

MISSING THE MARK ON MONEY MARKET FUNDS

By

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I. INTRODUCTION

Shortly after the financial crisis five years ago, senior Federal Reserve officials began a concerted campaign to blame money market funds (“MMFs”) for the crisis and otherwise discredit the MMF industry. These officials argued, among other things, that MMFs were unregulated, part of a leveraged “shadow banking system,” engaged in risky investment activities, prone to runs, a threat to the ability of banks to provide credit, and a source of instability in the financial system as a whole. These arguments went through various iterations, each of which, when examined closely, proved wrong. None of the arguments were supported by empirical data or credible economic arguments, and Federal Reserve officials lately have toned down their rhetoric on MMFs.

Nevertheless, the Federal Reserve Bank of New York, in an apparent attempt to remedy the analytical deficiencies in the central bank’s unseemly attack on MMFs, recently publicized the results of a study on MMFs by its economists. The study examines what the theoretical impact on the banking system might be if MMFs were the only depositors of banks. This implausible scenario is referred to by the economists as a “MMF-intermediated” banking system as opposed to the present “direct finance” banking system whereby banks receive deposits directly from individual, corporate and other depositors.

The results of the Reserve Bank Study were highlighted on the Reserve Bank’s economics blog.¹ The Study, entitled “The Fragility of an MMF-Intermediated Financial System,” concludes that a MMF-intermediated banking system can be “particularly fragile” and “more unstable” than a direct finance system.

The Reserve Bank Study appears intended to prove the following hypothesis: MMFs hold significant amounts of uninsured bank deposits that, if suddenly withdrawn by MMFs *en masse*, would be more destabilizing to the banking system than if individual and corporate depositors suddenly withdrew their deposits. The reason for this, the Study posits, is that MMF shareholders who become aware of adverse information about a troubled bank signal such information to MMFs by redeeming their MMF shares. The MMFs in turn react by withdrawing additional deposits from the bank, thus triggering larger

¹ Cipriani, Martin, and Parigi, The Fragility of an MMF-Intermediated Financial System, Liberty Street Economics Blog, Dec. 23, 2013. The blog highlights a Staff Study by the authors entitled Money Market Funds Intermediation and Bank Instability, Federal Reserve Bank Staff Study No. 599, Feb. 2013, rev. May 2013 (referred to herein, together with the blog, as the “Reserve Bank Study.”)

withdrawals from the bank than would otherwise occur, exacerbating instability at the bank and the larger banking system.

Apart from the improbability of the underlying scenario in which MMFs are the only holders of bank deposits, the Reserve Bank Study is based on assumptions that are demonstrably wrong. Among other things, MMFs at present do not hold any systemically significant amount of U.S. bank deposits. Thus, the central premise of the hypothesis is critically flawed.

A troubling implication of the Study is the suggestion that MMFs or other investors should not respond promptly to information indicating problems at a bank. Rather, according to the Study, it would be less destabilizing to a troubled bank and the rest of the banking system if depositors exercise “patience” and withdraw deposits “gradually.” The Study does not envision ways of enforcing depositor patience or gradual withdrawal of deposits from a faltering bank—an exercise fraught with difficulties.² Nevertheless, the implied suggestion is that depositors should bear more risk of loss in a failing bank situation than they do now. However, any action to impose more risk on depositors would require a radical change in national banking policy and affect depositor behavior in unpredictable ways, with potentially severe implications for banking stability that are not addressed by the Study.

The Study reflects an exceedingly narrow range of financial regulatory considerations. Among other things, the Study fails to give any credence to market discipline as a check on undue risk-taking and unsafe and unsound practices by banks. The Study ignores the dangers of “moral hazard” by taxpayer-subsidized banking organizations operating free of market restraints. It fails to consider the potential for increased systemic risk in the financial system if uninsured deposits at “too-big-to-fail” banks grow in the absence of MMFs.

Most importantly, the Study assigns no value to the regulatory framework under which MMFs operate that makes them safer investments than bank deposits for many investors. The Study aligns with other Federal Reserve studies that view the transparency of MMFs as a threat to banking stability, contrary to the disclosure-based regime of securities regulation.

The Study reflects the bank-centric view—inherent in comments of senior Federal Reserve officials—that MMFs and their investors are second-class citizens in the financial world, whose interests are subordinate to those of banks

² For example, at what point in a bank’s demise would it be appropriate to restrict depositor withdrawals? Which depositors would be subject to restrictions? Would the restrictions apply to insured as well as uninsured deposits? Would prior notice be given to depositors? When would the restrictions be lifted, if ever?

and bank shareholders. Under this view, MMFs are mere props to support the regulated banking industry, not efficient investment vehicles that exist independently to meet important investment and liquidity needs in the financial system.

This paper discusses these and other flaws in the Reserve Bank Study and shows why the Study fails to provide credible support for regulatory changes that would diminish the role of MMFs in the financial system.

II. WHY THE RESERVE BANK STAFF STUDY MISSES THE MARK

The Reserve Bank Study misses the mark on MMFs for the following reasons, among others:

A. The Study is Based on a Bogus Scenario

As a preliminary matter, the Reserve Bank Study concocts an unrealistic scenario under which banks would have access to deposits only through MMFs. Such a system does not exist in the United States or anywhere else in the world. The likelihood of such a system developing is nil. To draw conclusions from such a bogus hypothesis and present them as a basis for policy decisions affecting the stability of the financial system is inappropriate.

