

SHOOTING THE MESSENGER:
THE FED AND MONEY MARKET FUNDS

by

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March 9, 2012

(Updated and revised April 2, 2012)

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Abstract

The Securities and Exchange Commission is considering regulatory proposals that may threaten the future viability of money market funds (“MMFs”). Industry members believe the SEC is acting under pressure from the Federal Reserve Board to address Fed concerns that MMFs are “susceptible to runs,” part of an unregulated “shadow banking system,” and pose a “systemic threat” to the financial system. According to industry members, the Fed’s narrative on MMFs distorts the facts and obscures the true sources of systemic risk in the financial system. Some in the industry believe the Fed’s attack on MMFs is intended to deflect blame for the financial crisis from itself and the regulated banking industry. Many in the industry surmise that the Fed’s ultimate goal is to eliminate MMFs as competitors of banks.

This paper examines the Fed’s narrative on MMFs and finds it to be inaccurate and misleading in key respects. Among other things, this paper finds no basis for the view that MMFs are “susceptible to runs.” It shows that the “run” that started the financial crisis was not a run on MMFs but a run on bank-sponsored commercial paper during which risk-averse investors fled to MMFs for safety. The “run” by MMF shareholders that did occur in 2008 was caused by the Fed’s sudden reversal of its lender of last resort policy that ignited a massive run on the entire financial system.

This paper looks closely at the commercial paper market, which the Fed has said MMFs destabilized, and finds it to be largely an extension of the banking system operating under Fed supervision. The analysis herein strongly suggests that the Fed’s overriding concern during the crisis was to prop up banks that had effectively guaranteed their asset-backed commercial paper, which risk-averse MMFs no longer would buy. The analysis suggests that the Fed’s liquidity facilities and related regulatory actions that ostensibly benefited MMFs in reality were designed to support banks and the bank commercial paper market and that the bank commercial paper market was the source of systemic risk, not MMFs. Contrary to the Fed’s narrative in which MMFs are part of an unregulated shadow banking system that threatens the financial system, this paper shows that banks are the shadow banking system and MMFs are merely the equivalent of its depositors. Moreover, the Fed subsidized the growth of the shadow banking system by lowering bank capital requirements for bank asset-backed commercial paper activities, thereby sowing the seeds of the financial crisis.

This paper posits that the Fed’s proposals for MMFs—particularly the capital buffer concept—would force MMFs to act as lenders of last resort to the bank commercial paper market—a role for which they are not suited and could lead to their extinction. On the other hand, to the extent the bank commercial paper market provides a useful and cost-effective alternative to loans to finance business activity, MMFs offer efficiencies that can assist this important market while providing a much-needed service to investors that banks cannot provide.

This paper concludes that imposing structural changes on MMFs to prevent a future “flight to safety” by MMF shareholders is equivalent to shooting the messenger who brings bad news and would punish investors for their prudent behavior much as if the government imposed a tax on depositors who withdraw their money from failing banks. Further, regulating MMFs and their shareholders to prevent them from acting in a risk-averse manner is a perverse way of preventing systemic risk. It would seem more appropriate for the Fed to encourage MMFs than to thwart them.

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Executive Summary

To some in the MMF industry, the Fed seems on a mission to eradicate MMFs from the financial system. Although the Fed has no direct regulatory jurisdiction over MMFs, the Fed is pushing for major regulatory changes that MMF representatives say would destroy this \$2.5 trillion industry. MMFs serve as efficient short-term cash management vehicles and investments for corporate treasurers, pension funds, and individual investors. They are major purchasers of commercial paper issued by U.S. businesses to finance their payrolls, inventory, and cash flow. They also hold large amounts of securities that finance municipalities. They have a stellar record of safety, far superior to that of banks.

Then why is the Fed attacking this important financial sector? This paper examines the reasons cited by the Fed and finds them to be misleading and wrong.

Among other things, the Fed says MMFs are subject to runs, part of an unregulated shadow banking system, and a source of systemic risk. This paper shows that MMFs are not subject to runs, are a source of systemic liquidity rather than risk, and are not an operative part of the shadow banking system. Rather, banking organizations constitute the shadow banking system, acting under the supervision of the Fed. Moreover, the bank asset-backed commercial paper market, not MMFs, was the source of systemic risk that threatened the financial system during the recent crisis.

The Fed claims that a run on MMFs in September of 2008 destabilized the commercial paper market and ignited a global financial crisis. This paper shows instead that a run on bank asset-backed commercial paper in 2007 left the banking system effectively insolvent and commenced the crisis, and that the Fed itself precipitated the run on MMFs and the entire financial system in September of 2008.

This paper finds that the Fed's narrative on MMFs ignores or distorts key facts about the financial crisis, the role of MMFs, and the events that occurred. It suggests that the Fed's complaint about MMFs is not that they are risk-prone but

that they are risk-averse. The Fed's misleading narrative is unsupported by any economic analysis or other intellectual underpinnings and may mask a longstanding bias against MMFs, which Fed officials have claimed are a product of regulatory arbitrage and divert deposits from banks. There is no evidence that the Fed has analyzed the potential impact of its proposals on the economy, which is particularly troubling considering the important role of MMFs in the short-term credit markets.

Part I of this paper is the Introduction. Part II describes the basis for the perception that the Fed wants to eliminate MMFs and examines statements by Fed officials that erroneously portray MMFs and cast unseemly blame on them for the financial crisis. It discusses the maturity transformation function of MMFs, which is miniscule compared to that of banks, and shows that MMFs have a far superior record of safety compared to banks. MMFs never experienced a run that resulted in a fund "breaking a dollar" until 2008 when the Fed unexpectedly allowed Lehman Brothers to declare bankruptcy and, even then, only one MMF broke a dollar yet ultimately paid investors almost 99 cents on the dollar.

Part III of the paper posits that the Fed's underlying concern during the financial crisis was to protect banks and the bank commercial paper market, not MMFs and their shareholders. It shows how the commercial paper market is largely an extension of the banking system and how a run on bank asset-backed commercial paper in 2007 began the financial crisis. It argues that the Fed's liquidity facilities, ostensibly established to benefit MMFs, in reality were designed to prop up banks that had massive exposure to their own commercial paper conduits through backup lines of credit and other guarantees. Part III also suggests that MMFs and their shareholders acted prudently in reducing their holdings of bank asset-backed commercial paper and that, unlike banks, MMFs weathered the financial crisis well.

Part IV of the paper contends that the Fed's MMF proposals would exacerbate systemic risk. In particular, the capital buffer proposal would effectively convert MMFs into lenders of last resort for the commercial paper market, a role for which MMFs are not suited and which could cause them to

cease operations. In that event, the commercial paper market would lose a major source of liquidity, uninsured bank deposits would balloon, and the banking system would become more concentrated and potentially unstable. Systemic risk would increase and the taxpayer supported federal safety net would greatly expand. The financial system has benefited from the diversity provided by MMFs, which would be lost if MMFs disappear. Part IV also shows that bank capital rules largely were responsible for regulatory arbitrage by banks that led to undercapitalized risk-taking and the proliferation of risky assets in the bank-sponsored commercial paper market. Banks, not MMFs, need to provide capital to backup the commercial paper they sponsor.

Part V of the paper demonstrates that the Fed's proposals are unsupported by economic research and analysis. The Fed has published no papers discussing the implications of its MMF proposals for the MMF industry, the commercial paper market, the banking system, investors, or the economy. Part V describes an earlier effort by the Fed to regulate MMFs in order to protect banks from competition from MMFs, which may explain an institutional bias in the Fed's perspective on MMFs. Finally, the paper shows that the Fed has been wrong before and should not be accorded unquestioning deference, especially on matters outside its regulatory expertise and jurisdiction.

The Appendix elaborates on the themes set forth in the body of the paper and shows that banks and the bank-sponsored commercial paper market are the main components of the shadow banking system, not MMFs. MMFs rather are the equivalent of "depositors" in the system. The paper shows that the shadow banking system is not "unregulated" as the Fed claims and that banking organizations conduct commercial paper and securitization activities under the Fed's direct supervision. The Appendix looks at the history of these activities and shows how the Fed and other banking regulators authorized banks to engage in such activities despite litigation challenging them under the Glass-Steagall Act.

This paper concludes that the Fed's attack on MMFs is unwarranted, motivated by inappropriate concerns and, given the importance of this industry to the financial system and the economy, potentially irresponsible.

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I. INTRODUCTION

A perception is growing that the Federal Reserve wants to eliminate money market funds (“MMFs”) from the financial system.¹ This perception is based on statements by current and former Fed officials who, ever since the financial crisis of 2008, have suggested that MMFs were at fault and should be subjected to bank-like regulation, particularly capital requirements.² Industry experts say that proposals urged by the Fed would make it impossible for MMFs to function as the efficient cash management and short-term investment vehicles they now are. In view of the important role of MMFs in the financial system, the Fed’s attack on MMFs warrants scrutiny.

The characteristics of MMFs that distinguish them from banks and enable them to play an important role in the financial system have been well-documented elsewhere.³ Among other things, MMFs provide a useful cash management tool for corporate treasurers for whom bank deposits are insufficiently diversified and risky. They are the main purchasers of commercial paper issued by nonfinancial U.S. corporations to finance their payrolls, inventories, and cash flow.⁴ They also purchase

¹ See remarks of Paul Schott Stevens, President, Investment Company Institute, quoted in “Fund Industry Rejects Money Market Proposals,” Bloomberg, Feb. 7, 2012 (“My concern is that within the councils of government there are people whose agenda it is to kill money market funds). See also statement by Investment Company Institute, Executive Council, dated March 14, 2012 (“We are concerned that these changes will eliminate the utility of money market funds for most investors. As a result, these funds no longer would serve, as they do today, as a critical source of financing for businesses, banks, state and local governments, and the federal government.”).

² The Federal Reserve System, consisting of the Board of Governors of the Federal Reserve System, twelve Federal Reserve Banks, and the Federal Open Market Committee, serves as the nation’s central bank and will be referred to herein as “the Fed” as it is colloquially known.

³ See also MMF industry letters submitted in response to Securities and Exchange Commission Release No. IC-29497; File No. 4-619, available at <http://www.sec.gov/comments/4-619/4-619.shtml>.

⁴ Total commercial paper outstanding issued by domestic and foreign nonfinancial issuers in the U.S. totaled approximately \$190 billion as of January 2012. Source: Federal Reserve,

large amounts of short-term securities issued by states and local municipalities. They are used as short-term investments for pension funds, charitable foundations, and individual retirement accounts and 401(k) plans. They are the most efficient intermediary between short-term corporate and municipal borrowers on the one hand and institutional and retail investors on the other. Any impairment of their ability to function efficiently could result in increased funding costs and a loss of funding sources for both the private and public sector.

This paper does not elaborate on the unique positive features of MMFs that make them a vital part of the financial system but rather examines Fed efforts to discredit them and subject them to inappropriate structural changes, particularly capital requirements. Among other things, this paper questions whether the Fed has a proper basis for recommending changes in the regulation of MMFs. The central bank does not have apparent expertise in the operations or regulation of MMFs and its published research and official statements do not indicate that it has performed any in-depth analysis of the economic impact of its MMF restructuring proposals.⁵

Congress has assigned responsibility for the regulation of MMFs to the Securities and Exchange Commission (“SEC”). The SEC has extensive expertise in regulating MMFs under the Investment Company Act and acted quickly after the financial crisis to review its regulations, which it modified in 2010 to further enhance the safety of MMFs. Fed officials have suggested that those changes are not adequate to address the systemic risks posed by MMFs but have not addressed the fundamental differences between MMFs and banks which industry experts have said make capital or other bank-like requirements of the type urged by the Fed unworkable for MMFs.

Commercial Paper Rates and Outstanding Summary (derived from data supplied by The Depository Trust & Clearing Corporation). MMFs are the largest purchasers of this paper.

⁵ Despite its extensive staff of economists and research analysts, the Fed appears to have devoted minimal research to this industry. As noted *infra*, only one recently published research paper on the Fed’s web site focuses on MMFs and that paper suggests that requiring MMFs to maintain a capital buffer would create systemic risk. The Fed has published no research papers addressing the impact on the financial system of its proposals that would impair MMFs.

This paper examines the reasons cited by Fed officials for criticizing MMFs and recommending that they be subject to structural changes. Most of the reasons have to do with “systemic risk” and the Fed’s view that MMFs are part of an unregulated “shadow banking system” and “susceptible to runs.” Yet, as this paper shows, MMFs are highly risk-averse. Historically, they have not been subject to runs. Regulated banking organizations—not MMFs—are the shadow banking system whereas MMFs are merely the equivalent of the system’s depositors.

Fed economists have concluded that the financial crisis started in 2007 with a run—not on MMFs—but on bank-sponsored asset-backed commercial paper (“ABCP”). According to these economists, ABCP is a source of systemic risk. ABCP was at the core of the shadow banking system and provided the means by which banks transmitted the risks of subprime mortgages throughout the financial system.

This paper looks at the experience of MMFs during the financial crisis and concludes that the run on MMFs in 2008 was caused not by anything inherently unstable in MMFs but by the Fed itself when it abruptly changed course and reneged on its publicly avowed commitment to act as the nation’s “lender of last resort” amid a systemic crisis. The run on MMFs was a secondary effect of the run on bank ABCP and occurred only when the crisis appeared to have reached epic proportions beyond the Fed’s control.

This paper concludes that the Fed’s real concern is not future runs on MMFs but runs on the short-term credit markets, particularly bank-sponsored ABCP and other commercial paper on which large banking organizations and nonfinancial corporations depend for funding. The Fed’s reform proposals would force MMFs and their shareholders to serve as stabilizers of the commercial paper market—and indirectly the banking system—a role that Congress intended the Fed, not MMFs, to fulfill. The moral hazard and other systemic risk implications of this result are discussed herein.

This paper reviews earlier attempts by the Fed to subject MMFs to bank-like regulation. Among other things, in 1980 the Fed imposed a temporary reserve requirement on MMFs explicitly designed to shield banks from competition from

MMFs. The Fed’s efforts to impose permanent reserve requirements on MMFs were rebuffed by Congress. This episode may explain an apparent longstanding bias by the Fed against MMFs that may influence its policy aims and skew its perspective on MMFs.

Finally, this paper examines criticism of the Fed’s role in recent and earlier financial crises. Reputable scholars have found that the central bank is far from infallible in understanding how its actions affect the financial system. A number of economists believe that Fed policies exacerbated the recent crisis as well as prior financial crises. There is wide agreement by economists, including Ben Bernanke, that Fed policies gave rise to the Great Depression. This criticism suggests that the Fed’s concepts for financial reform—particularly those relating to MMFs—should not be accepted without close scrutiny.

II. IS THE FED UNFAIRLY ATTACKING MMFs?

A. **A Perception Is Growing That the Fed Wants to Eliminate or Seriously Impair MMFs**

The following perceptions are gaining credence among some observers of the Fed’s recent regulatory activities:

- The Fed is on a mission to eliminate or impair one of the most well-regulated, well-managed, and successful sectors of the financial services industry—money market funds.
- The Fed does not view MMFs as an important part of the financial system but rather as a type of unregulated “shadow bank” that should be subjected to bank-like regulation.
- The Fed has sought to deflect blame from itself and regulated banking organizations to MMFs for the events of 2008 that destabilized the financial system.
- The Fed believes that MMFs divert deposits from banks and wants to encourage MMF shareholders to transfer their short-term cash to banks, which in turn will deposit the cash with the Federal Reserve in the form of excess reserves.
- The Fed is using its role as a member of the Financial Stability Oversight Council to force the SEC into proposing inappropriate

bank-like capital or other requirements that would effectively eliminate MMFs as competitors of banks for short-term cash deposits.

- If MMFs survive, the Fed wants MMFs and their shareholders to serve as lenders of last resort for the commercial paper market and thereby support banking organizations that issue and sponsor asset-backed commercial paper.
- The Fed has maintained an institutional antipathy to MMFs since 1980 when Congress rejected the Fed's attempt to thwart MMFs as competitive alternatives for bank customers seeking a market rate of return on their deposits.
- The Fed's proposed structural changes for MMFs are not supported by economic research and analysis.

These perceptions are based on public statements by current and former Federal Reserve officials, descriptions of behind-the-scenes activities of Fed officials, and close analysis of the Fed's position on MMFs. Federal Reserve officials reportedly have prevailed upon SEC commissioners and staff to move forward with proposals that MMF experts have said will incapacitate the industry. SEC officials in turn reportedly have pressured MMF industry members to develop or support proposals to implement the Fed's regulatory objectives. Fed officials and staff also are thought to be the source of a media campaign painting an erroneous and distorted picture of MMFs.⁶

The MMF restructuring proposals discussed by Fed officials include imposing capital standards and redemption limitations on MMFs, requiring MMFs to offer their

⁶ See, e.g., "Money Fund Make-Over," Wall Street Journal editorial, Feb. 14, 2012; "Money-Market Mayhem," Wall Street Journal editorial, June 27, 2011; "Taxpayers and Money Market Funds," Wall Street Journal editorial, May 9, 2011; "Fed's Lacker Worried About Money Market Funds," MoneyNews.com, Nov. 16, 2011; "Fed's Rosengren Says Money Market Funds May Be Vulnerable to Europe Crisis," Bloomberg.com, June 3, 2011; "Fed's Rosengren: Money Market Funds Should Hold Capital Buffers," RTTNews.com, Sept. 29, 2011; "European Debt Crisis Threatens U.S. Money Market Funds," Huffington Post, Nov. 20, 2011 (quoting Federal Reserve Bank President Rosengren); Sheila Bair, "It's 2012: Do You Know Where Your Money Is?," Huffington Post, March 1, 2012; Sally Krawcheck, "Money Market Funds Aren't What You Think," Wall Street Journal Op-ed, Feb. 28, 2012.

shares with a floating net asset value instead of the current stable \$1.00 NAV, and converting them into special limited purpose “banks.” The Fed argues that such proposals are necessary to ensure that MMFs do not destabilize the financial system in any future crisis. Fed officials more recently have said such proposals are necessary to protect investors who believe their investments in MMFs are 100 percent safe. The MMF industry claims that these proposals are misguided and would dramatically alter the ability of MMFs to function as efficient cash management vehicles for individual and institutional investors. The industry and its supporters say the proposals effectively would “kill” the industry.⁷

Industry perceptions of regulatory proposals by government regulators may be self-interested. Yet some members of Congress have indicated that they share the industry’s perspective and are concerned about the effects of the Fed’s regulatory proposals on MMFs and the economy. At a recent hearing, for example, Senator Schumer questioned Fed Chairman Bernanke about the proposals and asked “what are the risks to the economy and financial system if we were to fundamentally alter the nature of the money market fund?”⁸ A group of other Senators wrote to the SEC

⁷ See MMF industry letters submitted in response to Securities and Exchange Commission Release No. IC-29497; File No. 4-619, available at <http://www.sec.gov/comments/4-619/4-619.shtml>; Letter dated Feb. 16, 2012, from Karrie McMillan, General Counsel, Investment Company Institute, to the SEC. See also remarks by Paul Stevens, President, Investment Company Institute, “Fund Industry Rejects Money Market Proposals,” Bloomberg, Feb. 7, 2012 (“My concern is that within the councils of government there are people whose agenda it is to kill money market funds.”). See also Letter dated March 1, 2012 to the SEC from Scott C. Goebel, Senior Vice President and General Counsel, FMR Corporation (Fidelity Investments) (“We continue to believe that proposals such as floating the NAV, imposing onerous capital requirements or adding burdensome redemption restrictions will ultimately destroy the money market fund industry.”). See also Moody’s Investors Service, “Money Market Funds: 2012 Outlook and 2011 Review,” March 15, 2012 at 11 (“These reforms, if enacted either individually or in some combined form, could dramatically change the nature of money market funds as we now know them.”).

⁸ Hearing before the Senate Committee on Banking, Housing and Urban Affairs on The Semiannual Monetary Policy Report to the Congress, March 1, 2012, questions by Senator Charles Schumer to Fed Chairman Ben S. Bernanke, unofficial transcript of archived hearing at 107-112 minutes. Mr. Bernanke did not answer that question but did say the Fed is concerned about the risk of runs on MMFs and the general impression by some investors that MMFs are 100 percent safe. He spoke favorably about redemption restrictions on MMF

expressing concerns about proposals “to impose inappropriate bank-like requirements” on MMFs that “could cause significant disruptions to the financial system.”⁹ Congressman LaTourette, in a letter to Fed Chairman Bernanke, expressed concern that Fed statements regarding MMFs are designed to pressure the industry into supporting regulatory changes that “could change the fundamental character of money funds and significantly diminish or end their effectiveness for investors and borrowers.”¹⁰

B. Fed Statements Erroneously Portray MMFs and Cast Unseemly Blame on MMFs for the Financial Crisis

Fed officials have made a number of statements blaming MMFs for the recent financial crisis. Among other things, they have described MMFs as “unstable,” “susceptible to runs,” part of an unregulated “shadow banking system,” and a source of “systemic risk.” Fed officials have made these statements in numerous speeches, papers, and testimony before Congress.

These statements are unseemly because, apart from being untrue, they project a disparaging view of a highly successful industry that has contributed greatly to the efficiency and stability of the modern financial system. More troubling, the Fed statements convey a distorted view of the real causes of the financial crisis and suggest that policymakers may be pursuing misguided efforts that ultimately will exacerbate rather than improve financial stability.

shareholders and a capital requirement. A transcript of the complete exchange between Senator Schumer and Chairman Bernanke is included in the Appendix hereto and Mr. Bernanke’s response is discussed further in sections II.B. and V.A. herein.

⁹ Letter dated Nov. 4, 2011, to SEC Chairman Mary Schapiro from Senators Patrick J. Toomey, Michael F. Bennet, Mike Crapo, Jon Tester, Mark Kirk, and Robert Menendez (“We urge you not to adopt solutions that could potentially create disruptions in our fragile economy, impair the ability of businesses to raise capital efficiently, harm retail investors, and increase stress on municipal budgets. Any further proposals should preserve the utility of money market funds for investors and avoid imposing costs that would make large numbers of advisers unwilling or unable to continue to sponsor these funds.”).

¹⁰ Letter dated Feb. 12, 2012, from Congressman Steven C. LaTourette to Federal Reserve Board Chairman Ben S. Bernanke. Excerpts of the letter are included in the Appendix hereto.

Fed officials criticize the signal characteristic of MMFs that makes them so useful as cash management tools—the stable \$1.00 net asset value (NAV)—which these officials liken to the “maturity transformation” function of banks.¹¹ Yet, Fed officials fail to note the essential difference between the maturity transformation function of banks and that of MMFs.¹²

Whereas a bank’s assets are held largely in the form of illiquid assets—such as loans that cannot be liquidated to meet unusual depositor demands—MMF assets are limited to high quality, short-term assets that can be readily sold off to meet redemption requests. That is why MMFs have operated so successfully without deposit insurance and discount window access. Their assets match their \$1.00 NAV for all practical purposes almost dollar for dollar.¹³ The maturity transformation function of MMFs is miniscule compared to that of banks. Banks transform assets with maturities of as long as 30 years into demand liabilities whereas the weighted average maturity of MMFs is 60 days or less as required by SEC regulations.¹⁴

Other significant differences distinguish MMFs from banks. MMFs are required to disclose their portfolio holdings, unlike banks whose assets are highly

¹¹ “Maturity transformation” refers to the process by which assets that mature over a period of more than one day are used to support instruments payable on demand, such as bank demand deposits that are supported by bank loans and other term assets. Although loans cannot be liquidated to repay depositors, interest on loans and other bank earnings provide a source of cash to pay depositors thereby “transforming” the assets into demand deposit liabilities. Unlike banks, which transform long-term assets, MMFs transform short-term assets—such as bank CDs, commercial paper and government securities—into cash-like liabilities. For that reason, MMFs are treated like cash-equivalents by corporate treasurers and other investors.

¹² MMFs are permitted to value their assets at \$1.00 per share because their assets are managed by portfolio managers in compliance with quality, maturity and diversification requirements of SEC Rule 2a-7 and the actual market value of the shares deviates very little from that amount. The net asset value of MMF shares can vary by fractions of a penny each day above or below \$1.00. If the value falls below \$.995, the fund is said to “break a dollar” and must close.

¹³ Indeed, MMFs are not permitted to deviate by more than half a penny from their \$1.00 NAV. Unlike bank deposits, every dollar invested in a MMF is invested by the MMF in an asset that can be readily liquidated.

¹⁴ SEC Rule 2a-7; 17 C.F.R. § 270.2a-7.

opaque to the public and even regulators. MMFs are unleveraged, unlike banks.¹⁵ Further, when a bank fails and is closed, depositors are lucky to receive back 50 percent of their uninsured deposits.¹⁶ In the one instance when a MMF broke a dollar during the financial crisis, fund shareholders got back more than 99 percent of their money.¹⁷

Notwithstanding the design of MMFs to withstand shareholder redemptions under all but the most extreme circumstances, Fed Chairman Bernanke has stated that MMFs are destabilizing to the financial system because they are “subject to runs”:

[T]he Federal Reserve generally and I personally would have to agree that there are still some risks in the money market mutual funds. In particular, they still could be subject to runs.¹⁸

Fed Vice Chairman Yellen has made similar statements concerning the “susceptibility” of MMFs to runs:

[M]oney market funds are still susceptible to liquidity constraints largely because of attributes like their rounded net

¹⁵ See Daniel K. Tarullo, Governor, Federal Reserve Board, “Regulating Systemic Risk,” Remarks at the 2011 Credit Market Symposium (“while money market funds engage in maturity transformation, they have essentially no leverage.”).

¹⁶ This was the case in the failure of IndyMac Bank, for example. See <http://www.fdic.gov/bank/individual/failed/IndyMac.html>.

¹⁷ The MMF in question—Reserve Primary Fund—held a small percentage of its assets in commercial paper and medium term notes issued by Lehman Brothers, which lost value and caused the fund to “break a dollar.” The Treasury’s temporary guarantee program for MMFs may have prevented other prime MMFs from breaking a dollar. Even had other prime MMFs broken a dollar, however, shareholders would have recovered most of their investment to the extent fund assets were invested in ABCP backed by bank letters of credit or other support.

¹⁸ Statement by Federal Reserve Chairman Bernanke during hearing before the Senate Committee on Banking, Housing and Urban Affairs on The Semiannual Monetary Policy Report to the Congress, March 1, 2012, responding to question by Senator Schumer. See transcript of Schumer/Bernanke exchange in Appendix hereto. See also Chairman Ben S. Bernanke, Remarks at the Council on Foreign Relations, Washington, D.C., March 10, 2009, “Financial Reform to Address Systemic Risk.”

asset value (NAV) feature and the low risk tolerance of their investors.¹⁹

Fed Chairman Bernanke has remarked on the “potential systemic implications of instability in the money market mutual fund industry” and stated that the impact of runs on MMFs during the financial crisis is an issue that requires systemic regulation:

[T]he stability of money market mutual funds—which suffered dramatic runs that worsened funding conditions at the height of the crisis—is clearly a systemic issue, not just an industry issue.²⁰

Another Fed Governor has challenged the basic business model of MMFs as being overly “fragile”:

If a small money market fund’s travails can provoke a run on the entire industry, then all such funds should be subject to requirements that reduce the fragility of their business model.²¹

A senior Fed staff official in a major thesis wrote that MMFs are “subject to runs” and stated that this susceptibility increased financial stress in 2008.²² The thesis makes no mention, other than a fleeting reference, of the single event that sparked a panic and run on the entire financial system—the Fed’s unexpected failure to prevent the bankruptcy of Lehman Brothers.

The president of the Federal Reserve Bank of Boston has stated, “despite the regulatory changes that have occurred, MMFs still remain vulnerable to an unexpected

¹⁹ Janet Yellen, “Pursuing Financial Stability at the Federal Reserve.” Speech at the Fourteenth Annual International Banking Conference, Federal Reserve Bank of Chicago, Nov. 11, 2011.

²⁰ Federal Reserve Chairman Ben S. Bernanke, “Implementing a Macroprudential Approach to Supervision and Regulation,” at the 47th Annual Conference on Bank Structure and Competition, May 5, 2011.

²¹ Statement by Federal Reserve Governor Daniel K. Tarullo, “Regulating Systemic Risk,” remarks at the 2011 Credit Markets Symposium, March 31, 2011.

