions. As of December 31, 1999, the thrift crisis had cost taxpayers approximately \$124 billion and the thrift industry another \$29 billion, for an estimated total loss of approximately \$153 billion.”²²³

During that time no MMFs failed due to their stability in structure and investment in low risk securities. Nevertheless, the SEC feared a spill-over effect, noting that some of the commercial paper held by MMFs,

219 See Federal Reserve Board Press Release dated March 14, 1980 announcing a program of credit controls. See Stacey L. Schreft, “Credit Controls: 1980,” Federal Reserve Bank of Richmond Economic Review, Nov./Dec. 1990, p. 38 (“The reserve requirement on MMMFs was designed to slow the outflow of funds from thrift institutions and smaller banks... . The legality of the Board’s regulation of MMMFs was questioned from the moment the program was announced. House Representative Reuss [chairman of the House Banking Committee] argued that the public’s transfer of funds from thrifts to MMMFs did not contribute to an ‘extension of credit in excessive volume’ as required for use of the [Credit Control Act.”).

220 Melanit L. Fein, Shooting the Messenger: The Fed and Money Market Funds 107 (March 9, 2012), at <http://www.sec.gov/comments/4-619/4619-157.pdf>.

221 *Id.* at 109.

222 ICI Report *supra* n. 21, at E-151.

223 Curry & Shibut, *supra* n. 108, at 33.

had a ‘high quality’ rating from a NRSRO [nationally recognized statistical organization^{224]} until shortly before the default and was held by several money market funds at the time of the default. The shareholders of these money market funds were not adversely affected, however, because each fund’s investment adviser purchased the defaulted commercial paper from the funds at its amortized cost or principal amount.²²⁵

The SEC was alarmed by the fact that “[t]he credit ratings of some large money center banks also have declined recently,” thereby threatening the supply of high-quality securities in which MMFs might invest.²²⁶ The resulting amendments virtually rewrote 2a-7.²²⁷

The SEC tightened its risk-limiting rules governing MMFs that wished to use the amortized cost or penny-rounding accounting methods under 2a-7.²²⁸ The amended rule focused on limiting risk via diversification, investment quality, and maturity of portfolio securities.²²⁹ Most notably, an MMF was now required to invest 95 percent of its assets in

“First Tier” securities, which generally speaking was defined to include Treasury securities or privately issued securities rated A1-P1, and had to invest the remainder in “Second Tier” securities, which are those rated A2-P2. The SEC also required that a fund invest no more than 1% of its assets in any particular Second Tier company or 5% of its assets in any First Tier company.” Finally, the SEC lowered the average maturity requirement from 120 to 90 days.²³⁰

At this time, the SEC promulgated a rule making it illegal for a registered mutual fund to describe itself as a “money market” fund unless it met the stringent requirements of Rule 2a-7. This provision effectively defined a money market fund as a mutual fund that follows the risk-limiting provisions of Rule 2a-7. Significantly, since 1991, the SEC has also required that a money market fund prospectus prominently disclose that the MMF’s shares are neither insured nor guaranteed by the U.S. government and that there is no assurance that the

²²⁴ A concept introduced in the 1986 Amendments.

²²⁵ Revisions to Rules Regulating Money Market Funds, SEC Release No. IC-17589 (July 17, 1990) at text preceding n. 18.

²²⁶ *Id.* at text preceding n. 19 and n. 20.

²²⁷ Please see below for a discussion of the 1996 amendments to 2a-7.

²²⁸ Revisions to Rules Regulating Money Market Funds, SEC Release No. IC-17589 (July 17, 1990).

²²⁹ *Id.*

²³⁰ Timothy Q. Cook and Jeremy G. Duffield, *Money Market Mutual Funds And Other Short-Term Investment Pools* 166-167 (1998) (available at http://www.richmondfed.org/publications/research/special_reports/instruments_of_the_money_market/pdf/chapter_12.pdf); *see also*, Leland Crabbe and Mitchell Post, *The Effect of SEC Amendments to Rule 2a-7 on the Commercial Paper Market*, 199 Finance and Economics Discussion Series, Board of Governors of the Federal Reserve System (May 1992) (demonstrating the reduction in MMFs’ holdings of A2 paper following the imposition of this regulation and concluding that the regulation raised the interest rate on A2 paper relative to that on A1 paper).

funds will be able to maintain a stable value of \$1.00 per share. The express purpose of this rule is to increase investor awareness that investing in a money market fund is not without risk.²³¹

Following this amendment, the many penny-rounding MMFs switched to the amortized cost method. The new 2a-7 whittled the advantage of using penny-rounding to little more than the ability to acquire government securities with remaining maturities of up to 762 days, as compared to the normal 397-day limitation.²³² Because it requires daily rounding and NAV calculation, it is more expensive. It also requires the fund to break the buck if the NAV ever falls below \$0.995, while MMFs utilizing the cost method had to call a board meeting to decide “what actions, *if any*” should be taken.²³³