Moreover, apart from its apocryphal starting point, the Study reflects false assumptions and misinformation concerning the operations of MMFs, as discussed below.

B. The Study's Key Hypothesis is False

The key hypothesis in the Reserve Bank Staff Study assumes that MMFs hold large amounts of U.S. bank deposits such that a rapid withdrawal of deposits by MMFs could destabilize the banking system. This assumption, without which the Study's hypothesis collapses, is false.

As of year-end 2013, U.S. banks held \$11.2 trillion in deposits, of which \$5.9 trillion was FDIC-insured.³ Of these total bank deposits, MMFs held approximately \$50 billion, or *less than one-half of one percent*.⁴ Even in the

³ Federal Deposit Insurance Corporation, Quarterly Banking Profile, 4rd Quarter, 2013. These figures include \$802 billion in deposits of savings institutions.

⁴ This figure is derived from Investment Company Institute data and reports of portfolio holdings by MMFs. Nearly half of all MMFs invest only in U.S. government or municipal securities, and approximately one-third of all MMFs are "retail" funds available only to retail investors. Thus, the Study's hypothesis, to the extent it has any

unlikely event that MMFs withdrew all of these deposits at once, the U.S. banking system would hardly feel a blip.⁵

It is true that prime MMFs held approximately thirty percent of their assets in dollar denominated bank certificates of deposit as of year-end 2012.⁶ But these deposits were issued almost totally by large *foreign* banks, not U.S. banks. MMFs generally do not invest significant amounts in deposits of U.S. domestic banks. The reason is that few U.S. banks meet the high credit quality standards imposed under SEC regulations applicable to MMFs.⁷ The foreign bank CDs purchased by MMFs are issued by foreign banks with strong backing by stable governments and are regarded as safer than CDs of U.S. banks.⁸ These CDs typically have a short maturity and frequently are hedged by credit-default swaps.

Apart from not being dependent on MMFs for deposits, U.S. banks have the means to increase their access to deposits—even when under stress—by increasing the interest rate paid on deposits, advertising for retail deposits, and soliciting brokered deposits.⁹ In the event of a sudden decrease in deposits, banks have access to funding through the Federal Home Loan Banks and the Federal Reserve’s discount window.¹⁰

credence at all, is limited to a segment of the MMF industry and not the industry as a whole.

⁵ Most of the U.S. bank deposits held by MMFs are issued by banks treated by regulators and the marketplace as “too-big-to-fail” and which have disproportionately large volumes of insured as well as uninsured deposits, as well as access to other sources of funding, including the Federal Reserve’s discount window.

⁶ Source: Investment Company Institute Mutual Fund Fact Book, 2013.

⁷ SEC Rule 2a-7 under the Investment Company Act of 1940.

⁸ MMFs currently hold CDs of European, Japanese, Chinese, Canadian, and Australian banks. MMFs hold no CDs of banks in Greece or other peripheral European countries regarded as potentially unstable.

⁹ See Viral Acharya and Nada Mora, *Are Banks Passive Liquidity Backstops? Deposit Rates and Flows during the 2007-2009 Crisis*, Feb. 5, 2012, available at SSRN.com, 28-29 (“As banks become weak or liquidity-constrained, they may seek to attract deposits by offering higher rates. More broadly, competition for deposits can be intense during a crisis.***[B]anks actively respond to their deteriorating positions—whether liquidity demand risk or solvency risk—by offering higher deposit rates.*** Our results clarify that—even before this crisis—banks exposed most to liquidity demand shocks were actively managing deposit rates to attract deposit inflows...”). Wachovia Bank, for example, was able to raise deposits in a deposit promotion campaign in the summer of 2008 just prior to its failure in September of that year.

¹⁰ A case study of the failure of Wachovia Bank found that the bank collapsed in part because it failed to access the Federal Reserve’s discount window until it was too late. See Federal Reserve Board, “Wachovia Case Study,” available at Financial Crisis Inquiry Commission web archive at:

Banks also have access to funding through the repo market (i.e., the market for repurchase agreements) where MMFs are significant lenders. Research has shown that MMFs actually *increased* their lending in the repo market—i.e., they provided funds to banks—during the financial crisis,¹¹ further contradicting the conclusions of the Reserve Bank Study. In the event of a system-wide crisis such as occurred in 2008, the government has means to maintain deposits at banks and otherwise stabilize the banking system.¹²

Some large banking organizations fund a portion of their assets by issuing short-term commercial paper, which MMFs purchase. The total amount of outstanding financial and asset-backed paper is approximately \$500 billion,¹³ much of which is issued by auto finance companies, not banks, and less than half of which is held by MMFs—a small amount compared to total bank deposits. A banking organization that does not rely excessively on commercial paper to fund long-term assets and complies with the new capital and liquidity requirements under the Dodd-Frank Act should not suffer distress if MMFs stop buying its commercial paper. Moreover, as noted, banks have access to other funding sources, including the Federal Reserve’s discount window, which is designed to help banks meet unusual or emergency funding needs.

Accordingly, the central thesis of the Reserve Bank Study is critically off base and does not support the Study’s intended conclusion that MMFs make the U.S. banking system more fragile and unstable.