²² Brian F. Madigan, Director, Division of Monetary Affairs, “Bagehot’s Dictum in Practice: Formulating and Implementing Policies to Combat the Financial Crisis,” delivered at the Federal Reserve Bank of Kansas City’s Annual Economic Symposium, Jackson Hole, Wyoming, August 21, 2009 (“The fact that money funds are subject to runs was a significant contributor to the enormous increase in financial stress that occurred in the fall of 2008.”).

credit shock that could cause investors to doubt the ability to redeem at a stable net asset value.”²³ He explicitly urged the imposition of capital requirements on MMFs:

[T]he current structure makes MMMFs particularly susceptible to credit shocks that can turn into liquidity problems for the whole industry. . . . Like other mutual funds, MMMFs are not required to hold any capital as protection against adverse movements in the value of the assets they hold. This absence of capital, together with the stable net asset value, results in a structure that despite its appeal in other ways is prone to shareholder “runs” during times of financial stresses. . . . I believe a more proactive regulatory approach may be necessary. . . . My own preferred approach would be to require MMMFs to have a meaningful capital-like buffer that exceeds, for example, their single-issuer concentration exposure limits—perhaps on the order of 2 to 3 percent. . . .²⁴

Chairman Bernanke in recent testimony before Congress urged consideration of several structural changes for MMFs, including elimination of their signal \$1.00 net asset value and the imposition of capital and redemption restrictions on MMF shareholders:

One alternative would be to go away from the fixed net asset value approach. I think that the industry will reject that pretty categorically and so the question is what else could be done. One approach would be essentially to create some more capital. They have very limited capital at this point. And there might be ways maybe over time to build up the capital base. So that’s one possible approach.

²³ Statement by Eric Rosengren, President, Federal Reserve Bank of Boston (June 3, 2011), <http://www.bostonfed.org/news/speeches/rosengren/2011/060311/index.htm>.

²⁴ Eric S. Rosengren, President and CEO, Federal Reserve Bank of Boston, “Towards Greater Financial Stability in Short-Term Credit Markets,” Remarks at the Global Interdependence Center’s Conference on Capital Markets in the Post Crisis Environment, Sweden, Sept. 29, 2011. He explained further, “Short-term credit markets have become increasingly susceptible to rapid shifts in sentiment—shifts that can create global liquidity problems. The structure of MMFs, even with improvements that make them less at risk of runs, can still cause problems—for example if MMFs move assets quickly out of certain segments of wholesale funding markets. This could happen because of increased credit concerns on the part of either money-market investors or money-market managers.”

Then either complementing that or as a separate approach would be something that involved not allowing the investors to draw out 100 percent immediately. That, if you think about that, what that really does, is that it makes it unattractive to be the first person to withdraw your money and therefore it reduces the risk of runs considerably. It also has an investor protection benefit which is that if you're a "slow" investor, you're not monitoring the situation moment by moment so you're the last guy to take your money out, you're still protected because there's this three percent or whatever.²⁵

Several Fed officials have referred to MMFs as part of an unregulated "shadow banking system" that exposes the financial system to vulnerabilities. Chairman Bernanke has said:

Shadow banks are financial entities **other than regulated depository institutions** (commercial banks, thrifts, and credit unions) that serve as intermediaries to channel savings into investment. Securitization vehicles, ABCP vehicles, **money market funds**, investment banks, mortgage companies, and a variety of other entities are part of the shadow banking system. Before the crisis, the **shadow banking system** had come to play a major role in global finance; with hindsight, we can see that **shadow banking was also the source of some key vulnerabilities**. . . . Critically, shadow banks were, for the most part, not subject to consistent and effective regulatory oversight.²⁶

The former president of the Federal Reserve Bank of Kansas City has said that MMFs are "shadow banks" and create systemic risk. This risk can be eliminated, he said, by requiring MMFs to give up their \$1.00 net asset value.²⁷

²⁵ Statement by Federal Reserve Chairman Bernanke during hearing before the Senate Committee on Banking, Housing and Urban Affairs on The Semiannual Monetary Policy Report to the Congress, March 1, 2012, responding to question by Senator Schumer. See transcript of Schumer/Bernanke exchange in Appendix hereto.

²⁶ Statement by Ben S. Bernanke, Chairman, Federal Reserve Board, before the Financial Crisis Inquiry Commission, Sept. 2, 2010. As shown *infra*, these statements overlook the fact that securitization vehicles and ABCP vehicles are a part of the regulated banking system.

²⁷ Thomas M. Hoenig, President, Federal Reserve Bank of Kansas City, Remarks at the 29th Annual Monetary and Trade Conference, May 24, 2011. See also Thomas M. Hoenig and Charles S. Morris, Federal Reserve Bank of Kansas City, "Restructuring the Banking

Former Fed Chairman Paul Volcker, who unsuccessfully tried to subject MMFs to bank-like regulation in the 1980s, has argued that MMFs are “shadow banks” that divert deposits from banks and should be treated like banks:

[T]hese MMMFs are truly hidden in the shadows of banking markets. The result is to divert what amounts to demand deposits from the regulated banking system. While generally conservatively managed, the funds are demonstrably vulnerable in troubled times to disturbing runs, highlighted in the wake of the Lehman bankruptcy after one large fund had to suspend payments.

The time has clearly come to harness money market funds in a manner that recognizes both their structural importance in **diverting funds from regulated banks** and their destabilizing potential. If indeed they wish to continue to provide on so large a scale a service that mimics commercial bank demand deposits, then strong **capital requirements, official insurance protection, and stronger official surveillance** of investment practices is called for.²⁸

The Fed’s views are reflected in a report by the President’s Working Group on Financial Markets, of which the Fed is a member, which recommended that the SEC consider regulatory options to address the “systemic risks” posed by MMFs:

Although the run on MMFs in 2008 is itself unique in the history of the industry, the events of 2008 underscored the **susceptibility of MMFs to runs**. . . .The effects of the financial turmoil in 2007 and 2008 on MMFs—and, in particular, the run on these funds in September 2008 and its consequences—have highlighted **the need for reforms to mitigate the systemic risks posed by MMFs**.²⁹

System to Improve Safety and Soundness,” May 2011. Hoenig has been nominated by President Obama to be vice chairman of the Federal Deposit Insurance Corporation.

²⁸ “Three Years Later: Unfinished Business in Financial Reform,” The William Taylor Memorial Lecture, Paul A. Volcker, Washington, D.C., Sept. 12, 2011, published in the New York Review of Books, Nov. 11, 2011. See other statements by Mr. Volcker in the Appendix. See also “Volcker Says Money-Market Funds Weaken U.S. Financial System,” Christopher Condon, Bloomberg, Aug. 25, 2009. Volcker is chairman of President Obama’s Economic Recovery Advisory Board.

²⁹ Report of the President’s Working Group on Money Market Fund Reform Options, Oct. 2010 at 13. The President’s Working Group consists of the Secretary of the Treasury and the

The report is based on the Fed’s narrative of events under which a run on MMFs—not any action by the Fed—destabilized the short-term funding markets in 2008:

Several key events during the financial crisis underscored the vulnerability of the financial system to systemic runs. One such event was the September 2008 run on money market funds (MMFs), which began after the failure of Lehman Brothers Holdings, Inc., caused significant capital losses at a large MMF. **Amid broad concerns about the safety of MMFs and other financial institutions, investors rapidly redeemed MMF shares, and the cash needs of MMFs exacerbated strains in the short-term funding markets. These strains, in turn, threatened the broader economy,** as firms and institutions dependent upon those markets for short-term financing found credit increasingly difficult to obtain. **Forceful government action was taken to stop the run,** restore investor confidence, and prevent the development of an even more severe recession. Even so, short-term funding markets remained disrupted for some time.³⁰

Fed officials recently have raised concerns about MMF investments in Europe. The president of the Federal Reserve Bank of Richmond stated on a television program:

I think the major vulnerability of our financial system to Europe has to do with the involvement in the money market funds. That we haven’t fixed the structural problems there. And until we do—they’re vulnerable to flights.³¹

chairmen of the Federal Reserve Board, Securities and Exchange Commission, and Commodity Futures Trading Commission.

³⁰ *Id.* at 1. The President’s Working Group consists of the Secretary of the Treasury and the chairmen of the Federal Reserve Board, Securities and Exchange Commission, and Commodity Futures Trading Commission.

³¹ CNBC Transcript: CNBC’s “Steve Liesman Speaks with Jeffrey Lacker, Richmond Federal Reserve Bank President, on Squawk Box,” Jan. 11, 2012. Mr. Lacker has supported eliminating the \$1.00 stable NAV for MMFs. Letter dated Jan. 10, 2011, from Jeffrey M. Lacker, President, Federal Reserve Bank of Richmond, to the Securities and Exchange Commission (“We find the . . . requirement that all MMFs move to floating net asset values—meaning that shareholder redemptions are paid based on the current market value of fund assets—to be, by far, the most attractive.”).

Former Fed Chairman Volcker stated that MMFs are “adding to the strains on European banking stability”:

Recently, in an effort to maintain some earnings, many of those funds invested heavily in European banks. Now, without the backstop official liquidity, they are actively withdrawing those funds adding to the strains on European banking stability.³²

The president of the Federal Reserve Bank of Boston similarly has criticized MMFs for creating pressures on European banks by reducing their investment exposure to Europe, as if MMFs should be a captive source of funding for Europe and other counterparties in which they invest.³³

The Financial Stability Oversight Council, of which the Fed is a member, has adopted the Fed’s view and warned that MMFs could amplify shocks occurring in Europe and elsewhere in the financial system:

Some major European banks obtain substantial short-term wholesale U.S. dollar funding from U.S. money market funds. Further, money market funds remain an important supplier of cash to the tri-party repo market. **Structural vulnerabilities in money market funds and tri-party repo amplified a number of shocks in the financial crisis.** Reforms undertaken since the crisis have improved resilience, and money market funds report de minimis exposure to Greece, Ireland, and Portugal; however, **amplification of a shock through these channels is still possible.**³⁴

³² “Three Years Later: Unfinished Business in Financial Reform,” The William Taylor Memorial Lecture, Paul A. Volcker, Washington, D.C., Sept. 12, 2011. See also Gretchen Morgenson, “How Mr. Volcker Would Fix It,” New York Times, October 22, 2011 (“Because they are not subject to reserve requirements and capital requirements, they are a point of vulnerability in the system,” he said. “It is really interesting that they did so much lending to European banks. They had to pull back a lot, aggravating the pressures on the European banks.”).

³³ Eric S. Rosengren, President and Chief Executive Officer, Federal Reserve Bank of Boston, “Avoiding Complacency: the U.S. Economic Outlook and Financial Stability,” remarks at the National Institute of Economic and Social Research, March 27, 2012.

³⁴ Financial Stability Oversight Council, 2011 Annual Report at 9. Concerns that European debt holdings threaten the stability of MMFs are not borne out by industry analysts, as discussed, *infra*.

Former Federal Reserve Bank of New York president Timothy Geithner has referred to MMFs as among the “weakest parts” of the financial system, which the government aims to “shut down” or “restructure”:

We have shut down or restructured the weakest parts of our system that played a central role in the crisis. Banks and other financial institutions with more than \$5 trillion in assets at the end of 2007 have been shut down, acquired, or restructured. The asset-backed commercial paper market has shrunk by 70 percent since its peak in 2007, and the tri-party repo market and **prime money market funds have shrunk** by 40 percent and 33 percent respectively since their 2008 peaks.³⁵

The view that MMFs should be “shut down” appears to underlie the Fed’s MMF proposals. Fed researchers have referred to MMFs as the “weakest links” in the shadow banking system and said it is imperative for policymakers to assess whether MMFs should have access to official backstops permanently or “be regulated out of existence.”³⁶ The reason why MMFs are weak links, according to the staff report, ironically is because they are highly risk averse.

Fed researchers have noted that traditional banks could become less competitive relative to MMFs due to capital and liquidity requirements on banking system.³⁷ Given concerns about the stability of the “parallel” banking system in the absence of government guarantees, they ask whether the parallel banking activity—i.e., MMFs—should be subject to prudential regulation or “severely restricted.”³⁸

³⁵ Timothy F. Geithner, Secretary of the Treasury, Remarks on the State of Financial Reform, Feb. 2, 2012, available at <http://www.treasury.gov/press-center/press-releases/Pages/tg1408.aspx>. Geithner serves as Secretary of the Treasury as of this writing. Secretary Geithner has blamed the financial crisis on the “shadow banking system.” See Timothy F. Geithner, “Financial Crisis Amnesia,” *Wall Street Journal*, March 7, 2012 (“A large shadow banking system had developed without meaningful regulation, using trillions of dollars in short-term debt to fund inherently risky financial activity.”)

³⁶ Zoltan Pozsar, Tobias Adrian, Adam Ashcraft, Hayley Boesky, “Shadow Banking,” Federal Reserve Bank of New York Staff Report no. 458 (July 2010) at 6 and 70.

³⁷ *Id.* at 45.

³⁸ *Id.*

At a recent Congressional hearing, Fed Chairman Bernanke was asked, “do money market funds play a useful role in the economy?” He replied, “generally speaking they do.” He added, however, “Europe doesn’t have any,” implying that, if Europe doesn’t need MMFs, then the United States doesn’t either.³⁹

The above statements by Fed officials and staff corroborate the view that the Fed wants to eliminate MMFs as they currently exist. No one questions that the Fed is motivated by concerns to strengthen the resiliency of the financial system. Yet, there is justifiable concern that, by eliminating MMFs, the Fed’s proposals could decrease rather than increase systemic resiliency. There also is evidence that the Fed is interested in protecting the competitive position of banks and their affiliates (which are its main clientele) relative to MMFs.

The following sections of this paper show that the Fed’s narrative concerning the systemic risks of MMFs has major flaws and does not support the restructuring proposals the Fed has urged for MMFs. The Appendix hereto finds reason to suggest that the concept of an unregulated “shadow banking system” is a fiction the Fed has adopted to disguise the fact that the activities which destabilized the financial system were largely under its direct supervision.

C. The Facts Do Not Support Fed Assertions That MMFs Are Prone to Runs

The Fed’s central dogma—that MMFs are “susceptible” to runs and thereby create systemic risk—has little basis in fact.

³⁹ Statement by Ben S. Bernanke in response to a question posed by Senator Charles Schumer during at a hearing by the Senate Committee on Banking, Housing and Urban Affairs, “The Semiannual Monetary Policy Report to the Congress,” March 1, 2012, archived hearing webcast, at 112 minutes. As discussed in section V.A. *infra*, Mr. Bernank’s statement is misleading and incorrect. Bernanke also stated, “I envision that MMFs will be a part of the future of the U.S. financial system,” but said that MMFs present risks to the financial system and are subject to runs. He added, “there are many ways to structure a financial system” and advocated consideration of alternative “strategies” for dealing with MMFs, including capital requirements and redemption restrictions.

The only factual basis for the Fed’s claim is the run experienced by MMFs in 2008 during a time of unprecedented financial instability. As discussed below, the run on MMFs was caused by the Fed itself, not anything inherently unstable in MMFs. Moreover, as described *infra*, the financial crisis was an outgrowth of the 2007 run on the bank-sponsored commercial paper market, not MMFs. That run left the banking system “effectively insolvent.”⁴⁰ MMFs served as a safe haven for investors during the run on bank-sponsored commercial paper and during the financial crisis in 2008.⁴¹

The “run” on MMFs in 2008 was not so much a run as a rapid reallocation of MMF holdings from non-government “prime” MMFs to government-only MMFs. This shift meant that prime MMFs had to rapidly dispose of some of their assets, primarily bank-sponsored commercial paper which, as described below, created pressure on banks and the bank commercial paper market.

Overall, MMFs gained approximately \$750 billion in net assets from January 2008 to January 2009 during the worst of the financial crisis, more than half of which came into MMFs prior to Lehman’s bankruptcy. MMF net assets totaled \$3.2 trillion on January 2, 2008, \$3.6 trillion on September 10, 2008, and \$3.9 trillion on January 14, 2009. MMF net assets on September 10, 2008 totaled \$3.576 trillion (prior to Lehman’s bankruptcy on September 15), dipped to \$3.456 trillion on September 17 and \$3.453 trillion on September 24, 2008, then steadily climbed, peaking at \$3.907 trillion on March 11, 2009.⁴² In the days immediately following Lehman’s bankruptcy, investors (mainly institutional) withdrew approximately \$196 billion from

⁴⁰ Gary B. Gorton and Andrew Metrick, “Securitized Banking and the Run on Repo,” November 9, 2010, Yale ICF Working Paper No. 09-14 (“The U.S. banking system was effectively insolvent for the first time since the Great Depression.”). See also Gary B. Gorton, “Slapped in the Face by the Invisible Hand: Banking and the Panic of 2007” at 37 (“How do we know that the banking system was insolvent? There is no direct evidence, although bank-of-the-envelope calculations suggest that the banking system needed to replace about \$2 trillion of financing. . . .”).

⁴¹ Government-sponsored programs to bolster the financial sector helped to maintain confidence in MMFs as safe investments during 2008. But even before the government programs were instituted, MMFs served as a safe haven for investors.

⁴² Source: Investment Company Institute, Weekly Total Net Assets and Number of Money Market Mutual Funds.

non-government funds and invested approximately \$86 billion in government funds.⁴³ Still, the net assets in non-government funds on September 17, 2008 (\$1.956 trillion) exceeded the net assets in non-government funds on January 2, 2008 (\$1.922 trillion).

Historically, MMFs never have experienced a run that resulted in a fund breaking a dollar, other than the one in 2008. There was no “run” on MMFs prior to that in September of 2008.

A number of MMF sponsors—mainly banking organizations—purchased asset-backed commercial paper from their funds or provided direct liquidity in order to prevent the funds from breaking a dollar during the 2007-08 crisis. A number of MMFs experienced heavy redemption activity. But that did not constitute a run in the classic sense of an uncontrolled panic. To the extent that heavy redemptions did resemble a run, they were part of a larger flight to quality as investors en masse lost confidence in the banking and financial markets.

Similarly, no “run” on MMFs occurred as a result of the sovereign debt crisis in the United States or Europe in 2011. Although MMFs that held European debt experienced outflows, MMFs overall gained net inflows, as the Fed itself observed:

Money market funds, a major provider of funds to short-term funding markets such as those for CP and for repo, experienced significant outflows across fund categories in July [2011], as investors’ focus turned to the deteriorating situation in Europe and to the debt ceiling debate in the United States. Those outflows largely shifted to bank deposits, resulting in significant pressure on the regulatory leverage ratios of a few large banks. However, investments in money market funds rose, on net, over the remainder of 2011, with the composition of those increases reflecting the general tone of increased risk

⁴³ Non-government MMF net assets totaled \$2.152 trillion on September 10, \$1.956 trillion on September 17, \$1.804 trillion on September 14, \$1.719 trillion on October 1, and \$1.703 trillion on October 8, after which they began to climb. Government MMF net assets totaled \$906 trillion on September 10, \$992 trillion on September 17, \$1.164 trillion on September 24, \$1.261 trillion on October 1, and \$1.325 trillion on October 8, continuing to climb to \$3.907 trillion on March 11, 2009. *Id.*

aversion, as government-only funds faced notable inflows while prime funds experienced steady outflows.⁴⁴

Fed concerns that European debt holdings threaten the stability of MMFs are not borne out by industry analysts.⁴⁵ Concerns that MMF withdrawals added to European banking troubles reflect an erroneous view of MMFs as guarantors of the financial system rather than as investment vehicles.

The fact is that MMFs have a record of safety far superior to that of banks. Banks failed by the hundreds during the recent financial crisis and have a long history of failures during prior crises, despite their extensive government supervision, deposit insurance, and access to Fed liquidity.⁴⁶ MMFs have weathered financial crises throughout their 40-year history without access to the federal safety net and have served as a safe haven for investors during times of stress.⁴⁷

⁴⁴ Federal Reserve Board, Monetary Policy Report to Congress, Feb. 29, 2012, at 22.

⁴⁵ Fitch Ratings has said that its outlook for money market funds in 2012 is stable, reflecting ongoing portfolio management that has left MMFs well positioned to manage ongoing credit, liquidity and interest rate conditions. Fitch noted that MMF managers continue to position their portfolios defensively, which will help withstand the volatile credit markets, eurozone uncertainties, historically low interest rates, lack of short term money market instruments being issued, and ongoing regulatory reforms. Fitch noted that MMF managers have reduced or eliminated their exposure to European financial institutions, while increasing available liquidity and holdings of US Treasuries. Fitch Asset Manager Rating Group, “2012 Outlook: Money Market Funds.” See also “Stable Ratings Amid Challenging Market Environment U.S. Money Fund Exposure and European Banks: Euro Zone Diverging,” Fitch Ratings, Jan. 26, 2012. See also Brian Reid, “Dispelling Misinformation on Money Market Funds,” Investment Company Institute at http://www.ici.org/mmf/background/11_mmf_euro_reid. See also Moody’s Investors Service, “Money Market Funds: 2012 Outlook and 2011 Review,” March 15, 2012 (stable outlook).

⁴⁶ From 1980 to March 2012, 1,838 commercial banks failed and another 131 were acquired in assisted transactions at a loss to the FDIC of \$76.4 billion. These institutions had a combined total of \$1.4 trillion in deposits. When savings and loan associations and savings banks are added to the mix, the total number of depository institutions that failed or were sold in assisted transactions during that time period totals 3,433, with \$2.3 trillion in deposits, at a loss to the federal insurance funds of \$188.5 billion. Federal Deposit Insurance Corporation, Historical Statistics on Banking, Table BF01.

⁴⁷ In the 2007-2008 financial crisis, MMF assets increased by nearly \$1.0 trillion, demonstrating investor confidence in MMFs. Source: Investment Company Institute statistical data.

This does not mean that no MMF ever will “break a dollar” again. But such an event has occurred only twice in MMF history. A small fund broke a dollar in 1994 without triggering a run on other MMFs, and investors in that fund got back more than 96 cents on the dollar.⁴⁸ In the case of the Reserve Primary Fund, investors received back more than 99 cents on the dollar, an extraordinary recovery rate compared to investor losses in bank stocks and the stock market.⁴⁹ If the entire financial system had not been in peril at the time, it is unlikely that the Reserve Primary Fund’s breaking a dollar would have had major repercussions on other MMFs.⁵⁰ The SEC itself has stated that it is a “rare occurrence” for a MMF to break a dollar.⁵¹

The potential for a “run” on MMFs is unlike that of a bank run. A classic bank run occurs when uninsured depositors become aware of troubles at a bank and withdraw deposits at a rate faster than the bank can repay them because its assets are locked-up in loans.⁵² In the case of MMFs, absent a systemically destabilizing event, a run is unlikely given regulations that restrict MMFs to investing in high quality, short-term assets that can be liquidated quickly to meet shareholder redemptions. Taxable MMFs are required to maintain 10 percent of their assets in cash or securities that can be liquidated in one day, and all MMFs are required to maintain 30 percent of

⁴⁸ The fund was the Community Bankers U.S. Government Money Market Fund.

⁴⁹ See Resrv Partners, Inc., Press Release dated July 15, 2010 (“Including this seventh distribution, \$50.7 billion, or approximately 99.04% of Fund assets as of the close of business on September 15, 2008, will have been returned to investors.”). Available at: <http://www.primary-yieldplus-inliquidation.com/fundupdate.html>.

⁵⁰ In particular, the Fed’s bailout of AIG the day after Lehman’s bankruptcy signaled to the markets that the financial system was in deeper peril than anyone previously had thought.

⁵¹ Securities and Exchange Commission, Division of Investment Management, Responses to Frequently Asked Questions about The Reserve Fund and Money Market Funds (“A fund whose net assets fall below \$1.00 per share is said to “break a dollar” or “break the buck.” This is a rare occurrence—before the events of September 2008, the last (and only) time a registered money market fund broke a dollar was in 1994.”). Available at:

<http://www.sec.gov/divisions/investment/guidance/reservefundmmffaq.htm>.

⁵² During the financial crisis, uninsured institutional depositors “ran” from Wachovia Bank and other banks before the FDIC announced a program of unlimited insurance, based on questionable legal authority.

their assets in cash or securities that can be liquidated within five business days.⁵³ A MMF may not purchase illiquid securities if after the purchase more than five percent of the fund's portfolio will be illiquid securities.⁵⁴

The “run” on MMFs in 2008 was unlike anything experienced by MMFs before or after the financial crisis and was a direct result of a systemically destabilizing event caused by the Fed. Nevertheless, Fed statements make it appear that MMF shareholders will run at the drop of a hat. For example, a former Reserve Bank president has said:

MMMF investors act more like depositors and will run whenever they are concerned about a fund's safety so they can redeem their shares for \$1 before the fund “breaks the buck” and reduces the value of the shares.⁵⁵

Such statements have led one academic expert to observe:

[T]he debate surrounding MMF risk has veered dangerously from the realm of reality into the realm of rhetoric. To believe certain critics of MMFs, one would think that there has been run on MMFs every year for the last decade, that a few dozen funds failed last week, and that more are likely to fail this afternoon.⁵⁶

SEC Chairman Schapiro recently has adopted the Fed's view that MMFs are “susceptible to runs” due to the risk-averse nature of their investors:

Investors still have incentives to run from money market funds at the first sign of a problem. . . .Whenever there is an

⁵³ These liquidity requirements were adopted by the SEC in 2010 and strengthened liquidity requirements that existed previously. MMFs also must adopt “know your investor” procedures to anticipate the potential for heavy redemptions and adjust their liquidity accordingly.

⁵⁴ An “illiquid” security is one that cannot be sold within seven days at approximately the market value ascribed to it by the fund.

⁵⁵ Thomas M. Hoenig and Charles S. Morris, Federal Reserve Bank of Kansas City, “Restructuring the Banking System to Improve Safety and Soundness,” May 2011.

⁵⁶ Testimony of Mercer E. Bullard, President and Founder of Fund Democracy, Inc. and Associate Professor of Law, University of Mississippi School of Law, before a Subcommittee of the House Financial Services Committee on “Oversight of the Mutual Fund Industry,” June 24, 2011.

unexpected shock to the financial system, or a natural disaster with market moving implications, the staff knows that the first thing I will ask is: “what is the related money market fund exposure?” Money market fund investors are historically very risk averse and are motivated to pull their money—and get their dollar—in advance of any deterioration of value.⁵⁷

Chairman Schapiro noted that MMFs “often go to great lengths to avoid breaking the buck” and have infused their own capital and waived investor fees:

The companies that manage money market funds often go to great lengths to avoid breaking the buck. They have been quick to infuse their own capital to prop up the value of money market funds, and over the past two years they have waived investor fees in order to prevent fund values from falling below \$1.00. SEC staff provided no-action assurances that allowed more than 100 money market funds to enter into capital support agreements with their parent companies in 2007-2008. Without these capital infusions and other support, these funds might have broken the buck, kicking off other destabilizing runs. These numbers underscore the fact that the Reserve Primary Fund’s collapse should not automatically be regarded as an isolated incident.⁵⁸

What Chairman Schapiro fails to mention is that most of the MMF capital support arrangements involved banking organizations supporting affiliated MMFs that held asset-backed commercial paper sponsored by their affiliated banks. A Fed staff research paper has concluded that these support agreements may have created moral hazard and systemic risk:

Bank-affiliated money funds were more likely to receive sponsor support and to hold distressed ABCP in their portfolios....Hence, sponsor support has likely increased investor risk for MMFs. The fact that funds with bank sponsors were more likely to have held distressed ABCP and to have received sponsor bailouts in the wake of the ABCP crisis also suggests that the possibility of sponsor support may undermine incentives for prudent asset management.

⁵⁷ Mary L. Schapiro, Chairman, Securities and Exchange Commission, Remarks at the Society of American Business Editors and Writers Annual Convention, March 15, 2012.

⁵⁸ *Id.*

. . . Furthermore, during the run in 2008, concerns about the ability of sponsors to support their MMFs evidently prompted heavier redemptions from money funds with weaker sponsors, and thus transmitted the sponsors' strains to off-balance-sheet MMFs and into short-term funding markets. Thus, by fostering expectations of implicit recourse to sponsors, past support actions had created a channel for the transmission during crises of strains between entities that should not have been related. Whether or not such support was actually delivered, it may have contributed to financial strains.⁵⁹

The Fed research paper does not conclude, as Chairman Schapiro does, that draconian measures need to be taken to prevent any MMF from ever breaking the buck again. Rather, it concludes that regulators should consider the systemic risks posed by sponsor support of MMFs—particularly support by banking organizations of their affiliated MMFs.⁶⁰ The paper suggests that MMFs—particularly bank-sponsored MMFs—might not have needed sponsor support had stricter controls been imposed on sponsor support earlier.⁶¹ The paper otherwise applauds the “impressive record of price stability” of MMFs.⁶²

As for Chairman Schapiro's remark about MMFs waiving investor fees, it has long been an industry practice to waive fees for yield and other considerations. Fee waivers have no inherent relation to the likelihood of a MMF breaking a dollar and totaled only \$5.2 billion in 2011 in any event.⁶³

Chairman Schapiro alluded to the provision in the Dodd-Frank Act revoking the Treasury's authority to use the Exchange Stabilization Fund to guarantee MMFs in

⁵⁹ Patrick E. McCabe, Senior Economist, Federal Reserve Board, “The Cross Section of Money Market Fund Risks and Financial Crises,” Finance and Economics Discussion Series 2010-51 (2010) at 34-35.

⁶⁰ *Id.* at 2-3 (“The link between sponsor risk and holdings of distressed paper during the ABCP crisis indicates that the sponsor-support option may distort incentives for portfolio managers, and the role of sponsor risk in channeling concerns about financial institutions to their off-balance-sheet MMFs during the 2008 run suggests that expectations for such support may contribute to transmission of financial shocks. These concerns at least warrant greater attention to the systemic risks posed by the MMF industry's reliance on sponsor support.”).

⁶¹ The McCabe research paper is discussed further *infra*.