Even with these stringent rules, some money market funds nevertheless ran into trouble in 1994. In September of that year, Community Bankers Mutual Fund, Inc., as a result of poor investments in adjustable rate securities, became the first MMF to “break the buck” and report a loss to investors. While other funds likewise experienced losses during this period, their investors were shielded because the fund managers came to their rescue, investing enough into the fund to make up for the losses themselves.²³⁴ Community Bankers, however, had made ill-timed investments in adjustable rate securities, which plummeted in value when interest rates rose in 1993-1994. In fact, the fund had placed a staggering 43% of its assets in derivatives. The fund was small, with only \$82.2 million in assets, but the lesson was large: Money funds, like all other deposit accounts before them, are only safe when they are properly managed. As Arthur Levitt, Jr., then Chairman of the SEC, put it, “The moral is that any fund can lose money.”²³⁵

It is important to note that during that crisis, there were no runs on other MMFs because there was liquidity in the financial system. This stands in stark contrast to 2008 and the tremendous liquidity crisis that pervaded the entire financial system. The lesson that the 1990s provides is that an MMF can break the buck without creating a problem: It was an unprecedented liquidity crisis – which was not caused by MMFs – that caused a different outcome in 2008.

After the Community Bankers scare and SEC reform, MMFs continued to show steady growth. While they held about \$500 billion in deposits in 1992, by 2000 they had grown to \$1.8 trillion, and by the end of 2008 they claimed

²³¹ Macey, *supra* n. 7, at 141.

²³² ICI Report *supra* n. 21, at E-159-160.

²³³ *Id.*

²³⁴ For example, in 1994, BankAmerica covered \$60 million in derivative losses by two money market funds. See Leslie Wayne, Investors Lose Money in “Safe” Fund, N.Y. Times, Sept. 28, 1994, at D1; chart, “Pumping Money Into Their Funds,” *id.* at D6 (listing fifteen MMFs whose advisors covered for shortfalls in 1994, bailing out their funds to avoid “breaking the buck.”).

²³⁵ Leslie Wayne, Investors Lose Money in “Safe” Fund, N.Y. Times, Sept. 28, 1994, at D1.

\$3.8 trillion in assets, making them one of the most significant financial product innovations of the last 50 years.²³⁶

Not only do MMFs provide greater accessibility over individually-managed investment portfolios that seek to invest in money market funds, they provide investor convenience, efficiency, and stability. Unsurprisingly, from 1998-2008, retail money market mutual funds grew from managing approximately \$835 billion in funds to \$1.36 trillion in funds, or 63%, with institutional money market fund assets growing from approximately \$516 billion to \$2.48 trillion, a staggering 380%.

EXHIBIT 2: SUCCESS OF MMFS IN FULFILLING VITAL FINANCIAL ROLE

Percent of total financial assets

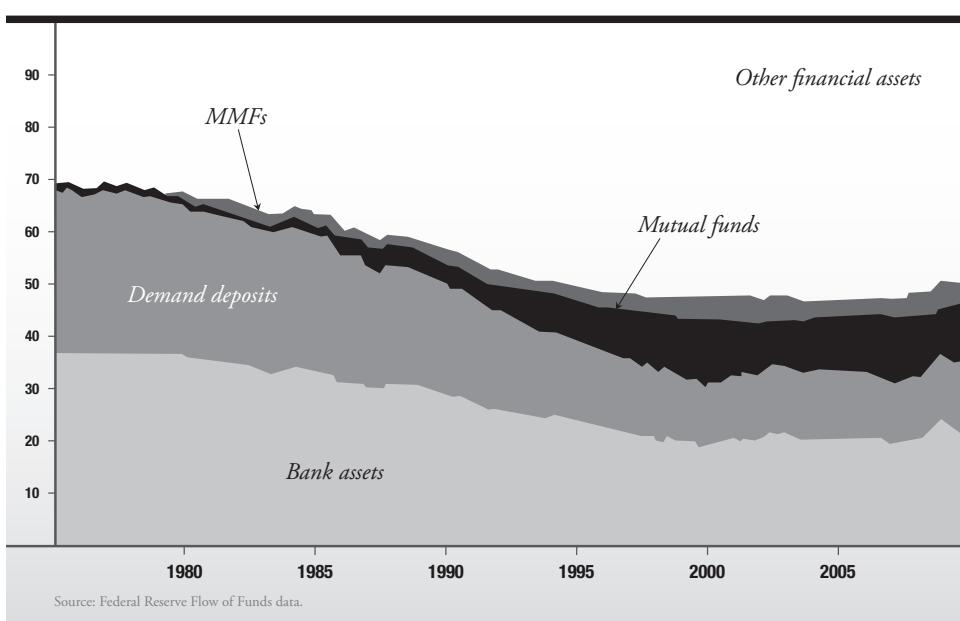


Image Source: Gorton and Metrick, Regulating the Shadow Banking System (2010) p. 36