C. The Study’s Assumptions Are Wrong

The Study’s assumption that MMF shareholders are better informed than MMF portfolio managers about the condition of individual banks is dubious. MMF portfolio managers have sophisticated monitoring tools and access to information that most investors lack, which is why so many investors invest in MMFs. MMF managers monitor and manage investments on a daily or hourly

http://fcic-static.law.stanford.edu/cdn_media/fcic-docs/2008-11-12%20Federal%20Reserve%20Board,%20Wachovia%20Case%20Study.pdf.

¹¹ Gary Gorton and Andrew Metrick, *Who Ran Repo?* Oct. 4, 2012 (“As it turns out, MMFs were not at all representative during the crisis, with repo assets actually increasing for MMFs by more than \$100 billion at the same time that overall repo liabilities were falling by \$1.3 trillion.”).

¹² During the financial crisis, for example, the government more than doubled the amount of deposit insurance, provided unlimited deposit insurance for noninterest bearing checking accounts, guaranteed the debt of banks *and* their parent holding companies, injected capital into banks, and broadened the types of collateral eligible for central bank loans.

¹³ Source: Federal Reserve Board data.

basis, which is impractical for many MMF investors. MMF managers also have greater means to assess the validity of rumors in the marketplace.

In any case, MMF shareholders are not obligated to communicate to a MMF their reasons for redeeming fund shares—there is no way for a MMF to know why a shareholder redeems shares unless the shareholder volunteers such information, which they generally do not do. To the extent MMF shareholders withdraw from MMFs perceived to have unacceptable risks in their portfolios, and communicate their reasons for doing so, such action exerts beneficial influence on risk-taking by fund managers and helps MMFs maintain high credit quality and safety.

The Study’s assumption that MMFs and their shareholders will “run” from a bank at the first hint of “bad news” is not empirically true. They did not run from banks during the 2007 commercial paper crisis. Nor did they run from JP Morgan Chase Bank, which has been the subject of more bad news during the past two years than almost any other bank. Other large banks have had bad news with hardly a dent in their deposits or profitability.¹⁴ MMF managers carefully analyze a wide range of information in making decisions about any given asset in their investment portfolios. In the event of extreme financial instability, such as occurred in 2008, MMFs and their shareholders may be expected to act with heightened caution.

Implicit in the Reserve Bank Study is the assumption that MMFs and their shareholders are capable of discovering problems at a bank before bank examiners do. Even if true, that is a poor reason to deprive MMFs and their investors of the ability to make prudent investment decisions based on a careful assessment of available information. Banking supervisors should welcome the additional scrutiny provided by MMFs as a form of market discipline against undue risk-taking and unsafe or unsound practices by banks. Indeed, studies have shown that market signals may be more accurate in predicting bank failures than traditional supervisory tools and enable supervisors to respond more quickly to troubled banks.¹⁵

¹⁴ See Hugh Son, Bloomberg, Big Six U.S. Banks’ 2013 Profit Thwarted by Legal Costs, Jan. 9, 2014 (“Combined profit at the six largest U.S. banks jumped last year to the highest level since 2006, even as the firms allocated more than \$18 billion to deal with claims they broke laws or cheated investors.”).

¹⁵ See, e.g., Keith Friend, Economics Department Office of the Comptroller of the Currency Mark Levonian, Promontory Financial Group, Predicting Bank Failures Using a Market-based Measure of Capital, Aug. 21, 2013 (“we find that market signals identify failing banks much farther in advance of failure, potentially providing more time for responses that would reduce the cost of such failures.”).

D. The Study Ignores the Stabilizing Features of MMFs

The Reserve Bank Study either ignores the strengths of MMFs or, somewhat ironically, views them as liabilities to the banking system. The very features of MMFs that the Reserve Bank Study argues are destabilizing to banks are the features that make MMFs stable investments for their shareholders and enable them to act as efficient intermediaries serving a variety of short-term funding needs in the financial system.

SEC rules under the Investment Company Act of 1940 help assure the safety and stability of MMFs by limiting MMF portfolio investments to only high quality, short-term instruments. In general, SEC rules require MMF managers to invest only in securities rated in the top two categories by a nationally recognized ratings organization and to perform an independent credit analysis of every security they purchase. The weighted average maturity of MMF portfolios cannot exceed 60 days. Each MMF must be able to liquidate 10 percent of its assets within one day and 30 percent within five business days.

The short-term, risk-limiting nature of MMF portfolios requires ongoing credit analysis, adherence to strict credit quality standards, and appropriate action by fund managers to protect their portfolios in compliance with SEC rules. Investors invest in MMFs with the confidence that fund portfolio managers will act promptly to manage risks under strained market conditions, including by adjusting their portfolios to shed investments that lose credit quality.

SEC rules require MMF managers to diversify their investments such that investments in any single issuer cannot exceed five percent of a fund's portfolio. Thus, a MMF cannot invest more than five percent of its assets in the deposits or securities of any single bank. This diversification requirement protects MMF investors from concentration risks and incidentally limits the potential for any bank to become overly dependent on a single MMF for deposits.

These and other features of SEC regulation make MMFs safer than bank deposits for many investors and enable MMFs to contribute important liquidity and stability to the financial system.

Because MMF investors have confidence that MMFs are professionally managed and subject to SEC regulation, MMFs provide an important risk buffer within the financial system during times of market stress. Investors often seek the safety of MMFs during periods of uncertainty, enabling MMFs to continue deploying short-term funding to high-quality issuers. Moreover, whereas the Federal Reserve has tools it can use in a crisis to assist MMFs in maintaining market liquidity, as it did in 2008, the central bank's ability to forestall flight by either individual retail or institutional investors is doubtful.