⁶² McCabe, at 1.

⁶³ Source: Investment Company Institute.

the future. Thus, she concludes, “there would be little regulators could do to manage or stop such a run.” In fact, if another “100-year flood” episode should occur, the Fed could do exactly what it did in 2008—create a liquidity facility to purchase high quality assets from MMFs through banks.⁶⁴ Such action would not be required if regulators instead focus on the true sources of systemic risk in the financial system—particularly within the banking system—and address those weaknesses rather than encumber MMFs with unnecessary structural changes that will impair their ability to serve as a source of safety and liquidity.

D. The Fed Itself Precipitated the Run on MMFs and the Financial System in 2008

To the extent MMFs did experience a “run” for three days during the week of September 15, 2008, that run occurred amid a panic that engulfed the entire financial system.⁶⁵ The “run” on MMFs—and the system as a whole—was precipitated by the Fed itself, not anything structurally unsound in MMFs. The run was a direct consequence of the Fed’s reversal of policy regarding its role as the “lender of last resort” and reneging on an almost explicit commitment of support at the very moment when the financial system most needed its help.

The Fed’s then Director of Monetary Policy has discussed at length the proper role of the central bank as lender of last resort. His thesis argues that the central bank needs to lend broadly to banks as well as nonbanks in times of economic stress:

Providing a virtually unlimited source of liquidity to institutions can avert the fire sales that can lead to decreases in asset values, reductions in wealth, and ultimately a costly contraction in economic activity.⁶⁶

⁶⁴ Although the Dodd-Frank Act limited the Fed’s ability to bailout an individual firm under section 13(3) of the Federal Reserve Act, the Fed still has broad authority to address systemic crises using its section 13(3) authority.

⁶⁵ During the week of September 15, 2008, investors redeemed from prime money market funds approximately \$300 billion, much of which flowed into money market funds that invested only in Treasury securities. Source: Investment Company Institute.

⁶⁶ Brian F. Madigan, Director, Division of Monetary Affairs, “Bagehot’s Dictum in Practice: Formulating and Implementing Policies to Combat the Financial Crisis,” delivered at

The thesis argues that the central bank should lend even to insolvent institutions when the insolvency is caused by a liquidity crisis.

Yet, despite the central bank's broad authority to backstop the nation's financial system in a crisis, the Fed withheld emergency relief from one of the nation's then most systemically important financial firms—Lehman Brothers—whose bankruptcy the Fed knew would have far-reaching destabilizing consequences.⁶⁷ The Fed's action, which amounted to a complete reversal of policy, stunned the already unsettled financial markets.⁶⁸ Within 24-hours after letting Lehman fail, the Fed changed course again and announced a \$85 billion rescue plan for AIG, suggesting that the financial system was even more fragile than had been thought and creating further confusion about the government's strategy and ability to contain the mounting crisis. A run on the entire financial system commenced in earnest.

Six months earlier, the Fed had bailed out Bear Stearns, providing \$28 billion of direct funding to support its takeover by JPMorgan Chase & Co. At the time, the

the Federal Reserve Bank of Kansas City's Annual Economic Symposium, Jackson Hole, Wyoming, August 21, 2009 .

⁶⁷ Fed Chairman Bernanke told the Financial Crisis Inquiry Commission: "We knew—we were very sure that the collapse of Lehman would be catastrophic. We never had any doubt about that. It was going to have huge impacts on funding markets. It would create a huge loss of confidence in other financial firms. It would create pressure on Merrill and Morgan Stanley, if not Goldman, which it eventually did. It would probably bring the short-term money markets into crisis, which we didn't fully anticipate; but, of course, in the end it did bring the commercial paper market and the money market mutual funds under pressure. So there was never any doubt in our minds that it would be a calamity, catastrophe, and that, you know, we should do everything we could to save it." Testimony by Ben Bernanke before the Financial Crisis Inquiry Commission, Transcript dated Nov. 17, 2009. See also Final Report of the National Commission on the Causes of the Financial and Economic Crisis in the United States at 339. See also Statement by Ben S. Bernanke before the House Committee on Financial Services, at a hearing on "Public Policy Issues Raised by the Report of the Lehman Bankruptcy Examiner," April 20, 2010, Serial No. 111–124, at 15-17 ("The Federal Reserve fully understood that the failure of Lehman would shake the financial system and the economy.").

⁶⁸ "[T]he failure of Lehman Brothers in 2008 sparked a conflagration in what was then the very dry tinder of financial markets." Governor Daniel K. Tarullo, Federal Reserve Board, "Regulating Systemic Risk," Remarks at the 2011 Credit Markets Symposium, March 31, 2011.

Fed said such action was necessary to prevent a financial meltdown. Fed Chairman Bernanke explained the Bear Stearns rescue in testimony before Congress as follows:

Normally, the market sorts out which companies survive and which fail, and that is as it should be. However, the issues raised here extended well beyond the fate of one company. Our financial system is extremely complex and interconnected, and Bear Stearns participated extensively in a range of critical markets. **The sudden failure of Bear Stearns likely would have led to a chaotic unwinding of positions in those markets and could have severely shaken confidence.** The company's failure could also have cast doubt on the financial positions of some of Bear Stearns' thousands of counterparties and perhaps of companies with similar businesses. **Given the exceptional pressures on the global economy and financial system, the damage caused by a default by Bear Stearns could have been severe and extremely difficult to contain. Moreover, the adverse impact of a default would not have been confined to the financial system but would have been felt broadly in the real economy** through its effects on asset values and credit availability.

To prevent a disorderly failure of Bear Stearns and the unpredictable but likely severe consequences for market functioning and the broader economy, the Federal Reserve, in close consultation with the Treasury Department, agreed to provide funding to Bear Stearns through JPMorgan Chase. Over the following weekend, JPMorgan Chase agreed to purchase Bear Stearns and assumed Bear's financial obligations.

The purpose of our action, as with our other recent actions—including our provision of liquidity to financial firms and our reductions in the federal funds rate target—**was, as best as possible, to improve the functioning of financial markets and to limit any adverse effects of financial turmoil on the broader economy. We will remain focused on those objectives.**⁶⁹

The Fed Chairman's statement could not have been clearer: the nation's central bank would stand by the financial system and not let a major financial

⁶⁹ Statement of Ben Bernanke, Chairman, Federal Reserve Board, before the Senate Committee on Banking, Housing and Urban Affairs, April 3, 2008.

institution fail. The Fed's position was consistent with its role during numerous prior crises in the preceding thirty years during which it arranged or assisted "bailouts" of troubled financial institutions, automobile companies, and even cities.⁷⁰

Following the Bear Stearns rescue, the Fed began daily on-site monitoring and stress testing of Lehman Brothers. Lehman failed the Fed's stress tests. Yet the Fed did not alter the public perception it had created that it would not let a systemically important investment firm fail.⁷¹

Following the Bear Stearns rescue, some counterparties and market participants, including MMFs, withdrew from Lehman and other firms that were considered weak because of their involvement with bank-sponsored commercial paper. At least one MMF did not—the Reserve Primary Fund. That fund retained a

⁷⁰ The Fed provided extensive support to banks and broker-dealers that held commercial paper of the bankrupt Penn Central Railroad, for example, and assisted federal bailouts of New York City and Chrysler Corporation. The Fed helped negotiate industry bailouts of Long-Term Capital Management—a very large speculative hedge fund—and the Hunt Brothers who infamously attempted to corner the silver market in 1980 with financing from banks that were heavily exposed to potentially destabilizing losses as a result.

⁷¹ See Report of Anton R. Valukas, Examiner, Lehman Brothers Holdings Inc. Chapter 11 Proceedings, Chapter 11 Case No. 08-13555 (JMP), United States Bankruptcy Court, Southern District of New York, at 1488-49 (footnotes omitted) ("The FRBNY developed two new stress scenarios: 'Bear Stearns' and 'Bear Stearns Light.' Lehman failed both tests. The FRBNY then developed a new set of assumptions for an additional round of stress tests, which Lehman also failed. However, Lehman ran stress tests of its own, modeled on similar assumptions, and passed. It does not appear that any agency required any action of Lehman in response to the results of the stress testing.") The Valukas Report shows that, as of May 12, 2008, the Fed knew that Lehman would need to raise \$84 billion to survive a "Bear" run on the bank and \$15 billion to survive a "Bear Light" liquidity event. See Statement by Anton R. Valukas, Examiner, Lehman Brothers Bankruptcy, before the House Committee on Financial Services, "Public Policy Issues Raised by the Report of the Lehman Bankruptcy Examiner," April 20, 2010 ("What is clear is that had the government acted sooner on what it did or should have known, there would have been more opportunities for a soft landing. The markets might have been spared the turmoil of Lehman's abrupt failure. What is clear is that the regulators were not fully engaged and did not direct Lehman to alter the conduct we know in retrospect led Lehman to ruin."). Fed Chairman Bernanke subsequently testified before Congress that "the troubles at Lehman had been well known for some time, and investors clearly recognized—as evidenced, for example, by the high cost of insuring Lehman's debt in the market for credit default swaps—that the failure of the firm was a significant possibility. Thus, we judged that investors and counterparties had had time to take precautionary measures." Statement of Chairman Ben S. Bernanke, "U.S. Financial Markets," before the Senate Committee on Banking, Housing, and Urban Affairs, Sept. 23, 2008.

\$785 billion investment in Lehman’s commercial paper, which was rated AAA until the day of Lehman’s failure.⁷² It is unlikely that the Reserve Primary Fund would have continued to hold Lehman paper had not the Fed assured Congress and the financial markets that it would not let a systemically important financial institution fail.⁷³

When the Fed refused to extend lender of last resort credit to Lehman and allowed the firm to declare bankruptcy on September 15, 2008, Lehman’s commercial paper became almost worthless.⁷⁴ Panic and contagion in the financial markets ensued as investors feared the Fed would allow other institutions to fail, including major bank holding companies.⁷⁵ The Reserve Primary Fund “broke a dollar” and a run on it and other MMFs began.⁷⁶ Banks stopped lending to each other and to their customers. The entire financial system was consumed in panic. Former Fed Chairman Alan Greenspan has described the resulting crisis as the “most virulent global financial

⁷² Lehman paper itself was rated AAA until the day of Lehman’s bankruptcy. Lehman paper represented approximately 1.2 percent of the Reserve Primary Fund’s portfolio. Investment Company Institute, Report of the Money Market Working Group, March 17, 2009, at 57.

⁷³ See Francis X. Diebold and David S. Skeel, Jr., Wall Street Journal, March 27, 2009 (“The Lehman bankruptcy was so destructive because the Fed and Treasury had strongly suggested they would bail out any large troubled investment bank, as they did with Bear Stearns. Regulators’ sudden shift in policy took Lehman and its potential buyers completely by surprise.”).

⁷⁴ Lehman’s bankruptcy became the “largest, most complex, multi-faceted and far-reaching bankruptcy case ever filed in the United States.” Testimony of Harvey Miller, bankruptcy counsel for Lehman Brothers, cited in Report of the Financial Crisis Inquiry Commission at 340.

⁷⁵ See John H. Cochrane, “Lessons from the Financial Crisis,” Regulation, Winter 2009-2010 at 34-35. (“We are left with only one plausible explanation for why Lehman’s failure could have had such wide-ranging effect: After the Bear Stearns bailout earlier in the year, markets came to the conclusion that investment banks and bank holding companies were ‘too big to fail’ and would be bailed out. But when the government did not bail out Lehman, and in fact said it lacked the legal authority to do so, everyone reassessed that expectation. ‘Maybe the government will not, or cannot, bail out Citigroup?’ Suddenly, it made perfect sense to run like mad. . . .The panic was induced by the moral hazard that comes from 30 years of ‘too big to fail’ policies and actions.”).

⁷⁶ It has been reported that the Reserve Primary Fund called the Federal Reserve Bank of New York for assistance shortly before it broke a dollar but the request was denied. See David Wessel, In Fed We Trust, Crown Business, New York (2009) at 206-208.

crisis ever.”⁷⁷ Treasury Secretary Geithner has said, “[t]he Lehman episode was not just a disaster for Lehman. It was a disaster for our country.”⁷⁸ Fed Chairman Bernanke has referred to it as the “worst financial crisis in global history, including the Great Depression.”⁷⁹

The run on MMFs impaired their ability to provide funding to the commercial paper market and other short-term money markets. Without MMFs as purchasers, banks and other commercial paper issuers could not obtain short-term funding to roll over their commercial paper and faced huge unmet funding obligations. Liquidity calls on bank letters of credit guaranteeing bank-sponsored asset-backed commercial paper threatened to deplete bank capital.⁸⁰ Recognizing the important role of MMFs in the flow of funds to the financial markets, the Treasury quickly announced a program to guarantee MMFs temporarily in order to stem redemption requests by MMF shareholders.⁸¹

⁷⁷ Alan Greenspan, “The Crisis,” April 2010, at 3 and 17 (“The bankruptcy of Lehman Brothers in September 2008 precipitated what, in retrospect, is likely to be judged the most virulent global financial crisis ever. . . .Recent evidence suggests that what happened in the wake of the Lehman collapse is likely the most severe global financial crisis ever.”) www.brookings.edu/~media/Files/.../spring2010_greenspan.pdf.

⁷⁸ Statement of Treasury Secretary Timothy F. Geithner before the House Committee on Financial Services, April 20, 2010.

⁷⁹ Testimony of Ben Bernanke before the Financial Crisis Inquiry Commission, Transcript dated Nov. 17, 2009 at 24 (“As a scholar of the Great Depression, I honestly believe that September and October of 2008 was the worst financial crisis in global history, including the Great Depression. . . .out of maybe the 13—13 of the most important financial institutions in the United States, 12 were at risk of failure within a period of a week or two.”).

⁸⁰ See Sandra C. Krieger, Executive Vice President, Federal Reserve Bank of New York, “Reducing the Systemic Risk in Shadow Maturity Transformation,” March 8, 2011 (“The banks did not have the capital to bring all of their off-balance-sheet liabilities onto their balance sheets....”).

⁸¹ Until that time, money market funds had never been federally insured. While tagging the program as “for money market funds,” the Treasury Department described the program as “designed to address temporary dislocations in credit markets.” U.S. Treasury Department, “Treasury Announces Temporary Guarantee Program for Money Market Funds,” press release dated Sept. 29, 2008, hp-1161. The guarantee program terminated a year later, with no claims or losses and a \$1.2 billion gain for the Treasury from fees collected from money market funds.

Nevertheless, the financial panic led to a general freezing up of the credit markets, forcing the Fed to launch massive liquidity facilities to avert a total economic collapse. Two of these facilities were designed specifically to enhance the ability of MMFs to resume their purchases of commercial paper and asset-backed commercial paper and to restore the flow of short-term credit to the economy.

MMFs performed admirably during the crisis. Despite the instability triggered by the Fed's actions, only the Reserve Primary Fund "broke a dollar" and had to be liquidated. Even so, the fund's shareholders got back nearly the full value of their shares—more than 99 cents on the dollar.⁸²

The Treasury's guarantee program was not needed to pay any fund losses and actually produced a \$1.2 billion profit for the Treasury in the form of fees charged to the fund industry. In contrast, the Fed extended loans in excess of \$1 trillion to support the banking industry in the wake of the crisis.⁸³ Even so, hundreds of banks failed amid the economic fallout.

Why the Fed suddenly changed course and failed to come to the aid of Lehman Brothers, which was twice the size of Bear Stearns and even more interconnected in the financial markets, will be studied by economists and academics for decades.⁸⁴

⁸² See Resrv Partners, Inc., Press Release dated July 15, 2010.

⁸³ See Government Accountability Office, Federal Reserve System: Opportunities Exist to Strengthen Policies and Processes for Managing Emergency Assistance, GAO-11-696, July 2011.

⁸⁴ Many economists regard the Fed's decision not to rescue Lehman as having been unexpected. See, e.g., John B. Taylor, "Getting Back on Track: Macroeconomic Policy Lessons from the Financial Crisis, Federal Reserve Bank of St. Louis Review, May/June 2010 at 170 ("... the decision not to intervene was a big surprise."). See also John B. Taylor, "Getting Off Track: How Government Actions and Interventions Caused, Prolonged, and Worsened the Financial Crisis," Hoover Inst Press Publication, 2009. Moreover, the government's promotion of the TARP program to bail out banks following Lehman's bankruptcy created panic. *Id.* ("In the rollout of the TARP, people were warned by the government not only that 'there is systemic risk' but also that 'the Great Depression is coming.' This scared people around the world and led to panic and a severe hit to the world economy."). See also Testimony by Alan H. Meltzer before the House Financial Services Committee, March 17, 2010 ("[W]ithout warning, a 30 year policy changed when Lehman Brothers failed, followed by a hesitant and uncertain lead from Treasury Secretary Paulson. These actions converted a garden-variety recession into a world-wide crisis."). Former SEC

One historian of the Fed has referred to the Fed's erratic policy as "one of the worse blunders in Federal Reserve history."⁸⁵ Some have argued that the Fed succumbed to political pressure after the Bear Stearns rescue to avoid any further bailouts of institutions that were "too-big-to-fail."⁸⁶

Chairman Christopher Cox has suggested that the lack of clarity in the Fed's policy contributed to Lehman's catastrophic demise. Statement by Christopher Cox, former Chairman, SEC, "Public Policy Issues Raised by the Report of the Lehman Bankruptcy Examiner," before the House Committee on Financial Services, April 20, 2010, Serial No. 111-124, at 216.

Global regulators were stunned by the Fed's failure to prevent Lehman's bankruptcy. See David Wessel, *In Fed We Trust*, 2009 at 22 ("Christine Lagarde, the French finance minister, called the decision 'horrendous' in an interview. . . . 'this was a genuine error.' The same complaint came from the European Central Bank. '[T]he failure of Lehman Brothers could have and should have been avoided.' . . . In private, Jean-Claude Trichet, Bernanke's counterpart at the ECB, said the same thing. Another ECB banker a few weeks later confided: . . . 'It never occurred to us that the Americans would let Lehman fail.'").

⁸⁵ Alan H. Meltzer, "What Happened to the 'Depression'?" *Wall Street Journal*, September 1, 2009 ("After 30 years of bailing out almost all large financial firms, the Fed made the horrendous mistake of changing its policy in the midst of a recession. . . . Allowing Lehman to fail without warning is one of the worst blunders in Federal Reserve history..."). Former Fed Vice Chairman Alan Blinder stated in an interview with the PBS News Hour: "I think Lehman not being bailed out was a huge big deal, of epochal, historical importance. I think this is going to be written about in history books like the stock market crash of 1929. It was a seminal event. Everything just fell apart after that." PBS News Hour, July 28, 2009. See also Alan S. Blinder and Mark Zandi, "How the Great Recession Was Brought to an End," July 27, 2010 ("Poor policymaking prior to the TARP helped turn a serious but seemingly controllable financial crisis into an out-of-control panic. Policymakers' uneven treatment of troubled institutions (for example, saving Bear Stearns but letting Lehman fail) created confusion about the rules of the game and uncertainty among shareholders, who dumped their stock, and creditors, who demanded more collateral to provide liquidity to financial institutions."); Alan S. Blinder, "Six Errors on the Path to the Financial Crisis," *New York Times*, Jan. 24, 2009 ("Coming just six months after Bear's rescue, the Lehman decision tossed the presumed rule book out the window. If Bear was too big to fail, how could Lehman, at twice its size, not be? If Bear was too entangled to fail, why was Lehman not? After Lehman went over the cliff, no financial institution seemed safe. So lending froze, and the economy sank like a stone. It was a colossal error, and many people said so at the time.").

⁸⁶ See Final Report of the Financial Crisis Inquiry Commission at 341 ("Thain [head of Merrill Lynch] blamed the failure to bail out Lehman on politicians and regulators who feared the political consequences of rescuing the firm. 'There was a tremendous amount of criticism of what was done with Bear Stearns so that JP Morgan would buy them. . . . It was a combination of political unwillingness to bail out Wall Street and a belief that there needed to be a reinforcement of moral hazard.'"). See also David Lauder and Dave Clarke, "Crisis panel chair: Politics may have doomed Lehman," *Reuters*, Sept. 1, 2010. See also Andrew Ross Sorkin, "Lehman's Last Hours: What Really Happened," *New York Times*, Sept. 6, 2010 ("The decision not to lend to Lehman wasn't just a legal issue, it was made against the

Fed Chairman Bernanke has said that the Fed could not loan to Lehman Brothers because it was insolvent and Lehman did not have good collateral.⁸⁷ But the entire financial system was facing insolvency at that point.⁸⁸ The then Director of Monetary Policy for the Fed has written that the difference between solvency and insolvency is not always clear and the central bank should err on the side of lending.⁸⁹

backdrop of a heated political climate. . . .what is clear is that the politics of the moment played a factor—or at least was discussed among senior and junior staff—in the decision not to lend to Lehman Brothers, perhaps the greatest mistake of the crisis.”).

See also Testimony by Ben Bernanke before the Financial Crisis Inquiry Commission, Transcript dated Nov. 17, 2009 at 27-28 (“Now, why AIG and not Lehman? The problem was—well, to give you a broad perspective, around the world, the United States was the only country to lose a major firm. Everywhere else, countries were able to come in, intervene, prevent these failures. And I think, politically speaking, this is one place where the parliamentary system probably worked better because the prime ministers and the parliamentary leadership were able to get together over the weekend, make decisions, and on Monday morning, able to take those choices. . . . But in the United States, as you know—of course, we don’t have the political flexibility for the government—quote, unquote—to come together and make a fiscal commitment to prevent the collapse of a firm.”). *Id.* at 82-83 (“politics is part of the dynamics of a financial crisis. . . . it’s sort of predictable that there’s going to be a political reaction. . . . There’s been a very seriously political reaction.”). See also David Wessel, *In Fed We Trust*, at 14-18 (quoting Treasury Secretary Paulson as stating “I’m being called Mr. Bailout. . . I can’t do it again,” and New York Reserve Bank President Timothy Geither, “There is no political will for a federal bailout.”).

⁸⁷ Federal Reserve Chairman Ben S. Bernanke, “Lessons from the failure of Lehman Brothers,” Testimony before the House Committee on Financial Services, April 20, 2010. Bernanke has said the Fed lacked legal authority to lend to Lehman. While the Fed needs to act within the limits of its authority, the FDIC by comparison extended unlimited insurance to bank debt and business checking accounts based on doubtful legal authority.

⁸⁸ Gary B. Gorton and Andrew Metrick, “Securitized Banking and the Run on Repo,” November 9, 2010, Yale ICF Working Paper No. 09-14 (“The U.S. banking system was effectively insolvent for the first time since the Great Depression.”). See also Gary B. Gorton, “Slapped in the Face by the Invisible Hand: Banking and the Panic of 2007” at 37 (“How do we know that the banking system was insolvent? There is no direct evidence, although bank-of-the-envelope calculations suggest that the banking system needed to replace about \$2 trillion of financing. . . .”).

⁸⁹ Madigan, *supra*, writes: “[T]he difference between solvency and liquidity is not sharp—insolvency can cause illiquidity and vice versa—and the distinction blurs further in a financial panic. Unless markets are quite liquid, any firm that is forced to sell assets in order to obtain liquidity will see some erosion of its economic capital. In a financial panic, when markets for financial assets may be extremely illiquid, enlarged liquidity premiums can absorb so much of a firm’s economic capital that its solvency can be called into question if it needs to engage in a fire sale of assets, even though in more placid conditions the solvency of the firm may not be in doubt. Thus, the reduction in market liquidity during a panic can reduce the

Moreover, the Fed subsequently made unsecured loans without any collateral to issuers of commercial paper.⁹⁰

The Financial Crisis Inquiry Commission concluded that uncertainty existed as to whether Lehman was insolvent or not, citing testimony that “from a pure accounting standpoint, it was solvent.”⁹¹ The Commission, appointed by Congress to determine the causes of the financial crisis, studied in detail the Fed’s failure to rescue Lehman. Its report emphasized the harm resulting from Lehman’s bankruptcy, citing testimony that it was “a catalyst for systemic consequences throughout the world” and “endangered the viability of the financial system.”⁹²

The Commission noted that the Fed’s authority to lend to distressed firms under section 13(3) of the Federal Reserve Act is “very broad” and requires only that

margin of solvency of financial firms. A key responsibility of central banks is to provide the liquidity to sound banks that is necessary to help them survive bouts of market illiquidity in order to preserve the functioning of the financial system and support economic activity.” The Fed has propped up insolvent institutions before to prevent contagion. See Anna J. Schwartz, “The Misuse of the Fed’s Discount Window,” Federal Reserve Bank of St. Louis, Sept./Oct. 1992 at 64 (“The rescue of Franklin National Bank shifted discount window use from short-term liquidity assistance to long-term support of an insolvent institution pending final resolution of its problems.”).

⁹⁰ See Federal Reserve Board Press Release dated Oct. 7, 2008 announcing creation of the Commercial Paper Funding Facility (CPFF), a facility to purchase unsecured and asset-backed commercial paper directly from issuers.

⁹¹ Final Report of the National Commission on the Causes of the Financial and Economic Crisis in the United States at 325, citing testimony by JP Morgan’s chief risk officer.

⁹² Report at 339. The report noted that on the day Lehman filed for bankruptcy, the Dow plummeted more than 500 points and “\$700 billion in value from retirement plans, government pension funds, and other investment portfolios disappeared.” *Id.* at 339. The Dow plunged even further in the weeks and months that followed. See also Dissent of FCIC Commissioner Peter J. Wallison, Jan. 14, 2011 at 3 (“In this environment, the government’s rescue of Bear Stearns in March of 2008 temporarily calmed investor fears but created a significant moral hazard; investors and other market participants reasonably believed after the rescue of Bear that all large financial institutions would also be rescued if they encountered financial difficulties. However, when Lehman Brothers—an investment bank even larger than Bear—was allowed to fail, market participants were shocked; suddenly, they were forced to consider the financial health of their counterparties, many of which appeared weakened by losses and the capital writedowns required by mark-to-market accounting. This caused a halt to lending and a hoarding of cash—a virtually unprecedented period of market paralysis and panic that we know as the financial crisis of 2008.”).

loans be secured “to the satisfaction of the Federal Reserve.”⁹³ The Commission’s report stated, “the Fed did not furnish to the FCIC any written analysis to illustrate that Lehman lacked sufficient collateral to secure a loan under 13(3).”⁹⁴ The report noted that the Fed’s general counsel concluded that requiring loans under section 13(3) to be fully secured would “undermine the very purpose of section 13(3), which was to make credit available in unusual and exigent circumstances to help restore economic activity.”⁹⁵ The Commission concluded that the Fed’s inconsistency in not rescuing Lehman contributed uncertainty and panic to the financial markets.⁹⁶

The FDIC has estimated that it could have resolved Lehman Brothers at a loss to creditors of only three cents on the dollar using its resolution authority under the Dodd-Frank Act.⁹⁷ If the FDIC’s assumptions and estimates are correct, the Fed’s failure to arrange a rescue of Lehman seems even more unfortunate.

E. A Run on Banks Also Ensued, Requiring Massive Government Intervention

The Fed’s unexpected decision to let Lehman fail, followed by the equally sudden rescue of AIG, also sparked a panic among bank depositors. Of the approximately \$7.0 trillion in bank deposits in 2008, only \$4.5 trillion was insured,

⁹³ Report at 340.

⁹⁴ Report at 341.

⁹⁵ Report at 341, citing Scott G. Alvarez et al., memorandum, “Authority of the Federal Reserve to provide extensions of credit in connection with a commercial paper funding facility (CPFF),” March 9, 2009, p. 7.

⁹⁶ Report at 343 (“Federal government officials decided not to rescue Lehman for a variety of reasons, including the lack of a private firm willing and able to acquire it, uncertainty about Lehman’s potential losses, concerns about moral hazard and political reaction, and erroneous assumptions that Lehman’s failure would have a manageable impact on the financial system because market participants had anticipated it. After the fact, they justified their decision by stating that the Federal Reserve did not have legal authority to rescue Lehman. The inconsistency of federal government decisions in not rescuing Lehman after having rescued Bear Stearns and the GSEs, and immediately before rescuing AIG, added to uncertainty and panic in the financial markets.”).

⁹⁷ Federal Deposit Insurance Corporation, “The Orderly Liquidation of Lehman Brothers Holdings Inc. under the Dodd-Frank Act,” FDIC Quarterly, vol. 5, no. 2 (2011).

leaving \$2.5 trillion in uninsured deposits.⁹⁸ The failure of IndyMac Bank earlier in 2008 already had created pressures on large banks with significant residential mortgage lending operations. Following Lehman's bankruptcy, uninsured depositors began a run on banks perceived to hold substantial toxic mortgage assets, including Washington Mutual and Wachovia.⁹⁹ These two large banks could not survive the run and were sold to other banking organizations.¹⁰⁰

The bank run prompted Congress to increase temporarily, and then permanently, the amount of deposit insurance from \$100,000 to \$250,000 per depositor.¹⁰¹ In addition, the FDIC launched a Temporary Liquidity Guarantee Program for banks that provided unlimited insurance for noninterest bearing business checking accounts and guaranteed debt issued by banking organizations.¹⁰² The unlimited deposit insurance resulted in a substantial increase in potential loss exposure to the FDIC insurance fund, covering \$1.4 trillion in uninsured deposits in excess of

⁹⁸ See Noriel Roubini, "Roubini Sees 'Silent' Run on Banks, Urges 'Triage'", Bloomberg Radio Interview, Oct. 1, 2008 ("In Q2 of 2008 the FDIC reports \$4462bn insured domestic deposits out of \$7036bn total domestic deposits; thus, only 63% of domestic deposits are insured. Thus \$ 2574bn of deposits are not insured.").