The SEC also amended 2a-7 in 1996, imposing on tax-exempt funds (with some refinements) the same risk-limiting provisions addressed in 1991 – portfolio quality, diversification and maturity.²³⁷ Addressing asset-backed securities for the first time, the SEC required MMFs to treat Special Purpose Entities issuing a security as the issuer for diversification purposes. The various changes were perceived to be so cumbersome and made 2a-7 so complicated, many in

236 Gorton and Metrick (2010), Regulating the Shadow Banking System, p. 6.

237 The 1997 Amendments were technical.

the industry “expressed concerns over whether they could operate funds under the more complicated amended rule.”²³⁸ Responding to the uproar, the SEC postponed the effective date of these 1996 revisions until they could introduce technical amendments as well. The SEC adopted those technical amendments in December of 1997.²³⁹ While cumbersome, the rules still permitted flexibility and empowered MMFs to utilize their advantages to serve the needs of their investors.

²³⁸ ICI Report *supra* n. 21, at E-161.

²³⁹ Technical Revisions to the Rules and Forms Regulating Money Market Funds, SEC Release No. IC-22921 (December 2, 1997), 62 FR 64968 (December 9, 1997).



Biography

Jonathan R. Macey

Jonathan R. Macey is Sam Harris Professor of Corporate Law, Corporate Finance, and Securities Law at Yale University, and Professor in the Yale School of Management. From 1991-2004, Professor Macey was J. DuPratt White Professor of Law, Director of the John M. Olin Program in Law and Economics at Cornell Law School, and Professor of Law and Business at the Cornell University Johnson Graduate School of Business. Professor Macey earned his B.A. cum laude from Harvard in 1977, and his J.D. from Yale Law School in 1982, where he was Article and Book Review editor of The Yale Law Journal. In 1996, Professor Macey received a Ph.D. honoris causa from the Stockholm School of Economics. Following law school, Professor Macey was law clerk to Judge Henry J. Friendly on the U.S. Court of Appeals for the Second Circuit.

Professor Macey is the author of several books including the two-volume treatise, *Macey on Corporation Laws*, published in 1998 (Aspen Law & Business), and co-author of two leading casebooks, *Corporations: Including Partnerships and Limited Liability Companies* (2003 Thompson*West), which is in its eighth edition, and *Banking Law and Regulation* (2002 Aspen Law & Business), which is now in its third edition. He also is the author of over 100 scholarly articles. His recent articles have appeared in the *Banking Law Journal*, the *University of Chicago Law Review*, the *Stanford Law Review*, the *Yale Law Journal*, the *Cornell Law Review*, the *Journal of Law and Economics*, and the *Brookings Wharton Papers on Financial Institutions*. He has published numerous editorials in such publications as *The Wall Street Journal*, *Forbes*, *The Los Angeles Times*, and *The National Law Journal*.

Professor Macey has taught at major universities throughout the world, including Bocconi University (Milan), the University of Tokyo, the University of Toronto, the University of Turin, the University of Amsterdam Department of Finance, and the Stockholm School of Economics, Department of Law. He also has been Professor of Law at the University of Chicago (1990) and Visiting Professor of Law at Harvard Law School (1999). Professor Macey is a Senior Research Fellow at the International Centre for Economic Research (ICER) in Turin, Italy. Professor Macey also serves on the Academic Advisory Board (Comitato Scientifico) of the Associazione Disiano Preite for the study of corporate law (per lo studio del diritto dell'impresa). In 1995, Professor Macey was awarded the Paul M. Bator prize for excellence in Teaching, Scholarship and Public Service by the Federalist Society for Law and Public Policy. In 1996, he received a Ph.D., honoris causa from the Stockholm School of Economics. And in 1998, he received the D.P. Jacobs prize for the most significant paper in volume 6 of the Journal of Financial Intermediation for his paper (co-authored with Maureen O'Hara), "The Law & Economics of Best Execution." In 1999 Professor Macey was made an honorary Fellow of the Society For Advanced Legal Studies.

In 2000, Professor Macey became a member of the Legal Advisory Committee to the Board of Directors of the New York Stock Exchange. In 2001 Professor Macey was appointed a Bertil Daniellson Distinguished Visiting Professor in Banking and Finance at the Stockholm School of Economics. In 2002 Professor Macey was appointed to the Economic Advisory Board of the National Association of Securities Dealers (NASD). In 2004 Professor Macey was awarded a Teaching Award by the Yale Law Women in recognition of his "commitment to excellence in teaching, mentoring and inspiring." In 2005 Professor Macey became a member of the Board of Editors of Thompson*West Publishing Company.