E. The Study Contradicts SEC MMF Reforms

The Study's thesis reflects the view that transparency in the financial marketplace—generally considered a hallmark of the U.S. financial system—is a threat to banking stability. This assumption challenges the essence of the securities laws—disclosure—and contradicts one of the key regulatory reforms adopted by the SEC to enhance the resiliency of MMFs following the financial crisis.

The SEC amended its rules in 2010 to enhance the regulation of MMFs by, among other things, requiring detailed public disclosures by MMFs concerning their portfolios.¹⁶ The amendments require MMFs to report their portfolio holdings monthly to the SEC and to disclose detailed information about their portfolio holdings each month on their websites including, for each investment, the name of the issuer, category of investment, principal amount, maturity date, final legal maturity date, coupon or yield, and amortized cost value.¹⁷

The SEC stated that the enhanced disclosure requirements and other amendments “are designed to make money market funds more resilient to certain short-term market risks and to provide greater protections for investors.”¹⁸ More specifically, the SEC said:

We believe these amendments ... will further limit the risks money market funds may assume by, among other things, requiring them to increase the credit quality of fund portfolios and to reduce the maximum weighted average maturity of their portfolios, and by requiring for the first time that all money market funds maintain liquidity buffers that will help them withstand sudden demands for redemptions. The rule amendments require fund managers to stress test their portfolios against potential economic shocks such as sudden increases in interest rates, heavy redemptions, and potential defaults. They provide investors with more timely, relevant information about fund portfolios to hold fund managers more accountable for the risks they take. They will improve our ability to oversee money market funds. . . . We believe that these reforms collectively will better protect money market fund investors

¹⁶ 75 Fed. Reg. 10060 (March 4, 2010).

¹⁷ In contrast, banks are not required to publicly disclose any information concerning the composition of their loan or investment portfolios.

¹⁸ 75 Fed. Reg. at 10060.

in times of financial market turmoil and lessen the possibility that the money market fund industry will not be able to withstand stresses similar to those experienced in 2007–08. Thus, we believe that each of the rules and rule amendments we are adopting is necessary or appropriate in the public interest and consistent with the protection of investors and the policies and purposes of the Investment Company Act.¹⁹

The Reserve Bank Study suggests, contrarily, that increased MMF disclosures and portfolio risk management threaten the larger financial stability by encouraging MMFs to engage in greater risk-avoidance behavior, particularly as pertains to bank CDs and commercial paper. This view was articulated even more pointedly in another Federal Reserve study, which concluded that the SEC’s 2010 disclosure requirements are a channel for spreading risk that resulted in the transmission of shocks from Europe to the United States in 2011 when MMFs with deposits in European banks experienced heightened redemptions:

Our paper suggests that the transmission of shocks from the European sovereign crisis into U.S. credit markets was facilitated by disclosure requirements for U.S. money market funds implemented in early 2011, which made it easier for investors to monitor the portfolio holdings of money market funds. The European events led to a shift in the degree of information sensitivity of the securities issued by U.S. money market funds.²⁰

* * * * These results provide evidence for the role of investor disclosure requirement in establishing a channel between sovereign risk and the liquidity shocks suffered by U.S. branches of foreign banks in 2011.²¹

* * * * Our findings suggest that a new requirement for U.S. money market funds to disclose their detailed exposures, implemented at the beginning of 2011, further impaired the European banks’ access to U.S. dollar

¹⁹ 75 Fed. Reg. at 10065.

²⁰ Ricardo Correa, Horacio Sapriza, Andrei Zlate, Division of International Finance, Board of Governors of the Federal Reserve System, *Liquidity Shocks, Dollar Funding Costs, and the Bank Lending Channel During the European Sovereign Crisis*, Sept. 28, 2012, at 3.

²¹ *Id.* at 18.

funding. . . . Further research should address these important issues.²²

These Federal Reserve statements are fundamentally inconsistent with the goals of the SEC's 2010 MMF reforms, the purpose of MMF regulation to promote the stability of MMFs, and the overall aim of the securities laws to protect investors and the integrity of the financial markets through transparency and disclosures. These statements indicate a Federal Reserve mindset that views the interests and safety of MMFs, their investors, and the financial markets as a whole as subordinate to banks—both U.S. and foreign—which operate without the degree of transparency, liquidity, and other protections governing MMFs.

F. Other Studies Support a Different Conclusion

Other academic studies indicate that the assumptions and conclusions in the Reserve Bank Study are flawed. Among other things, other studies indicate that depositor behavior is more complex than the Reserve Bank Study supposes.

Studies have shown, for instance, that during the 2008 financial crisis investors who withdrew assets from MMFs deposited them in banks, thereby *increasing* aggregate bank deposits:

[D]eposits shot up by \$188.6 billion dollars in the week of September 17, 2008 relative to the previous week.... This deposit surge after the Lehman failure was visible across both types of deposits and at both large and small banks, though it was marked at the large banks.... These deposit inflows reflected the acute flight to safety out of money market funds immediately after the Lehman failure.... At the same time, households withdrew assets from the stock market and mutual fund shares, which also took a hit around the same time.... Deposit growth was then supported by the adoption of emergency measures by the government.... As a result, deposits poured into banks.²³

Research by FDIC economists shows that depositors other than MMFs—including business, trust, and pension accounts—closely monitor banks and limit their exposure to banks by withdrawing uninsured deposits in response to

²² *Id.* at 19. For a different view arguing that disclosure prevents runs, see Tanju Yorulmazer, *Herd Behavior, Bank Runs and Information Disclosure*, May 21, 2003, available at SSRN.com.