⁹⁹ See "Wachovia faced a 'silent' bank run," Charlotte Observer, Oct. 2, 2008 ("Inside Wachovia, executives started noticing customers withdrawing money on Friday morning, following the failure of Washington Mutual on Thursday." See also "Deposit run at WaMu forced their hand, regulators say," Los Angeles Times, Sept. 25, 2008 ("Just as with IndyMac Bank, the fate of Washington Mutual was sealed by a run on deposits as customers lost faith in the bank, federal regulators said Thursday in seizing the nation's biggest thrift. WaMu had continued to assert in recent weeks that it had adequate capital to keep going, despite heavy losses this year on defaulted mortgages. But the Office of Thrift Supervision said "significant deposit outflows" began on Sept. 15. 'During the next eight business days, WaMu deposit outflows totaled \$16.7 billion,' the OTS said in a statement.").

¹⁰⁰ Washington Mutual was sold to J.P. Morgan Chase & Co. In the case of Wachovia, the Fed and FDIC to agree to a \$312 billion loss sharing arrangement with Citigroup as a condition for taking over Wachovia. Wachovia ultimately was acquired by Wells Fargo in a non-federally assisted transaction. See Testimony by Scott G. Alvarez, General Counsel, Federal Reserve Board, before the Financial Crisis Inquiry Commission, Sept. 1, 2010, The Acquisition of Wachovia Corporation by Wells Fargo & Company.

¹⁰¹ See Emergency Economic Stabilization Act, § 136, Pub. L. No. 343, 110th Cong. 2d Sess. § 136 (signed into law Oct. 3, 2008).

¹⁰² FDIC Press Release 100-2008 (Oct. 14, 2008). The FDIC's actions were based on questionable legal authority. See General Accountability Office, "Federal Deposit Insurance Act: Regulators' Use of Systemic Risk Exception Raises Moral Hazard Concerns and Opportunities Exist to Clarify the Provision, GAO-10-100, April 2010, Appendix II.

the \$250,000 insured amount as of year-end 2011.¹⁰³ The debt guarantee program covered \$346 billion in debt issued by banks and their holding companies as of May 2009.¹⁰⁴

In addition to the run on bank deposits, the decision not to rescue Lehman intensified a run by corporate borrowers that drew down committed lines of credit issued by banks. As Fed researchers have documented, these borrowers sought to secure funds from their lending banks out of fear that the money would not be available if the bank failed.¹⁰⁵ This increased borrowing added assets to bank balance sheets, requiring the allocation of capital to support the loans at a time when banks were severely stressed.¹⁰⁶

At the same time, bank capital was being depleted by the collapse of the bank commercial paper market, which had begun in 2007. It is important to understand the “run” on MMFs in the context of these developments—particularly the collapse of the bank commercial paper market, as described below—which shows that the Fed’s

¹⁰³ Federal Deposit Insurance Corporation, Quarterly Banking Profile, 2012, vol. 6, no. 1 at 16.

¹⁰⁴ Federal Deposit Insurance Corporation, Monthly Reports on Debt Issuance Under the Temporary Liquidity Guarantee Program.

¹⁰⁵ Judit Montoriol-Garriga, Federal Reserve Bank of Boston, and Evan Sekeris, Federal Reserve Bank of Richmond, “A Question of Liquidity: The Great Banking Run of 2008?”, Quantitative Analysis Unit, Federal Reserve Bank of Boston, Working Paper No. QAU09-04 (March 30, 2009) (“In other words, when a bank was thought to be at high risk of default, firms that had credit lines with them were more likely to use them than if their credit line was with a healthier bank. This was a run on the banks by investors who ran away from the financial paper market which in turn triggered a run by borrowers of the weakest banks. This sequence of events was made possible by the combination of an increased reliance on the commercial paper market by financial institutions for their short-term liquidity needs and the, often lax, underwriting of credit lines during the good years.”). See also Victoria Ivashina and David Scharfstein, “Bank Lending During the Financial Crisis of 2008,” available at ssrn.com/abstract=1297337, at 2-3 (“We document that there was a simultaneous run by borrowers who drew down their credit lines....firms state that they drew on their credit lines to ensure that they had access to funds at a time when there was widespread concern about the solvency and liquidity of banking sector....These credit line drawdowns were part of “run” on banks that occurred at the height of the crisis.”).

¹⁰⁶ The Fed researchers concluded that banking regulators should strengthen capital requirements for unused lending commitments and prudential oversight of liquidity risk management at banks.

version of events regarding MMFs during the financial crisis is flawed and its structural proposals for MMFs are misdirected.

III. THE FED’S UNDERLYING CONCERN HAS BEEN TO PROTECT BANKS AND THE BANK COMMERCIAL PAPER MARKET, NOT MMFS

The failure of Lehman Brothers was a direct consequence of the implosion of the asset-backed commercial paper market. The implosion began when the housing bubble burst in 2007 and borrowers began to default on unsustainable mortgage debt that had been packaged into securities by banking organizations and investment firms like Lehman and Bear Stearns to feed their commercial paper conduits. The Fed took emergency measures to support the commercial paper market in 2007 but those measures did not dispel ongoing market anxiety that ultimately led to the downfall of Bear Stearns and Lehman in 2008 and destabilized the entire financial system.

The Fed established additional facilities to support the commercial paper market in 2008 following Lehman’s bankruptcy. The Fed has characterized certain of these facilities as supporting MMFs, but the evidence shows that their main purpose and effect was to provide liquidity to bank sponsors and issuers of commercial paper. The regulatory proposals advocated by the Fed for MMFs similarly would support the commercial paper market, which is a part of the regulated banking system, not some “unregulated shadow banking system.”

A. **The Commercial Paper Market Has Become Part of the Banking System**

In order to understand the underlying purpose of the Fed’s emergency MMF facilities—and its MMF restructuring proposals—it is important to understand that a major portion of the commercial paper market operates as an extension of the banking industry. The commercial paper market is dominated by large banking organizations

that use it for self-funding purposes and as a form of credit intermediation for their customers from which they generate revenue.¹⁰⁷

A key component of the commercial paper market in recent years has been asset-backed commercial paper (“ABCP”). ABCP accounted for more than half of the \$2 trillion commercial paper market in August of 2007.¹⁰⁸ ABCP has been said to be “the largest money market instrument in the United States.”¹⁰⁹ Major banks create and sell ABCP to investors.¹¹⁰ MMFs have been the largest purchasers of ABCP.

The prototypical ABCP is short-term debt issued by a special purpose bankruptcy-remote entity created by a bank sponsor. The entity’s assets typically are credit card receivables, commercial loans, auto loans, student loans, and residential mortgages or mortgage-backed securities.¹¹¹ The ABCP entity issues securities—i.e., the commercial paper—backed by its assets. The securities generally are registered with the SEC and sold in public offerings, although some may be privately placed.¹¹²

¹⁰⁷ A smaller portion of commercial paper is issued by captive finance companies (such as GE Capital and auto finance companies) but is guaranteed by bank letters of credit and other bank liquidity enhancements.

¹⁰⁸ Other commercial paper issued by financial institutions accounted for an additional 38 percent. Commercial paper issued by nonfinancial institutions accounted for only 10 percent of the market. Tobias Adrian, Karin Kimbrough, and Dina Marchioni, “The Federal Reserve’s Commercial Paper Funding Facility,” Federal Reserve Bank of New York Economic Policy Review, May 2011 at 27. Investment banks, in addition to commercial banks, were large sponsors of ABCP prior to their absorption into the banking industry during the financial crisis. Treasury bills, by comparison, totaled approximately \$950 billion.

¹⁰⁹ Viral V. Acharya, Philipp Schnabl, and Gustavo Suarez, “Securitization Without Risk Transfer,” Aug. 8, 2011 at 2, available at SSRN.com. As of January 2012, commercial paper outstanding totaled \$976 billion, of which \$446 billion was issued by banks and other financial institutions, \$340 billion was issued by ABCP conduits, and \$190 billion was issued by nonfinancial companies. Source: Federal Reserve Board, Commercial Paper Rates and Outstanding Summary.

¹¹⁰ JPMorgan Chase Bank, for example, is the administrator of three ABCP conduits which had aggregate outstanding ABCP of approximately \$22.25 billion as of June 30, 2011. Letter dated July 14, 2011, from JPMorgan Chase & Co. to the Federal Reserve Board and other banking agencies concerning the agencies’ risk retention proposal.

¹¹¹ Residential mortgage-backed securities (“RMBS”) constituted 35 percent of the dollar amount of all new asset-backed security issuances from 2005-2009. Federal Reserve Board, Report to the Congress on Risk Retention, Oct. 2010, fig. 2.

¹¹² See generally SEC Regulation AB, 17 CFR 229.1100 through 17 CFR 229.1123.

These companies are called “conduits” because they collect and pay out cash receipts and disbursements on the underlying assets. The bank sponsor sets the credit standards, selects assets for the conduit, packages them, monitors their performance, and provides backup liquidity to the ABCP, typically in the form of a letter of credit. Often, banks purchase loans from other financial institutions (such as auto finance companies) and package them in their ABCP conduits.

The commercial paper issued by the conduit is repaid by the cash flow generated by the assets in the conduit and the issuance of new commercial paper. Since most commercial paper issued by conduits matures in less than 90 days, the primary repayment source comes from the re-issuance or “roll over” of existing paper. In addition, the conduit may draw on liquidity facilities provided by the bank sponsor to repay maturing paper if there is a cash flow shortfall.¹¹³ ABCP is a form of securitization that enables banks to aggregate loans and convert them into short-term liabilities that can be sold to investors.¹¹⁴ It enables banks to transfer the risk of holding financial assets off their balance sheet to investors, thereby dispersing the risk. The maturity of ABCP varies typically between 30 and 180 days and usually is re-

¹¹³ Bank sponsors of ABCP typically provide 100 percent liquidity backing whereby the bank is obligated to pay off maturing ABCP if the underlying assets are not in default, but is not obligated to cover credit losses on the assets. However, the liquidity guarantees are structured to effectively cover credit risk because a “default” is defined so that the ABCP matures before a default is declared. See Viral V. Acharya, Phillipp Schnabl, and Gustavo Suarez, “Securitization Without Risk Transfer,” Aug. 8, 2011, available at SSRN.com. The Fed’s BHC Supervision Manual states that ABCP liquidity facilities expose banks to credit risk: “Liquidity facilities supporting ABCP often take the form of commitments to lend to, or to purchase assets from, the ABCP programs in the event that funds are needed to repay maturing commercial paper. Typically, this need for liquidity is due to a timing mismatch between cash collections on the underlying assets in the program and scheduled repayments of the commercial paper issued by the program. A banking organization that provides liquidity facilities to ABCP is exposed to credit risk regardless of the term of the liquidity facilities. For example, an ABCP program may require a liquidity facility to purchase assets from the program at the first sign of deterioration in the credit quality of an asset pool, thereby removing such assets from the program. In such an event, a draw on the liquidity facility exposes the banking organization to credit risk.” Federal Reserve Board, BHC Supervision Manual § 2128.03.3.1, Liquidity Facilities Supporting ABCP.

¹¹⁴ See Appendix for a further description of the securitization activities of banks.

issued or “rolled over” to investors to provide funding until the loans held in the SPV are repaid.¹¹⁵

The success of ABCP depends largely on (i) the ability of the ABCP vehicle to “roll-over” the commercial paper when it becomes due in order to extend the financing, and (ii) commitments by bank sponsors to provide backup letters of credit or other liquidity, which assure a high credit rating and guard against “roll-over risk” (i.e., the risk that purchasers will not renew their purchases of commercial paper).¹¹⁶ Because of the bank backup support and short term of ABCP, investors viewed ABCP as a nearly risk-free investment prior to the financial crisis.

ABCP is an integral part of the federally regulated banking system. The ABCP market could not function without banks. It is a manifestation of the “originate-to-distribute” model of banking, which has largely replaced the traditional model. Instead of holding loans to maturity, banks sell off the loans to investors. As described in the Appendix, banks created ABCP and other securitization vehicles to finance off-balance sheet lending activity as a means of reducing applicable capital requirements and competing with nonbank financial institutions. The Fed and other banking regulators encouraged ABCP activities by banks and their affiliates and developed detailed procedures for supervising such activities.¹¹⁷

ABCP is characterized in Fed speeches and research papers as an element of an unregulated “shadow banking system” that destabilized the financial system.¹¹⁸ As

¹¹⁵ The maturity of ABCP during the financial crisis, to the extent it was rolled over at all, was from one to four days.

¹¹⁶ Investors evaluate ABCP based on the strength of the ABCP sponsor and the credit and liquidity arrangements supporting the ABCP vehicle more so than on the receivables being financed. Maturing ABCP generally is repaid from the net proceeds of new issuances of ABCP rather than from cash flows on the assets in the pool. The most common forms of protection against liquidity risk are backup lines of credit or asset purchase agreements with commercial banks. Banks typically provide a 100 percent liquidity guarantee.

¹¹⁷ See Appendix hereto. The Fed’s BHC Supervision Manual, for example, has a lengthy section providing guidance to Fed inspectors on the supervision of ABCP activities by banks and their affiliates. See also FDIC Credit Card Securitization Manual.

¹¹⁸ See Statement by Federal Reserve Board Chairman Ben S. Bernanke before the Financial Crisis Inquiry Commission, Sept. 2, 2010 (“*Shadow banks* are financial entities

explained in detail in the Appendix, this view is incorrect insofar as it portrays ABCP as anything but an integral part of the banking system.

B. A Run on Bank ABCP Started the Financial Crisis

The financial crisis began not with the Lehman bankruptcy and the flight to safety by MMF shareholders in 2008 but with a run on bank ABCP in August of 2007, fueled by the bursting of the housing bubble.¹¹⁹

When residential mortgages began to default in 2007, the value of assets held by ABCP conduits came into doubt. The conduits included subprime mortgages bought, securitized, and packaged by bank sponsors for sale to investors.¹²⁰ The credit rating agencies downgraded ABCP and investors pulled back from the ABCP market.¹²¹ As a result, ABCP conduits could not readily roll over their ABCP and the maturity of ABCP shortened dramatically.¹²² A “run” on bank ABCP ensued. Bank sponsors faced substantial liquidity claims on their letters of credit and other guarantees backing their ABCP conduits.

other than regulated depository institutions (commercial banks, thrifts, and credit unions) that serve as intermediaries to channel savings into investment. Securitization vehicles, ABCP vehicles, money market funds, investment banks, mortgage companies, and a variety of other entities are part of the shadow banking system.”). See also Zoltan Pozsar, Tobias Adrian, Adam Ashcraft, Hayley Boesky, “Shadow Banking,” Federal Reserve Bank of New York Staff Report no. 458 (July 2010).

¹¹⁹ The housing bubble was the product of misguided federal housing finance policies, flawed underwriting standards, lax monetary policy, and a variety of other factors that have been described elsewhere and will not be addressed here.

¹²⁰ See Gary B. Gorton, “The Panic of 2007,” NBER Working Paper No. 14358, September 2008 (“The ongoing Panic of 2007 is due to a loss of information about the location and size of risks of loss due to default on a number of interlinked securities, special purpose vehicles, and derivatives, all related to subprime mortgages.”).

¹²¹ Tobias Adrian, Karin Kimbrough, and Dina Marchioni, “The Federal Reserve’s Commercial Paper Funding Facility,” Federal Reserve Bank of New York Economic Policy Review, May 2011, at 29 (“The commercial paper market was vulnerable to the credit, rollover, and liquidity risks that, although small in a period of stable rates and high liquidity, emerged in the wake of the Lehman crisis. Investors shunned commercial paper issuers that had previously been considered of high quality but were now thought to be candidates for default...These inherent risks in commercial paper were heightened as money market mutual funds, the principal investors in commercial paper, retreated from the market.”).

¹²² More than 75 percent of commercial paper issued after Lehman’s bankruptcy had a maturity of only one to four days. Tobias Adrian et al. at 36.

Nonfinancial corporations that relied on commercial paper to fund their payrolls and inventories faced difficulty rolling over their paper. These included top companies such as John Deere, Coca Cola, Caterpillar, and General Electric.¹²³

The run on ABCP led to a run in the “repo” market—that is, the market in which financial institutions fund each other on an overnight or short-term basis through agreements to sell and repurchase various forms of collateral. In 2007, the main collateral was ABCP, along with government securities. The run on repo occurred when banks and other financial firms refused to renew repo agreements or increased the margin or “haircut” on repos collateralized by ABCP, further squeezing liquidity out of the market.¹²⁴

Professor Gorton has vividly described the full-blown panic that ensued:

The forces that hit financial markets in the U.S. in the summer of 2007 seemed like a force of nature, something akin to a hurricane, or an earthquake, something beyond human control. In August of that year, credit markets ceased to function completely.¹²⁵

MMFs were substantial investors in ABCP in 2007.¹²⁶ Like other purchasers of ABCP, MMFs refused to roll over their ABCP holdings when the quality of the

¹²³ Although nonfinancial corporations issue bonds as their principal source of funding, they also are major commercial paper issuers and had \$190 billion in commercial paper outstanding in January of 2012. Source: Federal Reserve Board, Commercial Paper Rates and Outstanding Summary.

¹²⁴ The run on repo is described in Gary B. Gorton, “Slapped in the Face by the Invisible Hand: Banking and the Panic of 2007,” prepared for the Federal Reserve Bank of Atlanta’s 2009 Financial Markets Conference: Financial Innovation and Crisis, May 9, 2009. See also Gary B. Gorton and Andrew Metrick, “Securitized Banking and the Run on Repo,” November 9, 2010, Yale ICF Working Paper No. 09-14. See also Final Report of the Financial Crisis Inquiry Commission, at 288.

¹²⁵ Gary B. Gorton, “The Panic of 2007,” NBER Working Paper No. 14358, September 2008.

¹²⁶ Nevertheless, under SEC regulations in effect in 2008, MMFs could not hold more than five percent of their assets in securities of any single ABCP conduit with the highest credit rating and not more than one percent of their assets in securities of any single ABCP conduit with the second-highest rating. Total holdings of ABCP securities with the second-highest rating could not exceed five percent of a MMF’s assets. These regulations were made even stricter in 2010.

underlying assets became uncertain.¹²⁷ Many MMF shareholders withdrew from MMFs that held large amounts of ABCP and invested in MMFs that held mainly Treasury securities.¹²⁸

Some MMF sponsors purchased ABCP from their funds or otherwise supported the funds in order to maintain the funds' \$1.00 net asset value. A Fed staff study found that bank-affiliated MMFs—that is, MMFs whose investment advisers are banks or affiliates of banks—required more support than non-bank-affiliated MMFs.¹²⁹

Total bank assets ballooned as banks were forced to buy back their ABCP and hold ABCP assets directly on their balance sheets, creating extraordinary pressures on

¹²⁷ MMFs held approximately \$745 billion in commercial paper in 2007, of which a large amount was ABCP before the “run” on ABCP. Commercial paper constituted approximately one-third of the assets held by prime MMFs in January of 2007. See Marcin Kacperczyk and Philipp Schnabl, “When Safe Proved Risky: Commercial Paper During the Financial Crisis of 2007-2008,” *Journal of Economic Perspectives*, Vol. 24, No. 1 (Winter 2010) at 35-36. At the end of 2007, MMFs held about \$285 billion of the \$840 billion in ABCP outstanding. Federal Reserve Board, Report Pursuant to Section 129 of the Emergency Economic Stabilization Act of 2008: Asset-Backed Commercial Paper Money Market Mutual Fund Liquidity Facility.

¹²⁸ Approximately two-thirds of all MMFs are prime funds that invest in commercial paper, bank CDs, and other short-term money market instruments. The remainder of MMFs invest only in government securities.

¹²⁹ Patrick E. McCabe, Senior Economist, Federal Reserve Board, “The Cross Section of Money Market Fund Risks and Financial Crises,” Finance and Economics Discussion Series 2010-51 (2010). The SEC has suggested the reason for the higher incidence of sponsor support for bank-affiliated MMFs is that bank-affiliated MMFs held more risky ABCP than non-bank-affiliated MMFs and were managed less prudently. Money Market Fund Reform, Securities and Exchange Commission Release No. IC-28807; File No. S7-11-09, at 41. The SEC granted approximately 44 exceptions from the Investment Company Act to allow fund sponsors to provide various forms of financial support to their affiliated funds during 2007-2008. By far, the majority of these fund sponsors were affiliated with banks. Public company filings by bank holding companies with the SEC show that nearly all of the substantial MMF support arrangements involved bank-affiliated funds and nearly all banking organizations with affiliated MMFs funds supported one or more of their funds. The SEC's Chief Accountant issued an advisory that that bank support for affiliated MMFs would not require consolidation for accounting purposes. See “SEC Issues Clarification on Accounting Issues Relating to Bank Support for Money Market Mutual Funds,” Securities and Exchange Commission Press Release 2008-205, Sept. 17, 2008.

bank capital.¹³⁰ The total amount of bank exposure to ABCP and other commercial paper backup liquidity claims may have been well in excess of \$100 billion.¹³¹ This amount threatened to deplete the sponsoring banks' capital, especially with mark-to-market accounting applicable to ABCP collateral coming onto bank balance sheets.

A Fed economist has described the run on bank ABCP conduits and the resulting fallout as follows:

Money market funds quickly dumped all their ABCP holdings, and with no other investor willing to step in, the lifeline of conduits and SIVs was cut off A run on the shadow banking [system] ensued. This is when conduits' contractual **liquidity backstops provided by commercial banks (or more precisely, the commercial bank arms of bank holding companies) kicked in**, leading to a **massive re-intermediation of loans back on to regulated banks' balance sheets[]**. SIVs did not have contractual backstops with banks, but banks chose bring them onto their balance sheets nonetheless, due to reputational reasons and to avoid the fire sale of SIVs' AAA rated assets at depressed prices. **This involuntary expansion in bank balance sheets (and simultaneous realization of mark-to-market losses as assets were reintermediated at depressed prices) depressed**

¹³⁰ See Sandra C. Krieger, Executive Vice President, Federal Reserve Bank of New York, "Reducing the Systemic Risk in Shadow Maturity Transformation," March 8, 2011 ("The banks did not have the capital to bring all of their off-balance-sheet liabilities onto their balance sheets...."). See also Tobias Adrian, Karin Kimbrough, and Dina Marchioni, "The Federal Reserve's Commercial Paper Funding Facility," Federal Reserve Bank of New York Economic Policy Review, May 2011, at 27 ("Between September 2007 and January 2008, total assets of commercial banks grew unusually fast as many ABS [asset-backed securities] that were previously funded in the ABCP market were moved from the balance sheets of ABCP issuers to those of commercial banks.").

¹³¹ For example, assuming that the total amount of ABCP outstanding was approximately \$1.2 trillion in August of 2007, and assuming an average maturity of ABCP of 30 days, nearly one-quarter of the outstanding ABCP would have reached maturity during one week in August, with few investors willing to roll it over. Thus, bank ABCP sponsors may have faced liquidity claims on as much as one-quarter of the total outstanding ABCP that reached maturity, or over \$300 billion in our example. The size of the bank exposure may be gauged by the amount of ABCP ultimately purchased by the Fed through its ABCP and commercial paper liquidity facilities, which was in the hundreds of billions. In addition, Fed data shows an almost \$100 billion spike in bank C&I loans immediately following Lehman's bankruptcy, suggesting that banks experienced substantial draw downs on lines of credit backing maturing ABCP and other commercial paper.

capital ratios and forced banks to pull back on discretionary lending. The pullback in discretionary lending and heightened counterparty risk led to massive strains in interbank lending.¹³²

To address this alarming scenario, with potentially crushing liquidity claims on banks that had issued letters of credit and other guarantees backing their ABCP conduits, the Fed injected liquidity into the market and began a sustained program of monetary policy actions that reduced short-term interest rates at an unprecedented pace.¹³³ In December 2007, the Fed established a Term Auction Facility (TAF) to provide short-term loans to banks secured by a wide range of collateral including residential mortgages, mortgage-backed securities, and collateralized mortgage obligations—in other words, assets held by ABCP conduits.¹³⁴ Aggregate liquidity under this program totaled \$3.8 trillion from December 2007 through January 2010.¹³⁵

Some economists have referred to the 2007 crisis as “essentially a banking panic” but one that was not widely recognized as such:

The panic in 2007 was not observed by anyone other than those trading or otherwise involved in the capital markets because the repo market does not involve regular people, but

¹³² Zoltan Pozsar, “The Rise and Fall of the Shadow Banking System,” Moody’s Economy.com, Regional Financial Review, July 2008 at 23. See also Zoltan Pozsar, Tobias Adrian, Adam Ashcraft, Hayley Boesky, “Shadow Banking,” Federal Reserve Bank of New York Staff Report no. 458 (July 2010). See also Financial Crisis Inquiry Commission, “Shadow Banking and the Financial Crisis,” Preliminary Report, May 4, 2010, at 35 (“As the ABCP market came under stress, interbank lending markets also suffered. Market participants were concerned about the effects on banks from the credit and liquidity support that they had provided to ABCP programs. Interbank lending rates spiked in August 2007 as banks became less willing to lend to each other given the increased uncertainty. Banks built their own cash positions in case they themselves began to have difficulty raising funds in wholesale markets.”).

¹³³ On August 17, 2007, the Fed cut the discount rate by 50 basis points. The Fed also extended the term of discount window loans by banks to 30 days. By April 2008, the Board and FOMC had reduced the federal funds interest rate target by 300 basis points from 5¼ percent to 2¼ percent. See Federal Reserve Board Press Releases dated Aug. 10, 2007, Jan. 30, 2008 and March 18, 2008.

¹³⁴ Federal Reserve Board, Press Release dated Dec. 12, 2007.

¹³⁵ The peak amount outstanding at any one time was \$493 billion. See Federal Reserve Board, Usage of Federal Reserve Credit and Liquidity Facilities (Nov. 30, 2011).

firms and institutional investors. So, the panic in 2007 was not like the previous panics in American history . . . in that it was not a mass run on banks by individual depositors, but instead was a run by firms and institutional investors on financial firms. **The fact that the run was not observed by regulators, politicians, the media, or ordinary Americans has made the events particularly hard to understand. It has opened the door to spurious, superficial, and politically expedient “explanations” and demagoguery.**¹³⁶

Fed Chairman Bernanke has stated that regulators did not anticipate the run on ABCP because it was a run on the “shadow banking system” that occurred “outside” the traditional banking system:

[I]n this case, **the run occurred outside the traditional banking system, in the shadow banking system**—consisting of financial institutions other than regulated depository institutions, such as securitization vehicles, **money market funds**, and investment banks. . . .

Because the runs on the shadow banking system occurred in a historically unfamiliar context, outside the commercial banking system, both the private sector and the regulators insufficiently anticipated the risk that such runs might occur. . . . The problem in this case was not a lack of professional understanding of how runs come about or how central banks and other authorities should respond to them. Rather, the problem was the failure of both private- and public-sector actors to recognize the potential for runs in an institutional context quite different than the circumstances that had given rise to such events in the past. These failures in turn were partly the result of a regulatory structure that had not adapted adequately to the rise of shadow banking and that placed insufficient emphasis on the detection of systemic risks, as opposed to risks to individual institutions and markets.¹³⁷

Fed researchers have characterized events in the ABCP market as a bank-like “panic” and said that the run on ABCP in 2007 marked the beginning of the global

¹³⁶ Gary Gorton, “Questions and Answers About the Financial Crisis,” prepared for the U.S. Financial Crisis Inquiry Commission, Feb. 20, 2010, at 2.

¹³⁷ Ben S. Bernanke, Chairman, Federal Reserve Board, speech before a conference co-sponsored by the Center for Economic Policy Studies and the Bendheim Center for Finance, Sept. 24, 2010.

financial crisis that exploded in 2008.¹³⁸ These researchers have concluded that the ABCP market “may be inherently unstable and a source of systemic risk”:

The \$350 billion contraction in the asset-backed commercial paper (ABCP) market in the last five months of 2007 played a central role in transforming concerns about the credit quality of mortgage-related assets into a global financial crisis. . . . While it has been suggested that commercial paper programs, like commercial banks, may be prone to runs, we are the first to conduct a comprehensive empirical analysis of runs in the ABCP market using a rich and novel issue-level data set for all ABCP programs in the U.S. market. . . . **We find evidence of extensive runs: more than 100 programs (one-third of all ABCP programs) were in a run within weeks** of the onset of the turmoil and the odds of subsequently leaving the run state were very low. We interpret this finding as an indication that **the ABCP market was subject to a bank-like “panic.”** We also find that while runs were linked to credit and liquidity exposures of individual programs, runs were also related importantly to non-program specific variables in the first several weeks of the turmoil, indicating that runs were relatively indiscriminate during the early part of the panic. **Thus the ABCP market may be inherently unstable and a source of systemic risk.**¹³⁹

Notwithstanding the liquidity afforded to bank-sponsored ABCP by the TAF in 2007, instability in the ABCP market led to turmoil in the broader financial markets. The failure of Bear Stearns in March of 2008 was due largely to its inability to fund itself with repo using ABCP as collateral, as was the later failure of Lehman Brothers in September of 2008.¹⁴⁰ Instability in the bank ABCP market ultimately engulfed the

¹³⁸ Covitz, Liang, and Suarez, “The Evolution of a Financial Crisis: Panic in the Asset-Backed Commercial Paper Market,” August 24, 2009, available at papers.ssrn.com. The authors are economists at the Federal Reserve Board. See also Tobias Adrian, Karin Kimbrough, and Dina Marchioni, “The Federal Reserve’s Commercial Paper Funding Facility,” Federal Reserve Bank of New York Economic Policy Review, May 2011, at 27 (“the initial decline of outstanding ABCP is often used to date the beginning of the first wave of the 2007-2009 financial crisis.”).

¹³⁹ Covitz, Liang, and Suarez, *supra*.

¹⁴⁰ See Final Report of the National Commission on the Causes of the Financial and Economic Crisis in the United States at 251. Demands for additional collateral by a large clearing bank—JP Morgan—also made it difficult for these investment banks to fund

entire financial system, both domestically and globally.¹⁴¹ The market for ABCP imploded¹⁴² and short-term credit markets seized up as investors fled to Treasury bills and MMFs that invested in Treasuries.

The Financial Stability Oversight Council has described the vulnerability of banks to their own ABCP:

These entities also became a **source of vulnerability to the commercial banking system**. For example, banks and other financial institutions implicitly and explicitly supported a large volume of short-term wholesale funding instruments, including ABCP conduits and a variety of other short-term collateralized debt []. Before recent accounting reforms [], assets underlying these funding arrangements were generally off-balance sheet. This kind of accounting allowed for favorable capital treatment, bolstered equity returns of the sponsoring institution, and reduced perceptions of the risk associated with these arrangements. However, investors' [MMFs'] concerns regarding the quality of ABCP collateral, the viability of financial guarantors, and the ability of financial institutions to provide the promised liquidity support prompted a sharp contraction in demand for these instruments beginning in mid-2007. **Banks and other financial institutions purchased the underlying assets out of implicit or explicit obligation, placing significant strain on their funding and capital positions.**¹⁴³

themselves in the repo market. FCIC Report at 335. See also Testimony of Ben Bernanke before the Financial Crisis Inquiry Commission, Transcript dated Nov. 17, 2009 (“[T]he haircuts went up and you got into a vicious cycle which led to the Bear Stearns collapse and was important in the Lehman collapse as well.”).

¹⁴¹ See Viral Acharya and Philipp Schnabl, “Do Global Banks Spread Global Imbalances? The Case of Asset-Backed Commercial Paper During the Financial Crisis of 2007–09,” Paper presented at the 10th Jacques Polak Annual Research Conference Hosted by the International Monetary Fund, Nov. 5–6, 2009.

¹⁴² From its height of approximately \$1.25 trillion in early 2007, outstanding ABCP dropped by approximately \$400 billion by the end of 2007. Between August 2007 and August 2008, the amount of ABCP outstanding dropped by 33 percent. Marcin Kacperczyk and Schnabl at 38. Only three percent of ABCP actually defaulted, however. Most of the credit losses were absorbed by the sponsoring banks. *Id.*

¹⁴³ Financial Stability Oversight Council, 2011 Annual Report at 71.

The run on ABCP in 2007 created stress for some MMFs, but on the whole MMFs experienced only small outflows. There was no run on MMFs during the 2007 crisis, as reported by a Fed staff study:

[D]espite the exposures of many MMFs to troubled ABCP, **MMF investors responded with only a modest pullback from prime MMFs** in August 2007.... **prime MMFs**, which mainly invest in private debt instruments such as ABCP, **saw only very small net outflows** (about \$14 billion, or 0.8 percent of assets) in the three weeks ending August 29, 2007.¹⁴⁴

A reasonable conclusion is that the source of instability that led to the global financial crisis in 2008 was not MMFs but the system of ABCP and similar securitized funding vehicles—the real “shadow banks”—created by banks to finance off-balance sheet mortgages and other assets that proved risky and vulnerable to runs by MMFs and other risk-averse investors. What started the financial crisis was not a run *on* MMFs but a run *by* MMFs and other risk-averse investors on bank-sponsored ABCP.¹⁴⁵

¹⁴⁴ Patrick E. McCabe, Senior Economist, Federal Reserve Board, “The Cross Section of Money Market Fund Risks and Financial Crises,” Finance and Economics Discussion Series 2010-51 (2010) at 8. The paper notes that a number of MMF sponsors, including many bank sponsors, supported their MMFs by purchasing distressed ABCP from them and “sponsors’ actions evidently allayed investors’ concerns.”

¹⁴⁵ The Fed has long been aware that the commercial paper market is vulnerable to “credit crunches.” See Mark Carey, Stephen Prowse, John Rea, and Gregory Udell, Federal Reserve Board staff, “The Economics of the Private Placement Market,” Dec. 1993 at 63 (“The market for privately placed debt is served by lenders that are financial intermediaries. As such, the market is vulnerable to breakdowns, which occur when those who provide funds to the financial intermediaries are no longer willing to do so or when intermediaries become sensitive to the threat of such a withdrawal. This mechanism appears to be the main one behind the recent credit crunch for below-investment-grade borrowers.”). See also “The Financial Collapse of the Penn Central Company,” Staff Report of the Securities and Exchange Commission to the Special Subcommittee on Investigations, Aug. 1972. (“The collapse of the Penn Central is the single largest bankruptcy in our nation’s history. The ramifications of that bankruptcy extend far beyond those unfortunate enough to have been stockholders. For them, as for those whose pensions were dependent upon investments in Penn Central, the bankruptcy was a major tragedy. In addition to these investors and pensioners, however, the bankruptcy had a major impact upon our national economy. The run on commercial paper caused by the Penn Central collapse could have created a serious

C. Fed Liquidity Programs Were Designed Principally to Protect Banks With ABCP Exposure, Not MMFs

Following Lehman's bankruptcy and the ensuing panic in September of 2008, the commercial paper market dried up as a source of short-term funding not only for ABCP but for banking organizations that use commercial paper to fund their operations and for some nonfinancial companies that issue commercial paper to finance their payrolls, inventory, and other operating expenses. To unfreeze the market, the Fed instituted additional liquidity facilities specifically designed to pump liquidity into the commercial paper market.

One of the facilities allowed banks, using non-recourse loans from the Fed, to purchase ABCP from their own affiliated MMFs (as well as those of non-bank affiliated MMFs) and then sell the assets to the Fed. This facility, the Asset-Backed Commercial Paper Money Market Fund Liquidity Facility ("AMLF") provided \$217 billion in aggregate liquidity.¹⁴⁶ More than half of the largest users of this facility were MMFs affiliated with banks.¹⁴⁷ The Fed exempted such transactions from section 23A of the Federal Reserve Act,¹⁴⁸ and the Fed and other banking regulators lowered the risk-weighting on bank purchases of such ABCP to zero.¹⁴⁹

liquidity crisis for our nation's businesses except for the timely action of the Federal Reserve Board.").

¹⁴⁶ See Government Accountability Office, Federal Reserve System: Opportunities Exist to Strengthen Policies and Processes for Managing Emergency Assistance, GAO-11-696, July 2011, at 158. The facility was announced on September 19, 2008, and was closed on February 1, 2010. All loans made under the facility were repaid in full, with interest.

¹⁴⁷ These large bank-affiliated funds accounted for at least approximately 50 percent of the aggregate amount outstanding under the program. MMFs affiliated with investment banks that became bank holding companies during the crisis accounted for an additional 12 percent. The Reserve Funds accounted for 9 percent. Government Accountability Office, Federal Reserve System: Opportunities Exist to Strengthen Policies and Processes for Managing Emergency Assistance, GAO-11-696, July 2011, at 159.

¹⁴⁸ Board Press Release dated Sept. 19, 2008. See also Federal Reserve Board letters dated Oct. 6, 2008 and Dec. 1, 2008 to unidentified banks. The Board stated that the exemption was necessary to enable the bank-affiliated MMFs "to meet redemption requests without having to sell assets into the currently fragile and illiquid money markets." The letters did not mention that the exemption would enable banks to effectively avoid their legal obligations to back their ABCP conduits.

¹⁴⁹ See OCC Press Release NR 2008-110 (Sept. 19, 2008).

A second facility, the Commercial Paper Funding Facility (“CPFF”), purchased commercial paper directly from issuers, including ABCP and commercial paper issued by banking organizations to fund their operations. It provided aggregate liquidity of \$739 billion.¹⁵⁰ The CPFF benefited banks, not MMFs, and was more than three times as large as the AMLF.¹⁵¹ Indeed, it was larger than the amount allocated under the Troubled Asset Relief Program (“TARP”) enacted by Congress.¹⁵² Moreover, the CPFF purchased both secured and unsecured commercial paper whereas the AMLF took only highly rated ABCP from MMF portfolios.

A third facility, the Money Market Investor Funding Facility (“MMIFF”), authorized the Federal Reserve Bank of New York to provide direct funding to MMFs through an industry-supported private-sector initiative to finance the purchase of eligible assets from eligible investors. This program never was used.

These programs have been characterized by the Fed and other banking regulators as designed to protect MMFs and their shareholders. The OCC stated that the purpose of the AMLF program was “to reduce liquidity and other strains being

¹⁵⁰ Government Accountability Office, Federal Reserve System: Opportunities Exist to Strengthen Policies and Processes for Managing Emergency Assistance, GAO-11-696, July 2011, at 196. Of the total \$739 billion in commercial paper purchased, \$342 billion was ABCP. See also Tobias Adrian et al., “The Federal Reserve’s Commercial Paper Funding Facility,” Federal Reserve Bank of New York Economic Policy Review, May 2011.

¹⁵¹ Over 90 percent of the loans under this program went to banking organizations and other financial institutions. Approximately 6 percent went to automobile finance companies. Government Accountability Office, Federal Reserve System: Opportunities Exist to Strengthen Policies and Processes for Managing Emergency Assistance, GAO-11-696, July 2011, at 196.

¹⁵² One study has suggested that the CPFF combined with TARP represented a double bailout of the banking industry. See Linus Wilson and Yan Wendy Wu, “Does receiving TARP funds make it easier to roll your commercial paper onto the Fed?” available at SSRN.com (“[P]articipants in the [CPFF] program were significantly more likely to pose systemic risks, to be financial issuers, and to participate in the Troubled Asset Relief Program (TARP) bailout. It seems that there is a positive correlation between federal bailouts. Firms that are bailed out once (by either TARP or CPFF) are significantly more likely to be bailed out by the other government program. Moreover, we find that the Federal Reserve did fall victim to adverse selection with the TARP recipients which participated in the CPFF. After the Federal Reserve started buying commercial paper beginning in late 2008, those twice bailed out firms reported significantly lower capital and profitability ratios than other TARP recipient issuers of commercial paper which did not participate in the CPFF.”).

experienced by money market mutual funds.”¹⁵³ Similarly, former Fed Chairman Volcker stated, “massive Federal Reserve purchases of commercial paper were driven by the need to protect MMMFs.”¹⁵⁴

In fact, the Fed’s liquidity programs were designed to prop up the bank commercial paper market and relieve banks of the obligations they had incurred to support their own ABCP conduits. In particular, the AMLF helped banks avoid massive exposure to their ABCP conduits while the CPFF enabled banking organizations to sell their own commercial paper and ABCP directly to the Fed as a means of liquidity.¹⁵⁵

These programs enabled MMFs, which had come under pressure from redeeming shareholders,¹⁵⁶ to continue providing liquidity to the commercial paper market by rolling over ABCP and other financial commercial paper.¹⁵⁷ But the

¹⁵³ In promulgating a rule to lower bank capital requirements to facilitate their participation in the AMLF program, the OCC issued a press release stating: “The interim final rule we approved today will help to reduce liquidity pressures faced by many U.S. money market funds during this credit crisis,” said Comptroller of the Currency John C. Dugan. “We believe use of this new facility is fully consistent with safe and sound banking practices, and we are encouraging national banks to act as intermediaries and assist the Federal Reserve System in its implementation of this new lending facility.” OCC Press Release 2008-110 (Sept. 19, 2008). Office of the Comptroller of the Currency, Interim Rule, “Risk-Based Capital Guidelines—Money Market Mutual Funds,” Docket ID OCC-2008-0015.

¹⁵⁴ Letter dated Feb. 11, 2011, from Paul A. Volcker to the Securities and Exchange Commission in response to the SEC’s request for comment on the President’s Working Group Report on Money Market Funds.

¹⁵⁵ As discussed elsewhere in this paper, banking organizations and other financial institutions were the primary issuers of commercial paper, not nonfinancial corporations.

¹⁵⁶ Investors withdrew approximately \$117 billion from prime MMFs in the week immediately following Lehman’s bankruptcy.

¹⁵⁷ See Burcu Duygan-Bump, Patrick M. Parkinson, Eric S. Rosengren, Gustavo A. Suarez, and Paul S. Willen, “How Effective Were the Federal Reserve Emergency Liquidity Facilities? Evidence from the Asset-Backed Commercial Paper Money Market Mutual Fund Liquidity Facility” Federal Reserve Bank of Boston, Working Paper No. QAU10-3, April 29, 2010 (“We also find that the facility very likely helped money funds to continue investing in ABCP and commercial paper, instead of turning entirely into safe assets, such as Treasury securities, which would have further added to the already severe credit market pressures that followed the failure of Lehman Brothers.”). At the end of 2007, MMFs held about \$285 billion of the nearly \$840 billion in ABCP outstanding. Federal Reserve Board, Report

underlying purpose of the programs was not to protect MMFs or their shareholders. Rather, their purpose was to save the largest banks, which were exposed to massive liquidity claims on their ABCP conduits, and to restore the flow of credit to the economy.

The Fed did not lend directly to MMFs during the crisis. MMFs never have accessed Fed liquidity directly.¹⁵⁸ The run on MMFs was staunched within three days after it began by the Treasury's announcement that it would guarantee MMF shares.¹⁵⁹ The Fed's liquidity facilities enabled MMFs to liquidate their ABCP holdings without exercising liquidity claims on bank ABCP sponsors.

The Fed's liquidity facilities were designed specifically to inject liquidity into the commercial paper market and to support the bank-affiliated ABCP conduits whose paper MMFs and their shareholders refused to purchase as a matter of prudence. Without such liquidity facilities—and the availability of MMFs to resume purchases of commercial paper—the largest banks, already under stress, would have been forced to support the commercial paper market themselves, which they could not do.¹⁶⁰ The stresses on banks and the short-term money markets likely would have led to an even more catastrophic collapse of the banking system than actually occurred.

Former Fed Chairman Alan Greenspan has commented on the exigencies that required the Fed to act quickly to support the commercial paper market:

The evaporation of the global supply of short term credits within hours or days of the Lehman failure is, I believe,

Pursuant to Section 129 of the Emergency Economic Stabilization Act of 2008: Asset-Backed Commercial Paper Money Market Mutual Fund Liquidity Facility at 1.

¹⁵⁸ The Federal Reserve Bank of Boston facilitated ABCP purchases from MMFs through MMFs' custodian banks.

¹⁵⁹ See Marcin Kacperczyk and Philipp Schnabl, "When Safe Proved Risky: Commercial Paper During the Financial Crisis of 2007-2008," *Journal of Economic Perspectives*, Vol. 24, No. 1 (Winter 2010) at 30.

¹⁶⁰ Report of the President's Working Group on Financial Markets: Money Market Fund Reform Options, Oct. 2010, at 12 ("During September 2008, MMFs reduced their holdings of commercial paper by about \$170 billion (25 percent). . . . CP issuers were required to make significant draws on their backup lines of credit, placing additional pressure on the balance sheets of commercial banks.").

without historical precedent. A run on money market mutual funds, heretofore perceived to be close to riskless, was underway within hours of the Lehman announcement of default. **The Federal Reserve had to move quickly to support the failing commercial paper market.**¹⁶¹

Fed Chairman Bernanke has acknowledged that the Fed's chief concern regarding the run on MMFs was "severe stresses in the commercial paper market":

Lehman's default on its commercial paper caused a prominent money market mutual fund to "break the buck" and suspend withdrawals, which in turn ignited a general run on prime money market mutual funds, with resulting **severe stresses in the commercial paper market.**¹⁶²

Chairman Bernanke has described how banks were pressured to fund back-up lines of credit for their commercial paper when MMFs reduced their ABCP holdings:

One money market fund's losses forced it to "break the buck"—that is, the value of its assets fell below par—an event that triggered extensive withdrawals from a number of money market funds. Those funds responded to the surge in redemptions by attempting to reduce their holdings of commercial paper and large certificates of deposit issued by banks. **Some firms that could not roll over maturing commercial paper drew on back-up lines of credit with banks just as the banks were finding it even more difficult to raise cash in the money markets.**¹⁶³

Mr. Bernanke has described the Fed's emergency facilities as "programs to backstop MMFs" and "stabilize" MMFs, while acknowledging that the programs' principal effect was to support the commercial paper market:

In some cases, as in our programs to backstop money market mutual funds, the purpose of the facility is to serve, once again

¹⁶¹ Alan Greenspan, "The Crisis," April 2010, available at www.brookings.edu/~media/Files/.../spring2010_greenspan.pdf.

¹⁶² Federal Reserve Chairman Ben S. Bernanke, American International Group, Testimony before the House Financial Services Committee, March 24, 2009.

¹⁶³ Federal Reserve Chairman Ben S. Bernanke, "Current Economic and Financial Conditions," Remarks before the National Association for Business Economics 50th Annual Meeting, Oct. 7, 2008.

in classic central bank fashion, as liquidity provider of last resort. Following a prominent fund's "breaking of the buck"—that is, a decline in its net asset value below par—in September, investors began to withdraw funds in large amounts from money market mutual funds that invest in private instruments such as commercial paper and certificates of deposit. Fund managers responded by liquidating assets and investing at only the shortest of maturities. As the pace of withdrawals increased, both the **stability of the money market mutual fund industry and the functioning of the commercial paper market were threatened**. The Federal Reserve responded with several programs, including a facility to finance bank purchases of high-quality asset-backed commercial paper from money market mutual funds. This facility effectively channeled liquidity to the funds, helping them to meet redemption demands without having to sell assets indiscriminately. Together with a Treasury program that provided partial insurance to investors in money market mutual funds, these efforts helped stanch the cash outflows from those funds and stabilize the industry.¹⁶⁴

* * * * Losses at a prominent money market mutual fund prompted investors, who had traditionally considered money market mutual funds to be virtually risk-free, to withdraw large amounts from such funds. **The resulting outflows threatened the stability of short-term funding markets, particularly the commercial paper market, upon which corporations rely heavily for their short-term borrowing needs.**¹⁶⁵

* * * * Losses at money market mutual funds led to large withdrawals by their investors, and those outflows undermined both the stability of short-term funding markets, particularly the commercial paper market, and confidence in wholesale bank funding markets.¹⁶⁶

¹⁶⁴ Federal Reserve Chairman Ben S. Bernanke, Remarks at the Stamp Lecture, London School of Economics, London, England, Jan. 13, 2009, "The Crisis and the Policy Response."

¹⁶⁵ Federal Reserve Chairman Ben S. Bernanke, Semiannual Monetary Policy Report to the Congress, Before the Senate Committee on Banking, Housing and Urban Affairs, Feb. 24, 2009.

¹⁶⁶ Federal Reserve Chairman Ben S. Bernanke, Current Economic and Financial Conditions and the Federal Budget, Testimony before the Senate Committee on the Budget, March 3, 2009.

As Chairman Bernanke has described but not explicitly acknowledged, the Fed needed MMFs to purchase commercial paper in order to prop up banks and other commercial paper issuers and to avoid runs on bank backup letters of credit supporting ABCP.¹⁶⁷ The Fed structured its liquidity facilities so that MMFs could provide liquidity to the commercial paper market. MMFs did not want to borrow from the Fed directly for this purpose so the Fed structured the AMLF to purchase ABCP from MMFs indirectly through banks.¹⁶⁸ MMFs performed this important liquidity role once the Fed's facilities were in place. With the help of MMFs, the Fed's facilities restored liquidity to the commercial paper market and thereby relieved banks of their legal obligation to support their own ABCP.

It is inaccurate and misleading to say that the Fed's liquidity programs were designed primarily to benefit MMFs and their shareholders. There can be little question that they were designed first and foremost to support the bank commercial paper market and bank sponsors that had massive exposure to maturing ABCP.¹⁶⁹

¹⁶⁷ Contrary to Chairman Bernanke's statement, however, Fed research shows that nonfinancial corporations do not rely heavily on the commercial paper market for their short-term funding needs. As noted elsewhere in this paper, the commercial paper market is dominated by banking organizations and other financial institutions.

¹⁶⁸ See Brian F. Madigan, Director, Division of Monetary Affairs, "Bagehot's Dictum in Practice: Formulating and Implementing Policies to Combat the Financial Crisis," delivered at the Federal Reserve Bank of Kansas City's Annual Economic Symposium, Jackson Hole, Wyoming, August 21, 2009 ("The unwillingness of money funds to borrow led the Federal Reserve to implement several facilities in support of money funds and money markets that did not involve direct lending to money funds.").

¹⁶⁹ A Federal Reserve staff report stated that the TALF in 2007 was "designed specifically to revitalize the ABS [asset-backed securities] market." Federal Reserve Bank of New York Staff Reports, "The Changing Nature of Financial Intermediation and the Financial Crisis of 2007-09," Tobias Adrian and Hyun Song Shin, Staff Report No. 439, March 2010, revised April 2010. The Fed's website describes AMLF as "intended to help restore liquidity to the ABCP markets and thereby to help money funds meet demands for redemption." AMLF, Frequently Asked Questions and Answers, available at Federal Reserve Board web site: <http://www.frbdiscountwindow.org/mmmf.cfm?hdrID=14#f1>.

D. Fed Officials Have Shifted Blame for Commercial Paper Instability from Banks to MMFs

The Fed has accused MMFs of destabilizing the commercial paper market and said that “losses” at MMFs undermined confidence in the wholesale funding market (i.e., the ABCP and repo markets).¹⁷⁰ This accusation seems unfair in light of the facts just described showing that the market instability was caused by a run on ABCP thought to contain toxic assets and the Fed’s unexpected decision to allow Lehman Brothers to fail, not anything inherently unstable in MMFs. Moreover, a large portion of the “losses” at MMFs—apart from those at the Reserve Primary Fund—occurred in bank-affiliated funds that had invested in ABCP.

Fed officials have complained that MMFs did not retain or roll over ABCP during the crisis and “hoarded” liquidity, thus creating systemic risk that led to a freezing of the credit markets. Fed Chairman Bernanke has stated:

Money market mutual funds proved particularly vulnerable to liquidity pressures. A large portion of the investments of these funds were in short-term wholesale funding instruments issued or guaranteed by commercial banks. When short-term wholesale funding markets came under stress, particularly in the period after the collapse of Lehman Brothers, money market mutual funds faced runs by their investors. Although actions by the Treasury and the Federal Reserve helped arrest these runs, the money market mutual funds responded by hoarding liquidity, thus constricting the availability of financing to financial and nonfinancial firms.¹⁷¹

A senior Fed official, in a published paper, similarly complained that MMFs withdrew from the commercial paper market during the financial crisis. He stated that

¹⁷⁰ Federal Reserve Chairman Ben S. Bernanke, Current Economic and Financial Conditions and the Federal Budget, Testimony before the Senate Committee on the Budget, March 3, 2009 (“Losses at money market mutual funds led to large withdrawals by their investors, and those outflows undermined both the stability of short-term funding markets, particularly the commercial paper market, and confidence in wholesale bank funding markets.”).

¹⁷¹ Federal Reserve Board Chairman Ben S. Bernanke, “Causes of the Recent Financial and Economic Crisis,” Testimony before the Financial Crisis Inquiry Commission, Sept. 2, 1010.

MMFs declined to borrow from the Fed at the onset of the crisis, choosing instead to “dump assets” and cease purchasing commercial paper in order to meet redemption requests from their shareholders.¹⁷² This official writes:

[R]epresentatives of the money fund industry advised the Federal Reserve that money funds would be unwilling to borrow, partly because investors would recognize that leverage would amplify the effects of any fund losses on remaining shareholders and intensify their incentive to run. Indeed, the Federal Reserve Board approved the establishment of a Direct Money Market Mutual Fund Lending Facility but left it on the shelf after being informed that money funds would be unwilling to use it.¹⁷³

Consequently, he says, “the commercial paper market nearly ground to a halt, preventing many businesses and investment vehicles [i.e., bank-sponsored SIVs and other ABCP] from rolling over their liabilities beyond very short terms and leaving them potentially unable to finance their operations.”

The president of the Federal Reserve Bank of Boston also has blamed MMFs for causing instability in the commercial paper market that necessitated Fed liquidity facilities:

The Federal Reserve Bank of Boston administered on behalf of the Federal Reserve System a lending facility that was designed to address the short-term liquidity needs of MMMFs and help stabilize **short-term credit markets that were disrupted by the rapid liquidation of investments by many MMMFs.**¹⁷⁴

¹⁷² Brian F. Madigan, former Director, Division of Monetary Affairs, at the Federal Reserve Bank of Kansas City’s Annual Economic Symposium, Jackson Hole, Wyoming, August 21, 2009, “Bagehot’s Dictum in Practice: Formulating and Implementing Policies to Combat the Financial Crisis.”

¹⁷³ *Id.*

¹⁷⁴ Eric S. Rosengren, President and CEO, Federal Reserve Bank of Boston, “Towards Greater Financial Stability in Short-Term Credit Markets,” Remarks at the Global Interdependence Center’s Conference on Capital Markets in the Post Crisis Environment, Sweden, Sept. 29, 2011.

The Reserve Bank president said that MMF investors and fund managers have the potential to cause “global liquidity problems” by reducing their holdings of short-term credit instruments:

[S]hort-term credit markets have become increasingly susceptible to rapid shifts in sentiment – shifts that can create global liquidity problems. **The structure of MMMFs, even with improvements that make them less at risk of runs, can still cause problems—for example if MMMFs move assets quickly out of certain segments of wholesale funding markets.** This could happen because of increased credit concerns on the part of either money-market investors or money market managers.¹⁷⁵

In a report to Congress concerning the AMLF, the Fed made no mention whatsoever of the underlying purpose of the facility as a bailout of large banks that effectively had guaranteed their ABCP conduits or of the fact that bank-affiliated MMFs held large amounts of ABCP.¹⁷⁶ Similarly, a Fed staff report on the AMLF painted an incomplete picture:

AMLF was created with a dual objective: increasing the liquidity of the asset-backed commercial paper (ABCP) market, and providing a means for money market mutual funds (MMMFs) to liquefy assets to meet the wave of redemptions that followed the failure of Lehman Brothers, thus preventing many money funds from “breaking the buck.”¹⁷⁷

The statement that many MMFs would have “broken a dollar” is possibly exaggerated to the extent that MMF losses would have been covered by bank backup letters of credit assuring repayment of maturing ABCP. It also is likely that more banks would have failed or been rescued by the Fed. The Fed staff report concludes,

¹⁷⁵ *Id.*

¹⁷⁶ Federal Reserve Board, Report Pursuant to Section 129 of the Emergency Economic Stabilization Act of 2008: Asset-Backed Commercial Paper Money Market Mutual Fund Liquidity Facility.

¹⁷⁷ Burcu Duygan-Bump, Patrick M. Parkinson, Eric S. Rosengren, Gustavo A. Suarez, and Paul S. Willen, “How Effective Were the Federal Reserve Emergency Liquidity Facilities? Evidence from the Asset-Backed Commercial Paper Money Market Mutual Fund Liquidity Facility,” Federal Reserve Bank of Boston, Working Paper No. QAU10-3, April 29, 2010 at 2.

gratuitously, that while the AMLF was successful, MMFs have an “inherent susceptibility” to runs and a pose systemic risk that needs to be addressed:

Although the AMLF and many of the Federal Reserve’s emergency liquidity interventions were instrumental in restoring stability in the short term, it is important for the long term to address the financial system’s weaknesses as exposed by the crisis. For example, **the events of September 2008 highlighted the inherent susceptibility of MMMFs to runs.** This susceptibility arises due to a number of features of these funds, including maturity mismatch between their assets and liabilities, a net asset value (NAV) rounded to a \$1 per share, portfolios with credit and interest-rate risk, and discretionary sponsor support instead of formal capital buffers or insurance. **Runs on money funds may threaten the broader economy,** as firms and industries depend on money markets for funding. Given the temporary nature of the AMLF, **there is a need to consider ways to reduce the systemic risk posed by money market funds.** In 2010, the SEC changed rule 2a-7 that governs money funds, imposing more stringent requirements on liquidity, credit risk, weighted average maturities, and disclosure. However many questions remain open, such as whether or not to keep a fixed NAV, whether to have insurance or some form of capital buffers, or whether there is a need for a permanent liquidity facility.¹⁷⁸

The Fed’s narrative on MMFs is reflected in the report of the President’s Working Group on MMFs, of which the Fed is a member:

Amid broad concerns about the safety of MMFs and other financial institutions, investors rapidly redeemed MMF shares, and the cash needs of **MMFs exacerbated strains in short-term funding markets. These strains, in turn, threatened the broader economy,** as firms and institutions dependent upon those markets for short-term financing found credit increasingly difficult to obtain. Forceful government action was taken to stop the run, restore investor confidence, and prevent the development of an even more severe recession.