²³ Viral Acharya and Nada Mora, *Are Banks Passive Liquidity Backstops? Deposit Rates and Flows during the 2007-2009 Crisis*, Feb. 5, 2012, at 12, available at SSRN.com.

additional risks assumed by banks.²⁴ Their research also shows that insured as well as uninsured depositors withdraw deposits from a deteriorating bank:

[A]lthough uninsured deposits exited at a greater rate than insured deposits, *the vast majority of deposits withdrawn were fully insured*. Among types of deposit accounts, the rates of withdrawal for fully insured individual, joint, and trust accounts were relatively high. Uninsured business account owners were highly sensitive to the bank's deteriorating condition.²⁵

Other economic research shows that the discipline exerted by uninsured depositors on banks may actually improve bank safety and soundness by incentivizing banks to better monitor their borrowers:

[O]ur results also reveal a heretofore empirically undocumented benefit of uninsured demand deposits: they appear to improve the bank's incentives to monitor borrowers.²⁶

Other studies show that implicit government guarantees of banks erode depositor discipline. For example, one study found that depositors are more likely to run from small banks than large banks, which are perceived to have stronger government backing (i.e., are "too-big-to-fail").²⁷

A study by economists at the Office of the Comptroller of the Currency concluded that market signals about the condition of banks can be a valuable early warning tool for bank supervisors, are more accurate in predicting bank failures than regulatory ratios, and can facilitate early supervisory action and reduce the cost of bank failures:

²⁴ Andrew M. Davenport and Kathleen M. McDill, Federal Deposit Insurance Corporation, *How Depositors Discipline Banks: A Micro-level Case Study of Hamilton Bank*, September 2004 (draft); published as *The Depositor Behind the Discipline: A Micro-level Case Study of Hamilton Bank*, *J. of Fin. Serv. Res.* (2006).

²⁵ *Id.* (emphasis added)

²⁶ Ferguson, Michael F. and Stevenson, Bradley A., *What's Different About Banks? Depositor Discipline and Active Monitoring* (November 16, 2007). Available at SSRN: <http://ssrn.com/abstract=891446>.

²⁷ See Berger, Allen N. and Turk Ariss, Rima, *Do Depositors Discipline Banks and Did Government Actions During the Recent Crisis Reduce this Discipline? An International Perspective* (May 17, 2013). Available at SSRN: <http://ssrn.com/abstract=1706901>.

Supervisors rely on a variety of sources of information to identify problem banks, including non-public information acquired through examinations and ongoing supervision. However, information from financial markets can be a valuable supplemental source of information about the condition of banks. In this paper we consider the ability of equity market data to predict which banks are most likely to fail. We focus on bank failures during the recent financial crisis, and the extent to which equity market signals may have provided valuable early warning about the likelihood of bank failure. We find that signals of bank condition based on equity prices are somewhat more accurate in predicting bank failures than are the regulatory ratios reflected in PCA or measures like the Texas ratio, although not markedly so.

Perhaps more importantly, we find that market signals identify failing banks much farther in advance of failure, potentially providing more time for responses that would reduce the cost of such failures.²⁸

Another study found that *more* disclosure of information concerning a bank's condition is likely to prevent runs on the bank:

The policy measure that will prevent these type of runs is the disclosure of information on the bank's soundness and management of the crisis. A deposit contract can achieve the first-best efficient outcome only in the presence of perfect information about the banks' performance.²⁹

Other studies show that even troubled banks have the ability to raise deposits to delay insolvency. A case study of Wachovia Bank's failure, for example, shows the bank was able to raise deposits three months before its demise, even though the bank's troubles were widely known.³⁰

²⁸ Keith Friend, Economics Department Office of the Comptroller of the Currency Mark Levonian, Promontory Financial Group, Predicting Bank Failures Using a Market-based Measure of Capital, Aug. 21, 2013.

²⁹ Tanju Yorulmazer, Herd Behavior, Bank Runs and Information Disclosure, May 21, 2003 Available at SSRN: <http://ssrn.com/abstract=587481>.

³⁰ See Federal Reserve Board, "Wachovia Case Study," available at Financial Crisis Inquiry Commission web archive at:

http://fcic-static.law.stanford.edu/cdn_media/fcic-docs/2008-11-12%20Federal%20Reserve%20Board,%20Wachovia%20Case%20Study.pdf

G. The Study Fails to Consider the Reverse Hypothesis

The Reserve Bank Study fails to consider the reverse hypothesis—namely, that the banking system might be *less* stable if MMFs did not exist. MMFs add stability to the financial system in several ways not considered by the Study that would be lost if MMFs disappeared.