¹⁷⁸ *Id.* at 23.

Even so, short-term funding markets remained disrupted for some time.¹⁷⁹

* * * *

Many MMF advisers limited new portfolio investments to cash, U.S. Treasury securities, and overnight instruments, and avoided term commercial paper, certificates of deposit, and other short-term credit instruments. During September 2008, **MMFs reduced their holdings of commercial paper** by about \$170 billion (25 percent). As market participants hoarded cash and refused to lend to one another on more than an overnight basis, interest rates spiked and short-term credit markets froze. **Commercial paper issuers were required to make significant draws on their backup lines of credit, placing additional pressure on the balance sheets of commercial banks.**¹⁸⁰

These statements reinforce the view that the Fed’s principal concern in proposing MMF structural changes is not to protect MMFs and their shareholders but rather to bolster the commercial paper market and protect bank issuers and sponsors of ABCP. Indeed, a cynical observer might question whether the Fed is seeking to punish MMFs for “disrupting” the commercial paper market by their risk-averse behavior and frustrating the Fed’s efforts to stabilize the market by initially declining to participate in the Fed’s ABCP liquidity facilities.

¹⁷⁹ Report of the President’s Working Group on Money Market Fund Reform Options, Oct. 2010, at 4.

¹⁸⁰ *Id.* at 12. (“The run quickly spread to other prime MMFs, which held sizable amounts of financial sector debt that investors feared might decline rapidly in value. During the week of September 15, 2008, investors withdrew approximately \$310 billion (15 percent of assets) from prime MMFs, with the heaviest redemptions coming from institutional funds. To meet these redemption requests, MMFs depleted their cash positions and sought to sell portfolio securities into already illiquid markets. These efforts caused further declines in the prices of short-term instruments and put pressure on per-share values of fund portfolios, threatening MMFs’ stable NAVs. Nonetheless, only one MMF—the Reserve Primary Fund—broke the buck, because many MMF sponsors provided substantial financial support to prevent capital losses in their funds.”).

E. MMFs and Their Shareholders Acted Prudently in Reducing Their Commercial Paper Holdings

Contrary to Fed accusations that MMFs “hoarded” liquidity and acted irresponsibly in refusing to roll over ABCP, and thereby exacerbated the financial crisis, MMFs and their shareholders acted prudently in disposing of their ABCP holdings.

It is important to understand that, unlike banks, MMFs are pass-through vehicles for investors. They operate without discount window access or other major external sources of liquidity. They are obligated to redeem shares upon demand, which they can do because of the near perfect match between their assets and liabilities.¹⁸¹ They must sell assets to meet shareholder redemptions. MMFs manage their portfolios in response to shareholder redemption activity. Thus, MMF shareholders largely determine when a MMF will sell assets or refuse to roll over its commercial paper holdings.

Many MMF shareholders are trustees of large pension funds and charitable foundations, bank trust departments, corporate treasurers, and controllers for state and local governments. They are responsible for billions of dollars crucial to the well-being of millions of American citizens. These investors are subject to fiduciary duties that require them to seek a safe haven for their cash during times of financial instability, such as occurred in 2007 and 2008. MMF shareholders also include large numbers of individuals who safekeep their 401(k) plan assets and other retirement funds in MMFs.

Due to the turmoil in the commercial paper market in 2007, many MMF investors prudently transferred their funds out of MMFs that invested in commercial

¹⁸¹ Among other things, MMFs limit their concentrations to counterparties in order to manage their credit exposure and maintain diversification in accordance with SEC regulations. MMFs also may reduce the maturity of assets they purchase.

paper (so-called “prime funds”) and into MMFs that invest mainly in Treasury bills.¹⁸² These investors acted in their self-interest or as their fiduciary duty dictated.

The demand by MMF investors for greater safety required MMFs to liquidate their holdings of commercial paper and increase their holdings of Treasury bills.¹⁸³ MMFs had no ability to prevent investors from redeeming their shares in prime funds and were required to pay them the value of their shares, which remained at \$1.00 per share. Collectively, their action created pressure on the commercial paper market and bank guarantors of ABCP.

The pull-back from commercial paper and other short-term funding (i.e., repurchase agreements or “repo”) by MMFs and other investors beginning in 2007 has been referred to by Professor Gorton and others as a “run”.¹⁸⁴ This “run” led to the failure of Bear Stearns and ultimately Lehman Brothers, both major commercial paper issuers, and likely would have brought down other financial institutions in the commercial paper market had not the Fed intervened with emergency liquidity.¹⁸⁵

This run was not a run on MMFs but a run on the commercial paper market. Moreover, it was not a run *on* MMFs but a run *by* MMFs. It also involved a run by investors *to* MMFs—a flight to safety by investors acting rationally and prudently to safeguard their assets. It cannot fairly be said that MMFs or their shareholders acted irresponsibly or were at fault for destabilizing the financial system by virtue of their prudent action. Their action was a manifestation of market discipline—one of the key

¹⁸² During the week of September 15, 2008, investors redeemed approximately \$300 billion from prime MMFs about \$300 billion. Investment Company Institute, Report of the Money Market Working Group, March 17, 2009, at 62.

¹⁸³ As discussed in an appendix hereto, MMFs have further reduced their investments in ABCP in response to shareholder demand for safety.

¹⁸⁴ See Gary B. Gorton, “Slapped in the Face by the Invisible Hand: Banking and the Panic of 2007.”

¹⁸⁵ See Final Report of the National Commission on the Causes of the Financial and Economic Crisis in the United States at 280 (“Over the fall, Bear’s repo lenders—mostly money market funds—increasingly required Bear to post more collateral and pay higher interest rates. Then, in just one week in March 2008, a run by these lenders, hedge fund customers, and derivatives counterparties led to Bear’s having to be taken over in a government-backed rescue.”).

elements or “pillars” of the Basel II capital framework that was in the process of being implemented by the banking regulators to enhance banking stability.¹⁸⁶

F. Unlike Banks, MMFs Weathered the ABCP Crisis

Although MMFs experienced heavier than usual redemptions during the ABCP crisis in 2007 and 2008, they suffered no serious detriment—no MMF “broke a dollar” other than the one instance that was a direct result of the Fed’s policy reversal in failing to prevent Lehman’s bankruptcy. Indeed, MMF assets increased by \$1.2 trillion.¹⁸⁷

Major banks, on the other hand, were destabilized by their own ABCP, much of which ended up back on their books and was the focus of the Fed’s extraordinary measures in both 2007 and 2008. Researchers, including Fed economists, have concluded that this destabilization occurred because banks securitized their assets in ABCP conduits without distributing the risk, contrary to the purpose of securitization. Bank ABCP conduits were used instead for regulatory arbitrage purposes (i.e., to leverage themselves by reducing their capital requirements) and were structured by banks such that the risks came back on their balance sheets during the crisis:

Our main conclusion in this paper is that, somewhat surprisingly, this crisis in the ABCP market did not result (for the most part) in losses being transferred to outside investors [i.e., MMFs] in ABCP. Instead, **the crisis had a profoundly negative effect on commercial banks because banks had—in large part—insured outside investors in ABCP by providing explicit guarantees to conduits**, which required

¹⁸⁶ In 2006, the Basel Committee on Banking Supervision issued a comprehensive version of Basel II based on three key elements—capital requirements, supervision, and market discipline—referred to as “pillars.” Pillar 3 (market discipline) relies on market discipline to motivate prudent management. See Basel Committee on Banking Supervision, *International Convergence of Capital Measurement and Capital Standards: A Revised Framework (Comprehensive Version)*. The Basel II documents are available at www.bis.org.

¹⁸⁷ The increase occurred from June 2007 to January 2009. Source: Investment Company Institute. MMF assets have decreased subsequently, in large part because Congress authorized the FDIC to extend unlimited deposit insurance to noninterest bearing checking accounts at banks. Such authority ends on December 31, 2012, after which deposits are expected to flow out of banks back into MMFs.

banks to pay off maturing ABCP at par. Effectively, **banks had used conduits to securitize assets without transferring the risks to outside investors**, contrary to the common understanding of securitization as a method for risk transfer. We argue that **banks instead used conduits for regulatory arbitrage**.¹⁸⁸

* * * * In this paper, we analyze ABCP conduits and show how the structure of risk-sharing in these conduits implies recourse back to bank balance sheets. We find that outside investors [MMFs] who purchased ABCP suffered small losses even when collateral backing the conduits deteriorated in quality, supporting our main finding that conduits were a form of securitization without risk transfer. We also find that the stock price deterioration of banks at the start of the financial crisis was linked to the extent of their conduit exposure relative to equity capital. Once the crisis broke out, ABCP spreads rose and issuance fell, and more so where guarantees were weaker and sponsoring banks were weaker.

Our analysis makes it clear that from an economic standpoint conduits are “less regulated banks” that operate in the shadow banking world, but with recourse to fully regulated entities, mainly commercial banks, that have access to government safety net. Our results also indicate that when these “less regulated banks” do not have such recourse (extendible notes and SIVs guarantees), they struggle to survive a systemic crisis. While some may interpret this finding to justify the accordance of government safety net to all those parts of the shadow banking world that perform maturity mismatch like banks, the bigger lesson in our view is that **banks have incentives to get around regulatory capital requirements in order to invest in aggregate risks in a leveraged manner**.¹⁸⁹

¹⁸⁸ Viral V. Acharya, Philipp Schnabl, and Gustavo Suarez (senior economist, Federal Reserve Board), “Securitization Without Risk Transfer,” Aug. 8, 2011 at 3-4, available at SSRN.com. The findings of this paper are discussed further *infra* in sections IV.H. and VIII.C.

¹⁸⁹ *Id.* at 30.

IV. THE FED’S MMF PROPOSALS ARE UNNECESSARY AND WOULD EXACERBATE SYSTEMIC RISK

A. **The Fed Has Advanced Several Options That Threaten MMFs**

As noted, specific restructuring concepts for MMFs have been advanced by Fed officials, both independently and in conjunction with other financial regulators. These concepts were outlined by the President’s Working Group on Financial Markets, of which the Fed is a member, and include the following:

- Eliminating the \$1.00 NAV in favor of a floating NAV;
- A private emergency liquidity facility for MMFs;
- A requirement that MMFs redeem shares in kind during a crisis;
- Insurance guaranteeing MMF shares so that shareholders won’t redeem their shares in a crisis;
- A two-tier system of MMFs with enhanced protections for MMFs with a \$1.00 NAV;
- A two-tier system of MMFs reserved for retail investors; and
- Treating MMFs with a \$1.00 NAV as special purpose banks.¹⁹⁰

The Financial Stability Oversight Council (“FSOC”), of which the Fed also is a member, has recommended that the SEC consider eliminating the \$1.00 NAV and imposing a capital buffer requirement and restrictions on fund redemptions:

To increase stability, market discipline, and investor confidence in the MMF market by improving the market’s functioning and resilience, the Council should examine, and the SEC should continue to pursue, further reform alternatives to reduce MMFs’ susceptibility to runs, with a particular emphasis on (1) a mandatory floating net asset value (NAV), (2) capital buffers to absorb fund losses to sustain a stable NAV, and (3) deterrents to redemption, paired with capital buffers, to mitigate investor runs.¹⁹¹

¹⁹⁰ President’s Working Group on Financial Markets, Money Market Reform Options, Oct. 2010.

¹⁹¹ Financial Stability Oversight Council, 2011 Annual Report at 13. It is ironic that FSOC would recommend these changes to “increase market discipline” inasmuch as market discipline—i.e., investors acting to avoid risk—is what the Fed has said caused the run on MMFs.

Industry experts have submitted comments to the SEC giving detailed reasons why the proposals suggested by FSOC would seriously impair MMFs.¹⁹² The President’s Working Group itself recognized that inappropriate regulatory changes could have counterproductive effects on the short-term credit markets as well as MMFs:

Notwithstanding the need for reform, the significance of MMFs in the U.S. financial system suggests that changes must be considered carefully. Tighter restrictions on MMFs might, for example, lead to a reduction in the supply of short-term credit, a shift in assets to substitute investment vehicles that are subject to less regulation than MMFs, and significant impairment of an important cash-management tool for investors. . . . Attempting to prevent any fund from *ever* breaking the buck would be an impractical goal that might lead, for example, to draconian and—from a broad economic perspective—counterproductive measures, such as outright prohibitions on purchases of private debt instruments and securities with maturities of more than one day.¹⁹³

Of the proposals that have been discussed, the idea of requiring MMFs to maintain a capital buffer appears to be moving forward.¹⁹⁴ This proposal would be accompanied by restrictions on shareholder redemptions. Under the proposal, MMFs and their shareholders would be required to absorb future losses from their holdings of commercial paper or other assets that incur losses during times of market stress. Shareholders would not have immediate access to all of their money in a crisis. The

¹⁹² See MMF industry letters submitted in response to Securities and Exchange Commission Release No. IC-29497; File No. 4-619, available at <http://www.sec.gov/comments/4-619/4-619.shtml>.

¹⁹³ Report of the President’s Working Group on Financial Markets on Money Market Fund Reform Options, Oct. 2010, at 13-14.

¹⁹⁴ See Remarks of SEC Chairman Mary Schapiro at the Annual Meeting of SIFMA, Nov. 7, 2011 (“We are focused in particular on a capital buffer option to serve as a cushion for money market funds in times of emergency and floating NAVs, which would eliminate the expectation of stability that accompanies the \$1.00 stable NAV. . . . Much of the SEC staff’s energy, working jointly with staff from other FSOC member agencies, is focused on developing a meaningful capital buffer reform proposal. In addition, a capital buffer potentially could be combined with redemption restrictions in order to address incentives to run that may not be curtailed by a capital buffer alone.”).

capital buffer proposal effectively would convert MMFs into lenders of last resort for the commercial paper market. MMF shareholders would find a portion of their assets frozen to prevent a “flight to safety.”

B. A Capital Buffer Would Convert MMFs Into Lenders of Last Resort for the Commercial Paper Market, a Role More Suited to Banks

Statements by Fed officials reflect concern not about risky behavior by MMFs and their shareholders but rather about their risk-averse behavior. Fed statements suggest that the Fed wants MMFs, which contain the life savings of millions of Americans, to increase their risk exposure to commercial paper and hoard assets that become potentially toxic during times of stress. Fed statements suggest that the Fed wants MMFs to alter their fundamental purpose as a safe haven for liquid assets and become insurers of the bank commercial paper market, both domestically and in foreign markets.¹⁹⁵

A more extreme view is that the Fed wants to eliminate MMFs from the financial system altogether in order to protect banks from competition from MMFs—a view that former Fed Chairman Volcker has unabashedly advanced.¹⁹⁶

The capital buffer proposal would impose a tax on MMFs and their shareholders to maintain a capital fund to absorb losses from commercial paper. Redemption restrictions would prevent them from avoiding such losses. In the case of losses on highly rated commercial paper held by a MMF, for example, it has been suggested that the capital buffer would be tapped only after the 100 percent liquidity layer provided by the bank sponsor is exhausted, along with any backup credit support

¹⁹⁵ For example, former Fed Chairman Volcker has criticized MMFs for reducing their holdings of European bank commercial paper: “Recently, in an effort to maintain some earnings, many of those funds invested heavily in European banks. Now, without the backstop official liquidity, they are actively withdrawing those funds adding to the strains on European banking stability. “Three Years Later: Unfinished Business in Financial Reform,” Paul A. Volcker, The William Taylor Memorial Lecture, Sept. 12, 2011. This statement suggests that the former Fed chairman believes MMFs should support European banks notwithstanding concerns regarding the stability of those banks.

¹⁹⁶ See excerpts of public statements by Paul A. Volcker in the Appendix.

provided by the sponsor. In other words, the capital buffer likely would be employed only in cases of extreme panic such as occurred in 2007 and 2008. MMFs and their shareholders then effectively would assume the role of lender of last resort to the commercial paper market—a role that Congress has assigned to the Fed.

In fact, the capital buffer concept expects MMFs to do even more than act as a lender of last resort—unlike the Fed, MMFs would absorb actual losses rather than merely provide liquidity.¹⁹⁷

MMFs are not suited to the role of lender of last resort. Nor could they realistically be expected to perform such a role without access to government liquidity facilities. MMFs are not federally insured. Nor are they eligible to borrow at the discount window. In the event of a systemic panic, it is unlikely that a capital buffer would be sufficient to avert a flight by MMF shareholders to government securities or whatever other instruments may be deemed safer than MMFs, even with redemption penalties.¹⁹⁸

Banks are better suited than MMFs to act as guarantors of the commercial paper market. They are subject to an elaborate regime of prudential supervision and have access to deposit insurance and the discount window to help them absorb credit losses. Moreover, they have direct control over the risks embedded in ABCP. They set the underwriting standards and select the assets for ABCP. Their role in the economy is to extend credit based on underwriting standards and to assume the risk of credit losses. They are required to maintain capital for this purpose. That is why they

¹⁹⁷ The Fed's Asset-Backed Commercial Paper Liquidity Program (AMLF) purchased only highly rated ABCP from MMFs in 2008 and suffered no losses. Moreover, the Fed's Commercial Paper Funding Facility loaned to issuers at a penalty rate, which generated income to the Fed. See Testimony of Ben S. Bernanke before the House Committee on Financial Services, February 10, 2009 (“These special lending programs have been set up to minimize credit risk to the Federal Reserve. The largest program, the commercial paper funding facility, accepts only the most highly rated paper. It also charges borrowers a premium, which is set aside against possible losses.”).

¹⁹⁸ During the financial crisis, the FDIC provided unlimited deposit insurance and guaranteed bank debt. The FDIC's authority to extend the federal safety net in that manner in the future was curtailed by the Dodd-Frank Act.

are given access to the sovereign credit and federal safety net. MMFs, in contrast, are little more than pass-through investment vehicles.

If there is a need for additional capital to support the commercial paper market, this capital should come from bank ABCP sponsors. As discussed below, recent changes in the bank capital rules enhance the ability of banks to absorb losses from commercial paper by increasing the amount of capital they are required to hold to support their ABCP activities.

C. Capital Rules Created a Deficit In Bank Capital Prior to the Crisis

A critical weakness during the financial crisis in 2007 and 2008 was insufficient bank capital to withstand liquidity claims on bank backup letters of credit and other guarantees supporting bank-sponsored ABCP conduits. This deficit resulted from bank capital rules that created incentives for banks to structure their activities with reduced capital in a way that ultimately was a source of systemic risk. With less capital, banks were unable to withstand the bursting of the housing bubble and related runs on their ABCP, requiring massive support from the Fed, the FDIC, and Congress.¹⁹⁹

Bank capital rules created systemic risk that contributed to the financial crisis in three ways:

First, the capital rules required banks to hold less capital against residential mortgages than commercial loans. The risk weight for residential mortgage loans was (and is) 50 percent, compared to 100 percent for commercial business loans. Thus, 50 percent less capital was required for residential mortgage loans—including subprime

¹⁹⁹ Among other things, the FDIC provided unlimited deposit insurance for noninterest bearing checking accounts and an unlimited guarantee of bank debt during the crisis. See FDIC Press Release 100-2008 (Oct. 14, 2008). Congress appropriated \$750 billion in the TARP program.

loans—than commercial loans.²⁰⁰ The rules thereby motivated banks to generate more residential mortgage loans than their capital could support.

Second, the capital rules required banks to hold even less capital against residential mortgage loans that were securitized. The risk weight for triple-AAA rated residential mortgage-backed securities (“RMBS”) was (and is) 20 percent.²⁰¹ Thus, banks had capital incentives to sell off their residential whole mortgage loans to securitization vehicles and buy them back in the form of RMBS. Often, the RMBS was packaged with other assets in ABCP conduits and sold to third parties. Going into the financial crisis, banks held substantial amounts of their own RMBS and ABCP as investments for their own accounts.²⁰²

Third, the banking regulators did not require banking organizations to consolidate their ABCP conduits on their balance sheets for regulatory capital purposes, notwithstanding an interpretive standard adopted by the Financial Accounting Standards Board in 2004 that otherwise required consolidation.²⁰³ Moreover, the regulators imposed no capital charge on bank letters of credit or other support for ABCP prior to 2004, and in 2004 imposed only a 10 percent conversion factor, requiring minimal capital. The availability of bank guarantees for ABCP conduits encouraged the growth of ABCP and created demand for more and more mortgage loan assets, including subprime loans. Banks could provide more guarantees to their ABCP conduits because the capital rules did not require such guarantees to be fully capitalized.²⁰⁴

²⁰⁰ See 12 C.F.R. part 225, Appendix A.

²⁰¹ *Id.*

²⁰² See Viral V. Acharya and Matthew Richardson, “Causes of the Financial Crisis,” *Critical Review* Vol. 21, Nos. 2–3, 2009, at 200 (“[I]n fact, investors were not the chief purchasers of these securities: banks themselves were....[T]he banks became primary investors....The goal...was...to avoid minimum capital requirements.”).

²⁰³ See 69 Fed. Reg. 44908 (July 28, 2004). See Appendix hereto for further discussion.

²⁰⁴ Acharya and Richardson at 201 (“Designing the guarantees as ‘liquidity enhancements’ of less than one year maturity (to be rolled over each year) allowed banks to exploit a loophole in Basel capital requirements. The design effectively eliminated the ‘capital charge’ and thus banks achieved a tenfold increase in leverage for a given pool of loans.”).

The capital rules thereby contributed to the buildup of RMBS and ABCP by requiring banks to hold less capital for residential mortgage loans, even less capital for securities backed by such loans, and virtually no capital for bank letters of credit and other guarantees of ABCP conduits.²⁰⁵ Moral hazard resulted as banks relaxed or ignored their own credit underwriting standards, thinking they would not bear the ultimate risk.

The capital rules allowed banking organizations to engage in “regulatory arbitrage.” This arbitrage contributed to the expansion of mortgage lending, unsound loans, the buildup of a housing bubble, and the proliferation of risks to investors who purchased RMBS and ABCP containing RMBS.

Moreover, as described in the Appendix, bank ABCP activities were not constrained by the section 23A limits on bank transactions with affiliates since the Fed did not regard ABCP conduits to be “affiliates” of banks.

Professor Acharya has explained how the capital rules incentivized banks to accumulate systemic risk using ABCP conduits:

Why did the popping of the housing bubble bring the financial system—rather than just the housing sector of the economy—to its knees? The answer lies in **two methods by which banks had evaded regulatory capital requirements.**

First, they had temporarily placed assets—such as securitized mortgages—in off-balance-sheet entities, so that they did not have to hold significant capital buffers against them. Second, the capital regulations also allowed banks to reduce the amount of capital they held against assets that remained on their balance sheets—if those assets took the form of AAA-rated tranches of securitized mortgages. Thus, by repackaging mortgages into mortgage-backed securities, whether held on or off their balance sheets, banks reduced the amount of capital required against their loans, increasing their ability to make

²⁰⁵ See Viral Acharya and Philipp Schnabl, “Do Global Banks Spread Global Imbalances? The Case of Asset-Backed Commercial Paper During the Financial Crisis of 2007–09,” Paper presented at the 10th Jacques Polak Annual Research Conference Hosted by the International Monetary Fund, Nov. 5–6, 2009 at 21.

loans many-fold. The principal effect of this regulatory arbitrage, however, was to concentrate the risk of mortgage defaults in the banks and render them insolvent when the housing bubble popped.²⁰⁶

. . . . [E]specially from 2003 to 2007, **the main purpose of securitization was not to share risks with investors, but to make an end run around capital-adequacy regulations. The net result was to keep the risk concentrated in the financial institutions—and, indeed, to keep the risk at a greatly magnified level, because of the overleveraging that it allowed.**²⁰⁷

. . . . [T]he financial firms that used off-balance-sheet entities had, through the guarantees they issued on the ABCP, written huge quantities of insurance against a systemic decline in the overall economy.²⁰⁸

Professor Acharya and co-authors have further described how banks used ABCP for regulatory arbitrage to reduce their capital without transferring the risks of ABCP:

Our main conclusion in this paper is that, somewhat surprisingly, this crisis in the ABCP market did not result (for the most part) in losses being transferred to outside investors in ABCP. Instead, **the crisis had a profoundly negative effect on commercial banks because banks had—in large part—insured outside investors in ABCP by providing explicit guarantees to conduits**, which required banks to pay off maturing ABCP at par. Effectively, banks had used conduits to *securitize assets without transferring the risks* to outside investors, contrary to the common understanding of securitization as a method for risk transfer. We argue that **banks instead used conduits for regulatory arbitrage.**

²⁰⁶ Acharya and Richardson at 195. See also Viral V. Acharya and Thomas Cooley, Matthew Richardson and Ingo Walter, “Manufacturing Tail Risk: A Perspective on the Financial Crisis of 2007–2009,” *Foundations and Trends in Finance*, Vol. 4, No. 4 (2009) 247–325, 2010.

²⁰⁷ Acharya and Richardson at 195.

²⁰⁸ *Id.* at 206. See also Acharya, Cooley, Richardson and Walter at 295 (“the guarantees were in fact 100% and were un-priced. . . . guarantees were structured in a way that reduced and effectively eliminated regulatory capital requirements.”).

. . . We find that the majority of guarantees were structured as capital-reducing liquidity guarantees and that the majority of conduits were sponsored by commercial banks. . . . Also, we note [] that the growth of ABCP stalled in 2001 after regulators discussed an increase in capital requirements for conduit guarantees (following the failure of Enron which had employed conduit-style structures to create off-balance sheet leverage) and picked up again, especially the issuance of liquidity-guaranteed paper by commercial banks, after a decision against a significant increase was made in 2004.

. . . . [W]e find that liquidity-guaranteed ABCP was issued more frequently by commercial banks with low *economic* capital, measured by their book value of equity relative to assets.²⁰⁹

In 2010, the Fed and other banking regulators admitted that they had underestimated the amount of bank capital needed to support bank ABCP activity. They amended their capital rules to require full consolidation of ABCP conduits for regulatory capital purposes, eliminating the exclusion they adopted in 2004 which had reduced the capital requirements for bank ABCP.²¹⁰ Going forward, bank ABCP sponsors will be required to consolidate fully their ABCP conduits on their balance sheets for risk-based capital purposes.²¹¹

The new rule will enhance the ability of banks to withstand future runs on their ABCP by MMFs or other investors in the event of a systemic crisis. Banks will be

²⁰⁹ Viral V. Acharya, Philipp Schnabl, and Gustavo Suarez (senior economist, Federal Reserve Board), “Securitization Without Risk Transfer,” Aug. 8, 2011 at 3-4, available at SSRN.com.

²¹⁰ 75 Fed. Reg. 4636 (Jan. 28, 2010). See also discussion in section IV.H. *supra*.

²¹¹ As described in the Fed’s BHC Supervision Manual: “Banking organizations that are required to consolidate ABCP program assets must include all of the program assets (mostly receivables and securities) and liabilities (mainly commercial paper) on their balance sheets for purposes of the Consolidated Financial Statements for Bank Holding Companies (FR Y-9C Report) or the bank Reports of Condition and Income (Call Reports).” Federal Reserve Board, BHC Supervision Manual § 2128.03.3. The new rule is intended to align bank capital requirements with changes to generally accepted accounting standards in FAS 166 and 167 adopted by FASB in 2009. See 75 Fed. Reg. 4636 (Jan. 28, 2010). The rule will make commercial paper a more expensive alternative for businesses to finance their operations as banks likely will need to charge higher fees for packaging ABCP in order to cover their capital costs.

required to hold additional capital to more fully support their ABCP conduits. In addition, the overall level of bank capital will increase when new capital rules take effect under the Dodd-Frank Act and the revised Basel capital framework.²¹²

Imposing bank-like capital requirements on MMFs to address the inadequacy of capital backing bank ABCP is misguided in any case. Professor Roberta Romano has written that the Basel rules created “powerful” and “perverse” incentives for banks to acquire securitized mortgage assets (including subprime mortgages) and thereby increased systemic risk and destabilized the financial system.²¹³ Her paper argues that extending the Basel capital requirements to financial institutions outside the banking system would be a mistake:

The source of the cascade, however, bears repeating, that it was in the short-term funding markets used by institutions operating under Basel capital requirements.

Given the scale of the bailout needed by Basel-regulated firms, one might have expected that the experience would have led financial regulators to view it, at minimum, as a cautionary tale against the desirability of pursuing further international regulatory harmonization. For it should have alerted them to the fact that international regulatory harmonization contributed, to be sure unwittingly, to a catastrophic event: **Basel rules generated an increase in systemic risk, due to Basel-regulated financial institutions’ following broadly similar, flawed business strategies in response to mistaken regulatory incentives.** At the least, in the aftermath of the crisis, regulators and public officials should have emerged humbled by their ex ante inability both to identify a looming problem and to incentivize financial institutions properly. Instead, there has been a total disconnect, as the call has been, to the contrary, not only to increase dramatically harmonization of bank regulation, but also to increase the scope of harmonized regulation to include other markets,

²¹² See “Dodd-Frank Act Implementation; Capital Regulation After Dodd-Frank,” Statement by Governor Daniel K. Tarullo Before the Committee on Banking, Housing, and Urban Affairs, U.S. Senate, Washington, D.C., Dec. 6, 2011.

²¹³ See Roberta Romano, “For Diversity in the International Regulation of Financial Institutions: Rethinking the Basel Architecture,” Yale Law School, unpublished manuscript, Jan. 2, 2012.

instruments, and institutions, and in particular, hedge funds, financial institutions that weathered the financial crisis relatively well, or when they failed, did so at no cost to the fisc.²¹⁴

Professor Romano points to the “disconnect” in the Basel capital rules that incentivized banks to invest heavily in foreign sovereign debt, just as the rules created incentives for them to invest in ABCP backed by subprime mortgages:

The disconnect is even more pronounced from the perspective of the present day financial crisis over the debt of members of the European Union, for it is another instance where the **Basel framework created perverse incentives that have had a devastating impact of decreasing, rather than increasing, financial system stability.** At the heart of the European Union’s ongoing financial crisis is the treatment of sovereign debt as riskless under the Basel standardized risk weights.²¹⁵

As Professors Romano and Acharya have shown, the Basel capital framework had a destabilizing effect on the financial system. In light of their analysis, the idea of applying capital standards to MMFs seems particularly inappropriate.

D. **Bank Capital Rules Are Inappropriate for MMFs**

The notion that capital standards will enhance the stability of MMFs, which already are more stable than banks, is suspect for other reasons as well. Among other things, a capital buffer would suggest that MMFs are guaranteed, which they are not, and thereby create moral hazard.

Moreover, bank capital standards seem inappropriate given the fundamental differences between MMFs and banks. Capital requirements are a core feature of banking regulation. The principal purpose of capital is to provide a cushion to absorb credit losses, not to protect banks from liquidity runs. Bank assets typically are loans that carry a risk of non-payment and cannot be liquidated to repay depositors. Capital provides a reservoir of funds that can be tapped to cover credit losses. Banks have

²¹⁴ *Id.* at 42 (footnotes omitted).

²¹⁵ *Id.* at 43 (footnotes omitted).

access to Federal Reserve liquidity facilities to meet excessive depositor demand. Bank capital requirements are imposed as a percentage of bank assets, generally about 10 percent, on a risk-weighted basis designed to reflect the riskiness of different types of assets.

Unlike banks, MMFs by law are allowed to invest only in short-term, highly-liquid assets that can be liquidated quickly to meet rapid redemption requests in most circumstances. Unlike banks, MMFs are meant to be self-liquidating in a relatively short period of time. If the value of a fund's net assets falls below \$.995, the fund must be liquidated. MMFs are viewed as having 100 percent capital to the extent their shareholders own all of the assets in the fund, less expenses. For this reason, among others, capital requirements never have been part of the regulatory regime governing MMFs.

Industry commentators will be discussing the infeasibility of applying a capital buffer on MMFs, including the cost to fund shareholders, which would cause MMFs to lose much of their efficiency and utility.²¹⁶ In addition, it is doubtful that any amount of capital buffer would be sufficient to do what the Fed seems to have in mind—i.e., convert MMFs into lenders of last resort to the commercial paper market.

It is important to remember that capital is not a guarantee against failure. Hundreds of banks that were subject to the Basel capital framework failed during the financial crisis. Hundreds more failed in the twenty years preceding the crisis. Moreover, at least two very large investment banks that were subject to the Basel standards failed during the crisis, notwithstanding that they were deemed to have adequate capital days beforehand.²¹⁷

²¹⁶ See, e.g., Treasury Strategies, Inc., “Proposed Capital Requirement for Money Market Mutual Funds: A Disaster on All Fronts,” in comment letter dated March 19, 2012, submitted in response to SEC Release No. IC-29497; File No. 4-619. See also Treasury Strategies, Inc. letter to SEC dated March 13, 2012.

²¹⁷ See Final Report of the Financial Crisis Inquiry Commission at 288, Statement by Christopher Cox, former Chairman, Securities and Exchange Commission (“At all times during the week of March 10 to 17, up to and including the time of its agreement to be acquired by JP Morgan, Bear Stearns had a capital cushion well above what is required.”).

E. Requiring MMFs to Backstop Commercial Paper Would Create Moral Hazard

Requiring MMFs to backstop the commercial paper market would create moral hazard by fostering the impression that both commercial paper and MMFs are guaranteed. Such an impression is misleading and a source of systemic risk.

SEC Chairman Schapiro has noted that discretionary capital support provided by MMF sponsors in 2008 “had the perverse effect of lulling investors into the belief that losses were extremely remote, if not somehow impossible, due to sponsor support.”²¹⁸ When sponsor support proved inadequate or unavailable, MMF shareholders rapidly redeemed their MMF shares. It is unclear why a mandatory capital support would not exert a similar effect.

One of the few published Fed staff studies concerning MMFs suggests that imposing capital requirements on MMF sponsors or shareholders as a means of absorbing credit losses would increase moral hazard. The staff study concludes that sponsor support of MMFs—particularly by banking organizations—is a potential source of moral hazard and systemic risk in the financial system and may have exacerbated the financial crisis:

The link between sponsor risk and holdings of distressed paper during the ABCP crisis indicates that the sponsor-support option may distort incentives for portfolio managers, and the role of sponsor risk in channeling concerns about financial institutions to their off-balance-sheet MMFs during the 2008 run suggests that expectations for such support may contribute to transmission of financial shocks. These concerns at least warrant greater attention to the systemic risks posed by the MMF industry’s reliance on sponsor support.²¹⁹

The paper applauds the impressive safety record of MMFs:

²¹⁸ Remarks of SEC Chairman Mary Schapiro at the Annual Meeting of SIFMA, Nov. 7, 2011.

²¹⁹ Patrick E. McCabe, Senior Economist, Federal Reserve Board, “The Cross Section of Money Market Fund Risks and Financial Crises,” Finance and Economics Discussion Series 2010-51 (2010) at 3.

Money market funds (MMFs or “money funds”) have an impressive record of price stability. From the introduction of the rules specifically governing these funds in 1983 until the Lehman bankruptcy in September 2008, only one small MMF lost money for investors, and that loss, in 1994, had little broader impact on the industry. Although MMF prospectuses and advertisements must warn that “it is possible to lose money by investing in the Fund” (U.S. Securities and Exchange Commission, 1998a, 2003), **investors virtually never lost anything.**²²⁰

Yet, the Fed staff study concludes that sponsor support for MMFs may have undermined prudent management of MMFs, particularly those that were bank-affiliated and “significantly more likely to hold distressed ABCP than other funds”:

Although sponsor risk was not a significant factor in the cross-section of net flows during the ABCP crisis, one proxy for sponsor risk—whether an MMF was affiliated with a bank—was a significant predictor of poor outcomes during this episode. **Bank-affiliated money funds were more likely to receive sponsor support and to hold distressed ABCP in their portfolios.**²²¹

Hence, **sponsor support has likely increased investor risk for MMFs.** The fact that funds with bank sponsors were more likely to have held distressed ABCP and to have received sponsor bailouts in the wake of the ABCP crisis also suggests that the possibility of **sponsor support may undermine incentives for prudent asset management.**²²²

Furthermore, during the run in 2008, concerns about the ability of sponsors to support their MMFs evidently prompted heavier redemptions from money funds with weaker sponsors, and thus transmitted the sponsors’ strains to off-balance-sheet MMFs and into short-term funding markets. Thus, **by fostering expectations of implicit recourse to sponsors, past support actions had created a channel for the transmission during crises of strains** between entities that should not have been related. **Whether or not such support was actually delivered, it may have contributed to financial strains.**

²²⁰ *Id.* at 1.

²²¹ Report at 34.

²²² Report at 35.

Bailouts of MMFs during the run required scarce capital from sponsors at a time when liquidity was in short supply and worsened some sponsors' financial condition (Standard & Poor's, 2008a). But Reserve's failure to provide support that investors had come to expect was catastrophic for the Reserve franchise and destabilizing for the financial system. Moreover, **despite the apparent importance of sponsor support for MMFs, the practice is discretionary, unregulated, and opaque, and it is probably most unreliable when systemic risks are most salient.**²²³

The Fed staff paper argues for greater attention to the systemic risks posed by the MMF industry's reliance on discretionary sponsor support.²²⁴ A requirement that MMFs maintain a mandatory capital buffer to absorb losses from the commercial paper market is a form of sponsor support that would seem inconsistent with the conclusions in the Fed staff paper. Among other things, a capital buffer theoretically would encourage fund managers to increase yield by purchasing more risky commercial paper. Investors never could be certain that the capital buffer would be sufficiently large to cover all potential fund losses, and still would act in a risk-averse manner during a crisis.

F. **The Capital Buffer Concept Would Further Depress the Commercial Paper Market**

The ABCP market has contracted substantially since 2007. It is not expected to regain its former levels in the near future. The MMF capital buffer concept is unlikely to revive interest in the commercial paper market by MMFs or to achieve the Fed's goal of enhancing the market. To the contrary, it would substantially diminish MMFs as significant purchasers of commercial paper to the extent that MMF shareholders reject the idea of paying a tax to backstop the commercial paper market.

²²³ Report at 35.

²²⁴ *Id.* at 2.

According to a report by Moody's Investor Service, from 2007 to 2011 MMFs decreased their ABCP holdings from 25 percent to 8.3 percent of their portfolios.²²⁵

Moody's attributes this reduction to the following:

- investors are more risk averse to structured finance as a result of the financial crisis;
- ABCP is viewed by some MMF managers as contrary to a fund's objectives, which is to maintain liquidity;
- the overall credit quality of financial institutions providing liquidity to ABCP conduits has deteriorated; and
- the lack of disclosure of ABCP and opacity in terms of conduit structure prevents investors from fully understanding the risks of ABCP.

Moody's stated that, in the current challenging operating environment, it expects that conservative MMF portfolio strategies will persist and, as a consequence, MMF investments in ABCP will remain limited.

As discussed *infra*, the Fed does not appear to have studied the implications of the capital buffer concept for either MMFs or the commercial paper market. On its face, the concept would seem to dramatically alter the economics of the market with unforeseen consequences.

Among the questions begging an answer is why the cost of supporting the commercial paper market should not be vested with those who create the risk in the market—namely, the institutions that create the commercial paper and use the commercial paper market to finance their activities (i.e., banks and other commercial paper issuers), especially banks that already have access to Federal Reserve credit. As the Financial Stability Oversight Council has explained, the end purchaser of securitized commercial paper is the least able to influence the risks of the underlying assets:

The securitization process involves multiple parties with varying incentives and information, thereby breaking down the traditional direct relationship between borrower and lender.

²²⁵ Moody's Investor Service, "Money Market Funds: ABCP Investments Decrease," Special Comment, Dec. 7, 2011.

The party setting underwriting standards and making lending decisions (the originator) and the party making structuring decisions (the securitizer) are often exposed to minimal or no credit risk. By contrast, the party that is most exposed to credit risk (the investor) often has less influence over underwriting standards and may have less information about the borrower. As a result, originators and securitizers that do not retain risk can, at least in the short run, maximize their own returns by lowering loan underwriting standards in ways that investors may have difficulty detecting.²²⁶

Fed Governor Tarullo has recognized that investors had nothing to do with the problems of asset-backed securities that contributed to the financial crisis:

The severe problems now associated with ABS [asset-backed securities] began with assets held by mismatched entities like structured investment vehicles or financial institutions engaged in capital arbitrage under Basel II, not those held by end investors.²²⁷

G. The Main Beneficiaries of a MMF Capital Buffer Would Be Banks

The principal beneficiaries of a MMF capital buffer would be the issuers and sponsors of commercial paper, primarily banks. MMFs and their shareholders would be required to set aside assets to absorb losses that appropriately should be borne by bank commercial paper issuers and guarantors in the event of defaults or rating downgrades. The availability of a MMF capital buffer to cover losses coupled with redemption restrictions, so it is thought, would prevent prime MMF shareholders from “running” in times of stress and thereby avoid “dumping” of commercial paper back on the banks that created it.

The buffer concept effectively would tax MMF shareholders for holding ABCP and other commercial paper and thereby subsidize banks and other issuers by

²²⁶ Macroeconomic Effects of Risk Retention Requirements, Report of the Financial Stability Oversight Council pursuant to Section 946 of the Dodd-Frank Wall Street Reform and Consumer Protection Act, January 2011, at 3.

²²⁷ Daniel K. Tarullo, Governor, Federal Reserve Board, Comments on “Regulating the Shadow Banking System” at the Brookings Panel on Economic Activity, Sept. 17, 2010.

forcing MMF shareholders to absorb credit losses. Currently, bank commercial paper sponsors agree to provide backup liquidity to their ABCP vehicles in order to obtain a high credit rating. The proposed MMF capital buffer likely would lessen the extent to which banks would be called upon to support their own ABCP in the event of market stress and thus would relieve them of a degree of market discipline that otherwise might temper their credit underwriting standards when they create ABCP. In other words, moral hazard would potentially increase the risks embedded in ABCP. MMFs and their shareholders—not banks—would bear that risk and would be expected to absorb runs in the commercial paper market. It is unlikely, however, that any amount of capital buffer could absorb a run on the commercial paper market such as occurred in 2007 and 2008 which left the banking system “effectively insolvent.”²²⁸

Even if MMFs ceased to exist, ABCP still would be vulnerable to runs. Elimination of MMFs would not prevent institutional investors from investing in ABCP, assuming the market for ABCP revives. These investors—pension funds, corporate treasurers, municipal controllers, and other short-term investors—would continue to invest in ABCP, albeit without the diversification and efficiency offered by MMFs. In the event of trouble in the ABCP market, these highly risk-averse investors would withdraw and refuse to rollover their ABCP holdings, just as they did in 2007 and 2008.

In addition to relieving banks of potential losses, a MMF capital buffer potentially would bolster the overall credit rating of commercial paper. Banks then could issue commercial paper more readily and derive enhanced revenues from their commercial paper activities—at the expense of MMF shareholders.

²²⁸ Gary B. Gorton, “Slapped in the Face by the Invisible Hand: Banking and the Panic of 2007,” prepared for the Federal Reserve Bank of Atlanta’s 2009 Financial Markets Conference: Financial Innovation and Crisis, May 9, 2009, at abstract. Gary B. Gorton and Andrew Metrick, “Securitized Banking and the Run on Repo,” November 9, 2010, Yale ICF Working Paper No. 09-14 (“the U.S. banking system was effectively insolvent for the first time since the Great Depression.”).

Requiring MMFs and their shareholders to absorb commercial paper losses effectively would place MMFs in the position of subsidizing bank issuers and sponsors of commercial paper and the commercial paper market as a whole. If industry experts are correct that a capital buffer would drive investors away from MMFs, the end result still would be a boon to banks to the extent that shareholders would attempt to place much of their cash in bank deposits.²²⁹

H. Uninsured Bank Deposits Likely Would Increase If MMFs Are Impaired by Fed Regulatory Proposals

If MMFs are eliminated or impaired as a result of a capital buffer or other proposals, the likely result would be a substantial increase in uninsured bank deposits.

MMFs held approximately \$2.7 trillion in assets as of year-end 2011.²³⁰ Much of this amount would be diverted to banks. Cash-rich investors would have few other places to put their cash. Short-term Treasury bills are in short supply due to Fed monetary policy easing.²³¹ Investors with cash might purchase longer-term Treasury

²²⁹ A recent Wall Street Journal article encouraged MMF investors to transfer their funds from MMFs to bank deposits. See “Time to Leave Your Money Market Fund: Banks offer much better rates and an added layer of protection,” Wall Street Journal, Feb. 12, 2012. Currently, however, many banks are shunning deposits due to limited lending opportunities and balance sheet concerns.

²³⁰ Source: Investment Company Institute statistical data. This amount represents a decrease of over \$1.0 trillion from 2009, most of which went to banks when the FDIC, without legal authority, extended temporary unlimited deposit insurance to noninterest bearing business checking accounts. This unlimited insurance—in excess of the normal \$250,000—will end on December 31, 2012, as mandated by the Dodd-Frank Act.

²³¹ See “The Great Treasury Bill Shortage,” Business Week, November 17, 2011 (“The Treasury is issuing less in bills than it’s paying off, leading to lower rates and possible damage to money-market funds. . . . The market for U.S. Treasury bills—which mature in one year or less—is poised to shrink, creating a shortage and helping keep government borrowing costs near record lows. The Treasury Dept. will issue about \$72 billion less in bills than it will pay off in December and January. . . . The contraction partly reflects a surge in corporate taxes that the Treasury collects this time of year, lessening its need to borrow. It also underscores a shift in the financing strategy of the government, which boosted bills outstanding to a record \$2.07 trillion in August 2009 as it raised cash to bail out the nation’s banks. As those stresses abated, the amount of bills outstanding has dropped to \$1.48 trillion, or about 15 percent of all Treasury debt, the smallest percentage in almost half a century. . . . Low borrowing costs are a bonus for the government as lawmakers struggle to reduce the budget deficit, which exceeds \$1 trillion. ‘The winner in the short term is the U.S. Treasury and the Fed,’ says Mark C.

bills, which are not in short supply, but most cash investors need daily access to their funds. Managing a portfolio of constantly maturing Treasury bills is cumbersome in any event.

Other alternatives for cash investors include ABCP and the repo market. But those markets are in decline, in part because the Fed has soaked up much of the available collateral. The ABCP market has contracted for want of creditworthy assets to securitize and because of increased capital requirements on bank sponsors. Pending risk retention requirements required by the Dodd-Frank Act have depressed the market further. The repo market has declined due to the reduction in available Treasury bills and other collateral. Also, a recent change in the FDIC deposit insurance assessment base from deposits to assets means that banks are assessed a premium on managed liabilities and thus are more reluctant to engage in repo transactions.²³²

The contraction in the short-term credit markets and loss of MMFs as investors would mean that more cash investors would invest their cash in uninsured bank deposits. Banks in turn will place this cash on deposit with the Fed in the form of excess reserves on which the Fed pays banks interest.²³³

MacQueen. . . .The losers are savers, as low Treasury bill rates help push down rates on all short-term debt. ‘The biggest unintended consequence is that it’s damaging for money-market accounts, the cornerstone of our financial system’.”).

²³² Prior to the Dodd-Frank Act, the federal deposit insurance assessment base was based on an insured bank’s deposits. The Dodd-Frank Act changed the assessment base so that assessments now are calculated based on average consolidated total assets minus average tangible equity.

²³³ In the absence of a surge of economic activity, banks have no need of excess deposits to fund loans. Fed researchers have stated: “When the market interest rate is zero, banks no longer face an opportunity cost of holding reserves and, hence, no longer have an incentive to lend out their excess reserves.” See Todd Keister and James McAndrews, “Why Are Banks Holding So Many Excess Reserves?” Federal Reserve Bank of New York Staff Report no. 380, July 2009. The authors explain that the Fed’s liquidity facilities have created a large quantity of reserves, these reserves can only be held by banks, and paying interest on excess reserves is a means by which the Fed can maintain its influence on market interest rates independent of the large quantity of reserves. Banks generally have not passed through to depositors the interest they earn on excess reserves.

Excess reserves have increased from practically nothing before the financial crisis to approximately \$1.5 trillion.²³⁴ Most of this amount has come from MMFs. Record low interest rates and unlimited deposit insurance have resulted in an outflow of cash from MMFs to banks and to the Fed's vault where it has offset the Fed's purchases of government securities and mortgage-backed securities in its "quantitative easing" policy. But rather than pay interest to MMFs and their shareholders, the Fed is paying interest to banks.

Banks have been able to attract deposits they otherwise would not hold because of the unlimited federal deposit insurance currently available to noninterest bearing deposits.²³⁵ This insurance will expire at the end of 2012, however, as mandated by Congress in the Dodd-Frank Act.²³⁶ As a result, unless the supply of short-term Treasury bills increases, many cash investors will be left holding substantial cash in uninsured bank deposits if MMFs are no longer available.

Banks thus would benefit from the elimination or impairment of MMFs, but short-term investors will have fewer investment choices and bear greater risk.

Because a large portion of the uninsured deposits would be brokered deposits, the banking system would become less stable.²³⁷ Uninsured depositors typically are highly risk-sensitive and an increase in uninsured deposits would increase the vulnerability of banks to runs. Such a run can be costly to stop.²³⁸ Uninsured bank deposits have been categorized as part of the "shadow banking system."²³⁹

²³⁴ Federal Reserve Statistical Release H.3, Aggregate Reserves of Depository Institutions.

²³⁵ See Federal Deposit Insurance Corporation, Press Release dated Nov. 9, 2010, "FDIC Approves Temporary Unlimited Deposit Insurance Coverage for Noninterest-Bearing Transaction Accounts."

²³⁶ Dodd-Frank Wall Street Reform and Consumer Protection Act, § 343.

²³⁷ A study of brokered deposits by the FDIC concluded that "brokered deposits are correlated with behaviors that increase the risk of failure" and "brokered deposits tend to increase the FDIC's losses when a bank fails." Federal Deposit Insurance Corporation, Study on Core Deposits and Brokered Deposits, July 8, 2011, at 47.

²³⁸ The run by uninsured depositors in 2008 on Wachovia Bank, which had been deemed "well-capitalized" under bank regulatory standards, led the Fed and FDIC to agree to a \$312 billion loss sharing arrangement with Citigroup as a condition for taking over Wachovia.

Thus, elimination of MMFs as a means of repressing the shadow banking system would accomplish little but push these activities back into the regulated banking system operating under a vastly expanded federal safety net and ultimate taxpayer protection.

Moreover, an increase in bank deposit liabilities would mean that bank assets would increase correspondingly, requiring banks to raise additional capital to support those assets.²⁴⁰

I. Banking Concentration Would Increase

If the capital buffer or other regulatory changes cause investors to transfer cash from MMFs to banks, concentration in the banking system will increase significantly. The largest banks have become even larger as a result of the financial crisis. A shift of cash from MMFs to banks would cause them to become larger still, exacerbating the “too-big-to-fail” problem.

In addition to increased concentration of uninsured bank deposits, the loss of MMFs would mean that the commercial paper market would become highly dependent upon a handful of large banks to hold commercial paper. The market thus would become more vulnerable in a crisis. Regulators have recognized the benefits of

Wachovia ultimately was acquired by Wells Fargo in a non-federally assisted transaction. See Testimony by Scott G. Alvarez, General Counsel, Federal Reserve Board, before the Financial Crisis Inquiry Commission, Sept. 1, 2010, *The Acquisition of Wachovia Corporation by Wells Fargo & Company*.

²³⁹ See Morgan Ricks, *Shadow Banking and Financial Regulation*, unpublished draft dated Aug. 30, 2010, available at SSRN.com, at 11. According to this author, short-term liabilities held in the “shadow banking system” in 2007 totaled \$11.2 trillion, of which \$2.7 trillion was uninsured deposits, \$1.2 trillion was ABCP, and \$3.1 trillion was MMFs. In comparison, total FDIC-insured deposits totaled \$4.8 trillion.

²⁴⁰ The Fed’s recent Monetary Policy Report described the pressure on bank capital of a shift of MMF assets to banks: “Money market funds, a major provider of funds to short-term funding markets such as those for CP and for repo, experienced significant outflows across fund categories in July, as investors’ focus turned to the deteriorating situation in Europe and to the debt ceiling debate in the United States. Those outflows largely shifted to bank deposits, resulting in significant pressure on the regulatory leverage ratios of a few large banks.” Federal Reserve Board, *Monetary Policy Report to Congress*, Feb. 29, 2012, at 22. The report noted, however, that overall MMF assets increased as investors shifted more of their funds in MMFs that invest only in Treasury securities.

ABCP as a means of transferring credit risk to a wide array of investors and thereby dispersing risk. A decline in the commercial paper market would lessen this benefit and concentrate risk.

The Fed needs to address how the commercial paper market would function without MMFs, which currently hold approximately one-half of all commercial paper issued in the United States. If the capital buffer resulted in further withdrawal by MMFs from the commercial paper market, or the eclipse of MMFs altogether, the commercial paper market would further contract. While a reduction in overall outstanding debt in the economy may be part of a necessary “deleveraging” policy being pursued by the Fed, at some point the economy again will need a vibrant commercial paper market to support economic activity and growth.

Banks cannot purchase the same volume of commercial paper as MMFs because of Basel capital requirements under which commercial paper is risk-weighted and subject to a leverage ratio. More business financing would occur in the form of bank loans, as was the case before the commercial paper market developed. That model, whereby demand deposits support 30-year loans, proved fundamentally flawed. Given the shrinking number of banks, credit risk would be concentrated in fewer banks, increasing the financial system’s vulnerability to systemic risk.

J. The Financial System Would Lose Diversity

The elimination of MMFs would remove an important element of competition, diversity, safety, and efficiency that has served the financial system well for over forty years. MMFs have counterbalanced weaknesses in the banking system and, because of their risk-averse nature, exerted an element of market discipline within the financial system. They are a type of risk barometer in the financial system.

MMFs developed as a means by which individual and institutional investors can earn market rates of return on their cash. MMFs can offer higher rates of return than bank deposits because, among other things, they are more efficient than banks. Due to their more limited activities, their operations are more streamlined and they have lower operating costs. For large depositors, MMFs offer a service that banks

cannot provide—a highly-liquid, high quality diversified investment vehicle that is safer than uninsured bank deposits.

Competition from MMFs forced federal regulators to remove antiquated restrictions on the ability of banks to pay interest on demand deposits, thereby enhancing competition in the financial marketplace. MMFs have become a cost-efficient tool for institutional cash managers, providing greater diversification and liquidity at a much smaller cost than could be obtained by a treasurer managing an individual portfolio of short-term investments.

Former Fed Chairman Volcker highlighted the benefits of MMFs shortly after they emerged in the financial system:

Money market funds offer a high yielding asset that also is highly liquid, in that it can be redeemed quickly by a variety of methods without the penalties associated with early withdrawal of time deposits and with only a small risk of declines in the market value of the investment. The funds have attracted a diverse group of shareholders. For many institutional investors—such as bank trust departments—the appeal of money market funds derives from the asset diversification and professional management the funds offer at low cost. For these investors, the funds primarily provide an alternative to direct purchases of money market instruments. For households and small businesses, on the other hand, the low minimum purchase requirements of the funds allow access to money market yields by investors who otherwise would find their short-term options quite circumscribed.²⁴¹

The MMF industry’s record of safety and stability is well known. Only one MMF “broke a dollar” during the 2008 financial crisis and shareholders of that fund got back more than 99 cents on the dollar. Operating within the framework of the Investment Company Act of 1940 and SEC regulations thereunder, MMFs historically have conducted themselves with a record of safety and soundness far superior to that

²⁴¹ Paul A. Volcker, Chairman, Federal Reserve Board, Statement before a Subcommittee of the House Committee on Banking, Finance and Urban Affairs, June 25, 1981. Volcker went on to ask Congress to authorize the Fed to impose reserve requirements on MMFs, as discussed *infra*.

of the banking industry. Other commentators have described the benefits and safety record of MMFs²⁴² and this paper will not elaborate on them further.

By holding short-term assets outside the banking system, MMFs also reduce the size of the federal safety net and exposure of taxpayers to instability at banks. The concentration of additional short-term assets in the banking system would expose those assets to political pressures regarding the allocation of credit in the economy. For example, banks are subject to the Community Reinvestment Act and other regulations—including capital requirements—that encourage the allocation of credit to the household sector. These regulations contributed to the housing bubble that fueled the recent financial crisis and regulatory arbitrage that resulted in undercapitalized risk-taking by banks.²⁴³

The concentration of additional assets in the banking system would mean that more of the financial system would be subject to banking regulation and the mistakes of banking regulators. As commentators elsewhere have described at length, regulatory action and inaction by U.S. banking regulators contributed in significant ways to the buildup of risks in the banking system prior to the crisis. A diversity of regulators, along with a diversity of institutions, may foster a healthier financial system in the long run.

K. Regulatory Reform of the ABCP Market Addresses the Fed's Concerns

Fed officials have said that regulatory changes are needed to increase the “resiliency” of MMFs and avoid their “susceptibility to runs” because of the importance of MMFs to the commercial paper market.²⁴⁴ As described herein, the

²⁴² See letters submitted in response to Securities and Exchange Commission Release No. IC-29497; File No. 4-619, available at <http://www.sec.gov/comments/4-619/4-619.shtml>.