MMFs contribute important diversity to the financial system. They provide a safe alternative to banks for investors with large cash positions in excess of the federal deposit insurance limit of \$250,000. Without MMFs, many such investors would have no choice but to hold uninsured deposits, most likely in the form of brokered deposits, considered by banking regulators to be more volatile and risky than core insured deposits.³¹ Much of the \$2.7 trillion currently held by MMFs would end up in uninsured deposits at large banks and possibly be even more subject to rapid movement by risk-averse depositors. Banks that are “too-big-to-fail” likely would gain most of the uninsured deposits and thereby become larger and more of a potential taxpayer burden and threat to financial stability.³²

MMFs are an important source of market discipline that guards against undue risk-taking and moral hazard in the banking system. Whereas the Reserve Bank Study views market discipline as a threat to banking stability, former Federal Reserve Chairman Bernanke has said “market discipline is a powerful and proven tool for constraining excessive risk-taking.”³³ Indeed, market discipline is a key element of the bank regulatory system. One of the key purposes of the Financial Stability Oversight Council under the Dodd-Frank Act is “to promote

³¹ See Federal Deposit Insurance Corporation, Study on Core Deposits and Brokered Deposits, July 8, 2011, at 47 (“Brokered deposits are correlated with behaviors that increase the risk of failure.... In addition, brokered deposits tend to increase the FDIC’s losses when a bank fails.”).

³² The Staff Study states, somewhat curiously, that the existence of MMFs results in the investment of more funds in banks than would be the case in the absence of MMFs, but disregards this point as irrelevant in its analysis. See Reserve Bank Study at 8 (“Since monitoring costs are higher under direct finance than under MMF intermediation, the aggregate amount of funds invested in the banking system will be lower. In the rest of the paper, however, we disregard this and carry out our analysis per unit deposited in each bank.”).

³³ Ben S. Bernanke, Chairman, Federal Reserve Board, “Financial Regulation and the Invisible Hand,” Remarks at the New York University Law School, April 11, 2007. See also Kevin Warsh, former Governor, Federal Reserve Board, “Regulation and Its Discontents,” Remarks to the New York Association for Business Economics, Feb. 3, 2010 (“We must resurrect market discipline as a complementary pillar of prudential supervision.”).

market discipline.”³⁴ Market discipline is the third “pillar” of the Basel II supervisory framework and has been incorporated into the Basel III framework as well.³⁵ MMFs are proficient instruments of market discipline without which market discipline would be less effective.

A large body of academic literature supports market discipline as a means of improving bank supervision and safety and soundness.³⁶ Studies have found that market discipline enhances traditional banking supervision in several ways:

Financial market discipline enhances traditional supervision in four specific ways. First, financial markets supplement supervisory assessments of bank risk. Investors and analysts face powerful incentives to price risk correctly—careers and fortunes are at stake with every transaction. They may uncover evidence of risky behavior that eludes supervisors. Second, financial markets penalize risk more incrementally than bank supervisors do. Enforcement actions are blunt instruments; supervisors reserve these tools for institutions with serious safety-and-soundness problems. Financial markets, in contrast, add a basis point here or subtract a basis point there when risk premiums need tweaking. Third, financial markets update their risk assessments more frequently than bank supervisors do. The prices of bank securities can change every minute, whereas, in most cases, examinations take place at 12- to 18-month intervals, and fresh surveillance reports come out at quarterly intervals. Fourth, financial markets help insulate supervision from politics. During the

³⁴ Dodd-Frank Wall Street Reform and Consumer Protection Act § 112.

³⁵ See Regulatory Capital Rules: Regulatory Capital, Implementation of Basel III, Capital Adequacy, Transition Provisions, Prompt Corrective Action, Standardized Approach for Risk-weighted Assets, Market Discipline and Disclosure Requirements, Advanced Approaches Risk-Based Capital Rule, and Market Risk Capital Rule; Final Rule, 78 Fed. Reg. 62018, 62128 (Oct. 11, 2013) (“The agencies have long supported meaningful public disclosure by banking organizations with the objective of improving market discipline and encouraging sound risk-management practices.”).

³⁶ See e.g., Donald P. Morgan and Kevin J. Stiroh, Federal Reserve Bank of New York, Market Discipline of Banks: The Asset Test, *Journal of Financial Services Research*, 2000 (“Overall, these results suggest that investors do price the ex ante credit and other risks implicit in banks’ asset portfolios. Their vigilance should help to deter excessive or inefficient risk taking by banks.”). See also Mark J. Flannery, *Using Market Information in Prudential Bank Supervision: A Review of the U.S. Empirical Evidence*, *Journal of Money, Credit & Banking*, Ohio State University Press, Aug. 1998, Vol. 30 Issue 3.

1980s, politicians pressured savings-and-loan supervisors to keep insolvent institutions open, which, in turn, magnified their losses. It is more difficult for politicians to pressure supervisors to overlook risky practices when financial markets are sending up warning flares.³⁷

By providing market discipline, MMFs contribute financial stability and guard against systemic risk.

In addition to ignoring the benefits of market discipline, the Reserve Bank Study fails to consider the economic benefits that MMFs provide in the form of increased efficiency and competition which strengthen the financial system. MMFs originated some 40 years ago as an alternative to deposits of banks, which paid below-market rates of interest to depositors and charged above-market rates of interest to institutional borrowers of short-term loans. MMFs have played an important role in the financial system ever since, providing an efficient short-term investment alternative for investors of all types and allocating short-term credit to high-quality borrowers.

MMFs meet the needs of a wide range of investors, including pension funds, corporate treasurers, municipal controllers, charitable foundations, bank trust departments, and other entities that invest as fiduciaries, as well as individuals who use MMFs in their retirement plans and investment accounts.

MMFs enable investors to save on monitoring costs and obtain higher levels of diversification than would be possible if investors invested directly in banks or other issuers in the absence of MMFs. Greater diversification enables MMF investors to better minimize risk. MMFs also provide efficiencies to borrowers of short-term credit, including municipalities, corporations, and banks whose commercial paper is held by MMFs. MMFs can provide short-term credit more efficiently than banks because their business model is simpler and more efficient than that of banks, which are designed to assume long-term credit risks and have higher overhead costs.

³⁷ William R. Emmons, R. Alton Gilbert, and Mark D. Vaughan, A Third Pillar of Bank Supervision, Federal Reserve Bank of St. Louis, The Regional Economist, Oct. 2001. See also Richard J. Herring, Professor of International Banking, The Wharton School, How Can the Invisible Hand Strengthen Prudential Supervision? Oct. 21, 2003 (draft) (“In order to enhance market discipline, the Basel Committee should not only improve disclosure standards but also strengthen the motives for a least some claimants to exercise discipline over banks and amplify the impact of market discipline by linking it to supervisory actions. This enhanced market discipline would in turn strengthen prudential regulation and supervision.”).

Our financial system is stronger because of the diversity provided by MMFs and other institutions that provide financial services in addition to banks. Diversity helps ensure that our financial system will remain competitive and capable of meeting diverse financial needs. A diversity of financial regulators also helps ensure that the financial regulatory system will remain vibrant and resistant to regulatory myopia or complacency.

H. MMFs Do Not Cause Banking Fragility or Failures

Contrary to what the Reserve Bank Study implies, MMFs are not the cause of bank fragility or failures. To the extent the banking system is “fragile,” it is due not to MMFs but to bank regulatory policies that have allowed banks to engage in risky lending activities and rely excessively on short-term funding with insufficient capital, liquidity, or risk management.

Regulatory policies have allowed large banks to become even larger since the financial crisis and contributed to banking fragility. The failure of regulators to end the government subsidy inherent in too-big-to-fail banking organizations has exposed taxpayers to potential losses at such banks and perpetuated the perception that such banks are implicitly guaranteed by the government. Studies have shown that the implicit guarantee weakens market discipline³⁸ and increases systemic risk.³⁹

No empirical evidence has ever linked MMFs with the failure of any bank, thousands of which have failed since the early 1980s. The Government Accountability Office studied 414 bank failures that occurred during the period between 2008 and 2011.⁴⁰ The GAO found the failures were driven largely by credit losses on commercial real estate, aggressive growth strategies by banks using nontraditional and riskier funding sources, and weak underwriting and credit administration practices.

³⁸ Acharya, Viral V. and Anginer, Deniz and Warburton, A. Joseph, *The End of Market Discipline? Investor Expectations of Implicit State Guarantees* (Dec. 2013). Available at SSRN: <http://ssrn.com/abstract=1961656> (“This expectation of public support constitutes a subsidy to large financial institutions, allowing them to borrow at government-subsidized rates. We find that passage of Dodd-Frank did not eliminate expectations of government support. The issue of too-big-to-fail remains unresolved.”).

³⁹ Duchin, Ran, and Denis Sosyura, *Safer Ratios, Riskier Portfolios: Banks’ Response to Government Aid*, Univ. Mich. Ross Sch. of Bus., Working Paper No. 1165 (2012) (“This paper has investigated the effect of government assistance on bank risk taking...the net effect is a significant increase in systematic risk and the probability of distress at approved banks.”).

⁴⁰ Government Accountability Office, *Financial Institutions: Causes and Consequences of Recent Bank Failures*, GAO-13-71, Jan 3, 2013.

A study of bank failures in 2008 by the Federal Reserve Bank of St. Louis found the causes of bank failures to be as follows:

The four underlying reasons for bank failures have not changed from those of years' past, which are: an imbalance of risk versus return, failure to diversify, offering products and services that management doesn't fully understand, and poor management of risks.⁴¹

A study by the Federal Reserve Bank of Philadelphia found loan defaults and management deficiencies as causes of bank failures during the financial crisis:

While the influence of consolidation trends, legislative changes, sectoral downturns, and regulatory oversight cannot be dismissed, and though fraud or other extenuating factors play an occasional role, it is generally accepted that most bank failures ultimately stem from the default of a significant portion of the bank's asset portfolio.**** Our analysis of common factors in recent failures reveals that management deficiencies and ineffective board oversight were noted in the majority of material loss reviews. The other contributing factors most frequently cited are construction and land development loan concentrations, rapid loan growth, overreliance on volatile noncore funding, insufficient allowance for loan and lease losses (ALLL), inappropriate or poorly followed loan policies, and weak internal controls.⁴²

None of these or other studies found that MMFs had any role in the failure of any bank.⁴³

⁴¹ Jim Fuchs and Timothy A. Bosch, *Why Are Banks Failing?* Federal Reserve Bank of St. Louis, *Central Banker*, Fall 2009.

⁴² Michael E. Collins, *Supervision Spotlight on the Root Causes of Bank Failures*, Federal Reserve Bank of Philadelphia, 2009.

⁴³ See also Office of the Comptroller of the Currency, *Bank Failure: An Evaluation of the Factors Contributing to the Failure of National Banks*, June 1988 ("management-driven weaknesses played a significant role in the decline of 90 percent of the failed and problem banks the OCC evaluated."); Federal Deposit Insurance Corporation, Office of Inspector General, *Observations from FDIC OIG: Material Loss Reviews Conducted 1993 Through 2003*, January 22, 2004 ("failed banks frequently assume more risk than bank management is capable of handling.").

The failure of Wachovia Bank in September of 2008 is a case in point. A Federal Reserve case study of the bank's failure showed that the \$812 billion bank was weakened by subprime mortgage losses and faced liquidity pressures and depositor outflows, resulting in credit rating downgrades.⁴⁴ The bank was able to raise deposits in a deposit-promotion campaign in the summer of 2008 and the parent holding company appeared to have a "strong liquidity" position as of September 11, 2008, although capital-raising was problematic. In the immediate chaos following the bankruptcy of Lehman Brothers on September 15, 2008, followed by an \$85 billion bailout of AIG the next day, Wachovia's uninsured deposits began to plummet, although it maintained good collateral and cash at the holding company level. On September 25, 2008, banking regulators seized Washington Mutual in what was then the largest bank failure in history due to that institution's subprime mortgage lending activities. In a major miscalculation, the FDIC refused to pay WaMu's bondholders, creating panic among bondholders of other banking organizations. On September 26, 2008, bondholders demanded repayment of \$65 billion in bonds from Wachovia—half of its outstanding notes and bonds. Wachovia's stock price plunged, the FDIC threatened to auction off the bank's assets, and the bank was sold off to Citigroup and later Wells Fargo, wiping out shareholders. The Federal Reserve study concluded that the bank and its supervisors underestimated the impact of reputation risk incurred by the bank, data gaps masked the outflow of deposits, and the bank waited too long to access the Fed's discount window for liquidity (not until September 26). But the catalyst that brought down the bank, according to the case study, was the FDIC's failure to pay WaMu bondholders, preceded by the panic caused by Federal Reserve's handling of Lehman and AIG.⁴⁵

The Wachovia Bank case study did not conclude that MMFs were responsible for the bank's failure. Similar case studies do not implicate MMFs in the failure of any bank during the financial crisis or at any time prior to or since.

I. The Study Fails to Consider Dodd-Frank Act Reforms

The Reserve Bank Study assumes a degree of fragility in the banking system that has been or will be substantially mitigated by reforms required by the Dodd-Frank Act. These reforms include enhanced risk-based and leverage capital standards, stress testing, liquidity requirements, and other prudential standards designed to address the causes of the financial crisis.

⁴⁴ See Federal Reserve Board, "Wachovia Case Study", available at Financial Crisis Inquiry Commission web archive at:

http://fcic-static.law.stanford.edu/cdn_media/fcic-docs/2008-11-12%20Federal%20Reserve%20Board,%20Wachovia%20Case%20Study.pdf.

⁴⁵ Id. at 27 ("non-support for WaMu bondholders was catalyst that brought down WB.").

The Federal Reserve Board recently adopted a final regulation implementing section 165 of the Dodd-Frank Act, which requires the Board to impose on large banking organizations enhanced prudential standards that are “more stringent” than normally apply.⁴⁶ These standards, when fully implemented, should substantially address systemic bank fragility concerns.

Studies have shown that overreliance on short-term funding by banks with insufficient capital and liquidity destabilized the banking system during the financial crisis and increased the severity of the crisis. Under the enhanced prudential standards adopted by the Board, the more a banking organization relies on short-term funding, the larger its required liquidity buffer will be. Although the Board did not adopt a short-term debt limit requirement in connection with the final rule, the Board said it is “continuing to study and evaluate the benefits to systemic stability from imposing limits on short-term debt.”

Nothing in the Dodd-Frank Act or other legislation suggests that Congress has endorsed a public policy that would subordinate the interests of MMF shareholders to the needs of troubled banks. To the contrary, in addition to embracing a policy of stricter capital, liquidity, and supervisory controls on banks, the Dodd-Frank Act enacted a process for the orderly, early resolution of troubled institutions and mandated an end to institutions that are too-big-to-fail.⁴⁷ A banking system without MMFs would likely mean that too-big-to-fail banks would grow even larger, as investors would have fewer alternatives for their cash than bank deposits.

The assumption that a banking system without MMFs would be more stable is fundamentally flawed and contrary to the policies and provisions of the Dodd-Frank Act.

III. CONCLUSION

The Reserve Bank Study fails badly in its unseemly attempt to show that MMFs make the banking system “more fragile” and “more unstable.” The Study’s hypothesis, based on an apocryphal scenario in which MMFs are the only depositors of banks, ignores the reality that MMFs do not hold any systemically significant amount of deposits of U.S. banks. With certain exceptions, uninsured deposits of U.S. banks are not generally considered of sufficient credit quality for investment by MMFs. To the extent MMFs hold commercial paper issued by banks, the amount is small relative to total deposits, and banking regulators have as yet unused authority under the Dodd-Frank Act to impose limits on banks that

⁴⁶ Regulation YY, Docket No. 1438; Enhanced Prudential Standards for Bank Holding Companies and Foreign Banking Organizations, adopted Feb. 18, 2014.

⁴⁷ Dodd-Frank Act, Title I.

rely excessively on short-term funding to finance long-term assets. In any event, MMFs are not an appropriate funding source for troubled banks, which have access to Federal Reserve and other liquidity facilities designed to help banks with funding shortfalls.

The Study disregards the features of MMFs that contribute stability to the financial system and implicitly challenges the transparency regime governing MMFs and the securities markets as a whole. The Study subordinates the safety of MMFs to the interest of banking regulators in keeping troubled banks afloat and supports policies that contravene the Dodd-Frank Act. Other studies disprove its basic thesis. Nothing in the Reserve Bank Study provides credible support for regulatory changes that would diminish the role of MMFs in the financial system.