²⁴³ There generally was no bubble in the corporate credit market, for example, because corporate loans generally are fully risk-weighted under the capital rules, unlike residential housing mortgages, which are assigned a 50 percent risk-weight, and mortgage backed-securities, which can be risk-weighted as low as 20 percent.

²⁴⁴ Federal Reserve Board Chairman Ben S. Bernanke, Remarks at the Council on Foreign Relations, Washington, D.C., March 10, 2009, “Financial Reform to Address Systemic Risk

resiliency of the commercial paper market and its susceptibility to runs is what really concerns the Fed, not the protection of MMF shareholders.

The Fed and other banking regulators have taken a number of significant steps to increase the resiliency of the bank commercial paper market directly. As noted, the regulators have reformed the capital rules to require banks to consolidate their ABCP conduits for regulatory capital purposes, thereby increasing the amount of capital supporting the ABCP market.

Bank regulators also are in the process of reforming the underlying securitization practices of banks on which the asset-backed commercial paper market depends. They have proposed new rules to implement provisions of the Dodd-Frank Act requiring banks to retain a portion of the risks in securitized assets.²⁴⁵ The Dodd-Frank Act imposes credit risk retention requirements under which firms that create asset-backed securities must retain not less than five percent of the credit risk for certain securitized assets.²⁴⁶ As described by banking regulators, these provisions “are intended to help address problems in the securitization markets by requiring that securitizers, as a general matter, retain an economic interest in the credit risk of the assets they securitize.”²⁴⁷

The risk retention concept is explained in a report by the Financial Stability Oversight Council as follows:

Over the past forty years, asset-backed securitization has become an increasingly important source of credit formation for the economy. Securitization offers many benefits, including increased liquidity, expanded credit availability, and reduced cost of credit. Without proper safeguards, however, securitization can introduce significant risks to financial

(“In light of the importance of money market mutual funds—and, in particular, the crucial role they play in the commercial paper market, a key source of funding for many businesses—policymakers should consider how to increase the resiliency of those funds that are susceptible to runs.”).

²⁴⁵ 76 Fed. Reg. 24090, 24096 (April 29, 2011) (proposed rule to implement risk retention requirements).

²⁴⁶ Section 941 of the Dodd-Frank Act, codified at 15 U.S.C. § 78o-11.

²⁴⁷ 76 Fed. Reg. 24090, 24096 (April 29, 2011).

markets and to the economy. The securitization process involves multiple parties with varying incentives and information, thereby breaking down the traditional direct relationship between borrower and lender. The party setting underwriting standards and making lending decisions (the originator) and the party making structuring decisions (the securitizer) are often exposed to minimal or no credit risk. By contrast, the party that is most exposed to credit risk (the investor) often has less influence over underwriting standards and may have less information about the borrower. As a result, originators and securitizers that do not retain risk can, at least in the short run, maximize their own returns by lowering loan underwriting standards in ways that investors may have difficulty detecting. The originate-to-distribute model, as it was conducted, exacerbated this weakness by compensating originators and securitizers based on volume, rather than on quality.

The academic literature provides evidence that mortgage-backed securitization contributed to a decline in underwriting standards during the mid-2000s, facilitating an over-supply of excessively risky mortgages. There is also evidence that the expansion of mortgage supply through securitization helped accelerate price increases in the housing market to unsustainable levels and, therefore, contributed to the ensuing decline in housing prices and the economy.²⁴⁸

The FSOC report recommends that regulators adopt a risk retention framework that would do the following:

- align incentives without changing the basic structure and objectives of securitization transactions;
- provide for greater certainty and confidence among market participants;
- promote efficiency of capital allocation;
- preserve flexibility as markets and circumstances evolve; and
- allow a broad range of participants to continue to engage in lending activities, while doing so in a safe and sound manner.²⁴⁹

²⁴⁸ Macroeconomic Effects of Risk Retention Requirements, Report of the Financial Stability Oversight Council pursuant to Section 946 of the Dodd-Frank Wall Street Reform and Consumer Protection Act, January 2011 at 3.

²⁴⁹ *Id.*

The report notes that a risk retention framework can be structured in a number of ways that address the form of risk retention, allocation of risk retention to various participants in the securitization chain, amount of risk retention, allowances for risk management, and exemptions from risk retention. The report states that, while risk retention rules can help align incentives and improve credit underwriting standards, “the macroeconomic implications of risk retention are complex.” Without appropriate reforms, securitization “can cause significant harm to the economy.”²⁵⁰

The risk retention rules proposed by the Fed and other banking regulators, among other things, include special risk retention provisions for ABCP programs under which the originators of assets in an ABCP conduit would retain some credit risk. Although industry members have said that most existing ABCP programs could not meet the proposed rule’s conditions, suggestions have been made to make them workable.²⁵¹

The details of the new regulatory changes are being worked out to ensure that the ABCP market can continue functioning notwithstanding additional regulation. The goal of these changes should be to improve the resiliency of the commercial paper market and enable banks, rather than MMFs, to continue acting as lenders of last resort to the market. The Fed should pursue measures to address systemic problems in the commercial paper market directly rather than trying to solve them indirectly on the backs of MMF shareholders.

²⁵⁰ *Id.* at 3-4.

²⁵¹ See Letter dated July 29, 2011, from the Investment Company Institute to federal banking regulators concerning the risk retention proposal.

V. THE FED'S MMF PROPOSALS LACK CREDENCE

A. **The Fed's Proposals Are Unsupported by Economic Research and Analysis**

Fed officials have proposed structural changes that industry experts have said would end MMFs as we know them. The loss of MMFs could dramatically affect the financial markets and the flow of credit to the economy.

Despite numerous public statements by Fed officials concerning the alleged systemic risks posed by MMFs, the Fed does not appear to have studied the impact on the financial system or the economy of its proposed structural changes. The Fed lacks expertise concerning MMFs. Statements by Fed officials do not reflect comprehensive knowledge of the operations of MMFs or their practical uses by investors in the financial markets. Nor do they reflect a detailed grasp of the regulatory framework governing MMFs under the Investment Company Act or changes adopted by the SEC in 2010 that reduce the likelihood of runs on MMFs in the event of a future financial crisis. A visit to the Fed's own web site finds little evidence of expertise or economic analysis focused specifically on MMFs.

Given the potentially dramatic changes that would ensue from the Fed's MMF proposals, it is reasonable to ask what research and analytical studies the Fed has conducted to justify its advocacy of such consequential changes. The Fed is renowned for its superb staff of research economists. One would expect to find published studies by Fed economists on such topics as "the effects on the commercial paper market if MMFs are eliminated" or "the effects on stability and concentration in the banking system if MMFs are eliminated" or "the loss of MMFs and systemic risk" or "the economic implications of eliminating MMFs."

The Fed's web site is devoid of staff studies devoted to MMFs. A recent search for Fed "staff studies" with the phrase "money market fund" produced this message: "Your search did not return any results."

The Fed publishes a list of its staff's research publications. In the 37-page list of such publications for 2010-2011, only one publication was listed with the phrase "money market fund" in the title.²⁵² As noted earlier, that study argues that sponsor support for MMFs creates moral hazard and the potential for increased systemic risk. The list of Fed staff research publications is impressive and includes papers on such topics as banking and financial institutions, econometrics and statistics, economic history, financial economics, financial markets, industrial organization, macroeconomics, microeconomics, monetary economics, monetary policy, payments systems, public economics, and real estate and urban economics.

There is no topic heading on "money market funds." Within the category of research publications under the topic of "banking and financial institutions," the following titles of staff research papers are listed:

- Alternatives for Distressed Banks during the Great Depression
- Arresting Banking Panics: Fed Liquidity Provision and the Forgotten Panic of 1929
- The Bank Lending Channel of Monetary Policy and its Effect on Mortgage Lending
- Bank Size, Lending Technologies, and Small Business Finance
- Branch Banking as a Device for Discipline: Competition and Bank Survivorship during the Great Depression
- Capital Ratios and Bank Lending
- Consumer Switching Costs and Firm Pricing: Evidence from Bank Pricing of Deposit Accounts
- Did Securitization Lead to Lax Screening? Evidence from Subprime Loans
- Distress in the Financial Sector and Economic Activity
- Does Credit Competition Affect Small-Firm Finance?
- The Domestic and International Effects of Interstate U.S. Banking
- Dynamic Factor Value-at-Risk for Large, Heteroskedastic Portfolios
- The Effects of Bank Capital on Lending: What do we Know, and what does it Mean?

²⁵² See McCabe, Patrick E. (2010). "The Cross Section of Money Market Fund Risks and Financial Crises," Finance and Economics Discussion Series 2010-51, Board of Governors of the Federal Reserve System. Apart from this paper, several papers by Fed researchers address MMFs in the context of the shadow banking system but no other paper focuses exclusively on MMFs.

- Effects of Central Bank Intervention on the Interbank Market during the Subprime Crisis
- Investment Strategies and Market Structure: An Empirical Analysis of Bank Branching Decisions
- Monetary Policy and Credit Supply Shocks
- Procyclicality of Capital Requirements in a General Equilibrium Model of Liquidity Dependence
- Profits and Balance Sheet Developments at U.S. Commercial Banks in 2009
- Quantitative Easing and Bank Lending: Evidence from Japan
- Risk-Based Regulatory Capital and Basel II
- Securitization without Risk Transfer
- Systemic Risk Contributions
- A Tale of Two Regions: Foreign-Bank Lending to Emerging Markets during the Global Crisis

Notably absent are any papers examining the Fed’s MMF restructuring concepts and their potential impact on the banking system, commercial paper issuers, corporate and municipal treasurers, pension funds, retirees, the credit markets, or monetary policy. None of the papers provides an analytical framework or theoretical basis for the Fed’s MMF proposals. None of the papers addresses the essential questions one would expect the nation’s central bank to consider before proposing action that would severely impair or eliminate an entire industry sector. None of the recent Fed staff papers, or any earlier ones, supports the elimination of the MMF industry.

Fed Chairman Bernanke had the opportunity to address the impact of the Fed’s MMF proposals on the economy during a recent Congressional hearing when he was asked “what are the risks to the economy and financial system if we were to fundamentally alter the nature of the money market fund?”²⁵³ Mr. Bernanke did not answer the question. He stated, incorrectly, “Europe doesn’t have any” and noted that

²⁵³ Hearing before the Senate Committee on Banking, Housing and Urban Affairs on The Semiannual Monetary Policy Report to the Congress, March 1, 2012, questions by Senator Charles Schumer to Fed Chairman Ben S. Bernanke, unofficial transcript of archived hearing at 107-112 minutes. A transcript of the complete exchange between Senator Schumer and Chairman Bernanke is included in the Appendix hereto.

there are many ways to structure a financial system.²⁵⁴ He said the Fed is concerned about the risk of runs on MMFs and the impression by some investors that MMFs are 100 percent safe. He said “we have to make sure that investors are aware and that we take whatever actions are necessary to protect their investments.”²⁵⁵

Fed Governor Tarullo has revealed that much of the Fed’s thinking on MMFs has come from Yale professor Gary Gorton, particularly his paper with Andrew Metrick entitled “Regulating the Shadow Banking System.”²⁵⁶ Governor Tarullo stated that more needs to be done by the Fed to focus on the “unregulated” shadow

²⁵⁴ Contrary to the implications of Mr. Bernanke’s remark, several key characteristics of the European banking system may explain why the MMF industry there is less prevalent than in the United States. Europe generally has what is referred to as a “universal” banking system under which banks historically have been allowed to engage in securities activities, in contrast to the U.S. where the Glass-Steagall Act for many years prevented banks from conducting mutual fund and other securities activities, thereby allowing a separate MMF industry to develop to meet financial needs that banks could not meet. Moreover, there was no Regulation Q in Europe limiting the ability of banks to pay interest on bank deposits and thus no need for customers to transfer their money to MMFs to obtain a market return, as in the United States. Further, in the absence of a “dual banking system” such as we have, European countries have always had a much smaller number of large banks and these typically are heavily supported by the government. See, e.g., “Moody’s Downgrades Three French Banks,” *New York Times*, Dec. 9, 2011 (“The French government has a long history of stepping in to support its banks, considering them integral to the economy. French officials have said they are ready to backstop the banks if the markets force their hand.”). Thus, with European governments in effect permanently guaranteeing large bank deposits, unlike in the United States, there is less need for a MMF alternative to uninsured bank deposits in Europe. In any event, despite these differences, MMFs do exist in Europe and hold approximately \$1.5 trillion in managed assets—more than half the size of the U.S. industry. Source: European Fund and Asset Management Association, *Monthly Industry Fact Sheet*, Jan. 2012.

²⁵⁵ Although Mr. Bernanke undoubtedly did not mean to suggest that MMFs should be guaranteed by the government, this remark suggests that he may be unaware of the substantial investor disclosures required to be made by MMFs under SEC regulations, including the following: “An investment in a money market fund is not insured or guaranteed by the FDIC or any other government agency. Although a money market fund seeks to preserve the value of your investment at \$1 per share, it is possible to lose money by investing in such a fund.” This disclosure is included in all MMF marketing materials. Investor protection regulation is under the jurisdiction of the SEC, not the Fed.

²⁵⁶ Federal Reserve Board Governor Daniel K. Tarullo, “Regulating the Shadow Banking System,” Remarks at the Brookings Panel on Economic Activity, Washington, D.C., Sept. 17, 2010. See Gary Gorton and Andrew Metrick, “Regulating the Shadow Banking System,” Oct. 18, 2010, abstract, available at SSRN.com.

banking sector and that the Gorton-Metrick paper “fits squarely within this enterprise.”

Among other things, Tarullo attributed to Gorton the insight that competition from unregulated entities is harmful to the profitability of the regulated banking sector and leads to regulatory arbitrage.²⁵⁷ In their paper, Gorton and Metrick place MMFs squarely within the shadow banking system²⁵⁸ and attribute the rise of the shadow banking system to the following:

Faced by competition from junk bonds and commercial paper on the asset side of bank balance sheets and from money-market-mutual funds on the liability side, commercial banks became less profitable and sought new profit opportunities.²⁵⁹

They purport to document the rise of shadow banking and state that it was helped by regulatory changes that, among other things, gave MMFs a competitive advantage over banks and enabled them to “capture” bank deposits:

[T]he rise of shadow banking over the last three decades [was] helped by regulatory and legal changes that gave advantages to three main institutions of shadow banking: money-market mutual funds (MMMFs) to capture retail deposits from traditional banks, securitization to move assets of traditional banks off their balance sheets, and repurchase agreements (“repo”) that facilitated the use of securitized bonds in financial transactions as a form of money.”²⁶⁰

²⁵⁷ Tarullo, *Id.* (“Where competition from unregulated entities is permitted, explicitly or de facto, capital and other requirements imposed on regulated firms may shrink margins enough to make them unattractive to investors. The result, as we have seen in the past, will be some combination of regulatory arbitrage, assumption of higher risk in permitted activities, and exit from the industry.”).

²⁵⁸ They state, “In its broadest definition, shadow banking includes familiar institutions as investment banks, money-market mutual funds, and mortgage brokers; rather old contracts, such as sale and repurchase agreements (“repo”); and more esoteric instruments such as asset-backed securities (ABS), collateralized-debt obligations (CDOs), and asset-backed commercial paper (ABCP).” Gorton and Metrick at 1.

²⁵⁹ Gorton and Metrick at 6.

²⁶⁰ Gorton and Metrick, abstract.

Thus, Gorton and Metrick subscribe to the Volcker view that MMFs emerged as “pure regulatory arbitrage” to “divert” or “capture” deposits from banks.²⁶¹

Governor Tarullo stated that the Gorton-Metrick paper has “shaped” the Fed’s understanding of the shadow banking system and contributed a proposal for dealing with it.²⁶² Fed Chairman Bernanke repeatedly has cited Professor Gorton’s work and recommended it as required reading.²⁶³ The Yale School of Management has touted Gorton’s influence on the Fed’s policy thinking.²⁶⁴

²⁶¹ See excerpts of remarks by Mr. Volcker in the Appendix, section XI.

²⁶² Tarullo remarks, *infra* (“Gary Gorton and Andrew Metrick have, in setting forth this proposal, continued to shape our understanding of the role and risks of the shadow banking system, as well as to add a specific proposal to our menu of possible responses.”).

²⁶³ See Michael Corkery, “Ben Bernanke’s Reading List,” *Wall Street Journal*, Sept. 3, 2010 (“Mr. Bernanke was asked on Thursday by the Financial Crisis Inquiry Commission what books or academic papers he recommends reading about the financial crisis and its aftermath. The Fed chief offered up four suggestions and said he would get back to the commission with more ideas. Here are Bernanke’s four suggestions: 1. Yale economist Gary Gorton’s academic paper titled “The Panic of 2007,” which looks at the pullback in the commercial-paper market in the summer of 2007 and how it had all the characteristics of a traditional bank run. Mr. Gorton’s paper was delivered at a symposium in Jackson Hole, Wyo., in August 2008.”); see also David Ignatius, “Ben Bernanke, Quiet Tiger at the Fed,” *Washington Post*, May 28, 2009 (“Bernanke recommended studies by Gary Gorton, a Yale economist who has analyzed the ways the recent panic resembled those of the late 19th century. . . his latest paper, ‘Slapped in the Face by the Invisible Hand.’”). See also “Reflections on a Year of Crisis,” Remarks of Ben S. Bernanke at the Federal Reserve Bank of Kansas City’s Annual Economic Symposium, Jackson Hole, Wyoming, Aug. 21, 2009; Statement by Ben S. Bernanke, Chairman, Federal Reserve Board, before the Financial Crisis Inquiry Commission, Sept. 2, 2010; Remarks by Ben S. Bernanke at the New York University Law School, April 11, 2007, “Financial Regulation and the Invisible Hand.”

²⁶⁴ “Faculty Insights: Fed Chairman Recommends a Paper on the Financial Crisis by Prof. Gary B. Gorton,” June 18, 2009 (“When one of the key actors in the government response to the financial crisis recommends an academic paper and endorses its thesis, it’s clear evidence that the work of the academy can inform policy. A recent paper by Gary B. Gorton . . . has been getting widespread attention. Ben Bernanke, chairman of the Federal Reserve, recommended it, during a recent interview with *Washington Post* columnist David Ignatius, suggesting its description of the roots of the economic crisis are much in line with his own understanding. . . . Asked about the response to the paper, Gorton said, ‘Central bankers and regulators seem very sympathetic to my explanation. I am following up with people at the Federal Reserve who have shown the most interest. There is plenty of research to do.’ . . . Gorton also said that many academics had been caught flat-footed in proposing ideas for policy or regulatory reform related to the crisis, because they did not study the markets that were at the core of the panic.”); http://mba.yale.edu/news_events/CMS/Articles/6888.shtml.

Yet, while Gorton and Metrick have contributed important research on the underlying causes of the financial crisis, their “proposal” for dealing with MMFs is unoriginal and not well-grounded. In fact, their proposal is nothing more than an endorsement of the recommendations of the Group of Thirty on MMFs.²⁶⁵ The Group of Thirty recommendations would require MMFs “to either pay for explicit insurance or to drop the fiction of stable value.”²⁶⁶ Gorton and Metrick state:

The central regulatory problem for MMMFs is simple: MMMFs compete in the same space as depository banks, provide an implicit promise to investors that they will never lose money (made explicit by the government in the crisis), and do not have to pay for this promise. These problems are well understood, and have been discussed for many years by academics and regulators. To solve this problem, **we adopt the specific proposal of the Group of Thirty**. Their proposal is concise enough that we quote it in full (Group of Thirty, 2009):

a. Money market mutual funds wishing to continue to offer bank-like services, such as transaction account services, withdrawals on demand at par, and assurances of maintaining a stable net asset value (NAV) at par should be required to reorganize as special purpose banks, with appropriate prudential regulation and supervision, government insurance, and access to central bank lender-of-last-resort facilities.

b. Those institutions remaining as money market mutual funds should only offer a conservative investment option with modest upside potential at relatively low risk. The vehicles should be clearly differentiated from federally insured instruments offered by banks, such as money market deposit funds, with no explicit or implicit assurances to investors that funds can be withdrawn on demand at a stable NAV.

Money market mutual funds should not be permitted to use amortized cost pricing, with the implication that they carry a

²⁶⁵ They state, “we adopt the specific proposal of the Group of Thirty.” Gorton and Metrick at 7. See Group of Thirty Group of Thirty, Financial Reform: A Framework for Financial Stability (Jan. 2009).

²⁶⁶ Gorton and Metrick, at 7.

fluctuating NAV rather than one that is pegged at US\$1.00 per share. . . .

Our only tweak on the Group-of-Thirty proposal is that we call their special purpose banks “Narrow Savings Banks” (NSBs).²⁶⁷

This “proposal”—which Fed Chairman Bernanke and Governor Tarullo acclaim—merely repeats the views of Paul Volcker, the Group of Thirty’s chairman, and other former high level Fed officials who are among the Group’s members.²⁶⁸ The Group of Thirty proposal is supported by no economic analysis whatsoever, and Gorton and Metrick provide none of their own. Instead, they state that the logic of the proposal is self-evident and the only reason it has not been adopted is because the MMF industry has lobbied to prevent it:

The logic of this proposal – the elimination of “free” insurance for MMMFs – seems powerful. So why has it not been adopted? One reason is that the \$4 trillion MMMF industry is reluctant to part with free insurance, and a \$4 trillion industry can make for a powerful lobby. A second reason is that 2010 still seems like a dangerous time to be disrupting such a large short-term credit market. We certainly are sympathetic to this second reason, but believe that any changes can be worked out now, with implementation to occur after the credit markets have recovered.²⁶⁹

Gorton and Metrick argue that MMFs benefit from an “implicit promise” by the government to guarantee MMFs in the event of a crisis and should pay for it in the same way that banks pay for deposit insurance. They state: “As long as MMMFs have implicit and free government backing, they will have a cost advantage over

²⁶⁷ Gorton and Metrick at 20-21.

²⁶⁸ In addition to Paul Volcker who chairs the Group, the Group of Thirty includes among its present and former members Fed Chairman Alan Greenspan, Fed Vice Chairman Yellen, former Fed Vice Chairman Roger W. Ferguson, Jr. and former New York Fed presidents Timothy Geithner, E. Gerald Corrigan, Anthony Solomon, and William McDonough. The Group of Thirty describes itself as a “private, nonprofit, international body composed of very senior representatives of the private and public sectors and academia.” Economist Paul Krugman is a member of the Group.

²⁶⁹ *Id.*

insured deposits.”²⁷⁰ Gorton and Metrick provide no evidence of any “implicit” government guarantee other than the Treasury’s temporary guarantee of MMFs to stem the run on MMFs after the Lehman bankruptcy. That program was not “free” and expired with no losses to the Treasury.²⁷¹ Moreover, Congress in the Emergency Economic Stabilization Act of 2008 explicitly forbade the Treasury from insuring MMFs in the future.²⁷² The Fed’s stated concern about MMFs is their supposed susceptibility to runs, indicating the Fed does not believe investors think MMFs have implicit or free insurance.

In addition, while Gorton and Metrick advocate mandatory insurance for MMFs, they do not prescribe any limit on the insured amount. Presumably, to maintain competitive equity with bank deposits, it would be necessary to impose the same limit that applies to bank deposits—\$250,000 per depositor. Any higher amount would meet with opposition from the banking industry. The American Bankers Association strongly opposed the Treasury’s initial insurance program for MMFs in 2008:

While we understand that we are in an extreme financial emergency, the program announced this morning runs the risk in the long run of profoundly changing the nature of our financial system and, specifically, undermining the nation’s banking system. The debt instruments in a money market mutual fund will pay a higher interest rate, and therefore the fund will pay a higher interest rate, than a bank deposit or short-term CD. It also appears there will be no limit on how much an individual or institution can invest in these funds. Therefore, such funds will be in a significantly superior market position to FDIC-insured bank deposits. . . .

Today’s action will undermine the role of banks during the current crisis and has the potential to have an extremely negative impact in the future. Simply put, the ability of banks

²⁷⁰ Gorton and Metrick at 7.

²⁷¹ MMFs were required to pay fees aggregating \$1.2 billion under the program.

²⁷² Emergency Economic Stabilization Act § 131, codified at 12 U.S.C. § 5236 (“The Secretary is prohibited from using the Exchange Stabilization Fund for the establishment of any future guaranty programs for the United States money market mutual fund industry.”).

to attract and keep deposits is being compromised in a profound fashion.²⁷³

Even if the banking industry acquiesced in limited federal insurance for MMFs, an amount of \$250,000 per depositor would not deter a run by institutional MMF shareholders, who led the flight to safety in 2008. These shareholders hold approximately two-thirds of all MMF assets and their average balance is \$5 million,²⁷⁴ far in excess of an insured amount that would be realistic. Even if MMFs did not exist, institutional investors would run from the financial markets in a crisis. Gorton and Metrick overlook the fact that banks themselves are vulnerable to runs by uninsured institutional depositors.²⁷⁵ Moreover, with insurance comes moral hazard.

Professors Gorton and Metrick have referred to the MMF industry as “one of the most significant financial product innovations of the last fifty years.”²⁷⁶ It thus is surprising that they would endorse such flimsy proposals that could potentially cause the demise of this important industry. More astonishing perhaps is that the Fed would embrace their ideas, and those of the Group of Thirty, with so little economic analysis of its own.²⁷⁷

²⁷³ Letter dated Sept. 19, 2008, from Edward L. Yingling, Executive Director, American Bankers Association, to Treasury Secretary Paulson and Federal Reserve Board Chairman Bernanke. See American Bankers Association Press Release, “ABA Deeply Concerned, Raises Questions on Treasury Money Market Program,” Sept. 19, 2008. The ABA posed a list of questions it said needed to be answered “immediately, before the program is finalized and any further harm is done to our banking industry and the economy.” Shortly after the ABA’s letter, the Treasury substantially cut back its temporary insurance program for MMFs.

²⁷⁴ Source: Investment Company Institute.

²⁷⁵ The run on Wachovia Bank in 2008 was a run by uninsured institutional depositors. See Testimony by Scott G. Alvarez, General Counsel, Federal Reserve Board, before the Financial Crisis Inquiry Commission, Sept. 1, 2010, *The Acquisition of Wachovia Corporation by Wells Fargo & Company*. The run on Washington Mutual also was a run by uninsured depositors. Final Report of the Financial Crisis Inquiry Commission at 365 (“In the eight days after Lehman’s bankruptcy, depositors pulled \$16.7 billion out of Washington Mutual, which now faced imminent collapse.”).

²⁷⁶ Gorton and Metrick, at 3.

²⁷⁷ As of this writing, the Fed has not proposed a mandatory insurance program for MMFs, although Chairman Bernanke endorsed such an approach in 2009. See Ben S. Bernanke, Chairman, Federal Reserve Board, “Financial Reform to Address Systemic Risk,” remarks at the Council on Foreign Relations, March 10, 2009. Fed Governor Tarullo has

B. Fed Research Does Not Support a MMF Capital Buffer as a Solution to Instability in the Commercial Paper Market

As posited earlier, the MMF capital buffer concept is intended to address Fed concerns not about the safety of MMFs but rather about the stability of the commercial paper market and its vulnerability to runs by MMFs and other risk-averse investors. Fed research does not support imposing a capital buffer on MMFs to address this problem. Rather, Fed researchers who have studied the run on ABCP have recommended that consideration be given to options that would address instability in the ABCP market directly:

The relevant policy question is how, if at all, to address the possibility that the ABCP market may be an important source of instability in the future. One option is to impose standards on liquidity support. . . . Another option would be to restrict the size of the ABCP market. Such a policy would certainly limit the potential systemic impact of the ABCP market. However, it might not be feasible, as the optimal size of the ABCP market is unknown and such a policy would likely be difficult to enforce. In addition, restricting the size of the market might crowd out efficient methods for firms to finance short-term assets. Another option proposed by Gorton (2009) for an alternative purpose of preventing destabilizing runs in the repurchase market, is to provide and require government insurance for all AAA-rated tranches of securitizations. This policy might indirectly inhibit the growth of the ABCP market, particularly programs designed to arbitrage the difference between yields on long-term, near-riskless assets and yields on short-term ABCP. Indeed, this was the main purpose of SIVs, CDOs, and securities arbitrage, segments of the ABCP market that disappeared, at least for now, during the recent turmoil. The difficulty with such a policy is the traditional moral hazard created by the provision of insurance. The insurance would have to be priced and securitization processes monitored to ensure that the resulting AAA assets indeed had little or no credit risk.²⁷⁸

voiced skepticism regarding the “narrow bank” proposal of Gorton and Metrick. See Tarullo’s comments on “Regulating the Shadow Banking System” at the Brookings Panel on Economic Activity, Sept. 17, 2010.

²⁷⁸ Covitz et al. at 30.

As discussed earlier, the Fed and other financial regulators have issued several proposals to directly address problems in the ABCP market. Further Fed research would appear desirable to address more fully how to make the ABCP market more less vulnerable. No Fed research has been published as of this writing specifically addressing the implications for the ABCP market of imposing a capital buffer on MMFs.

C. The Fed Previously Sought to Regulate MMFs in Order to Shield Banks from Competition

The credibility of the Fed's narrative and structural proposals regarding MMFs is tainted by a longstanding aversion to MMFs as evidenced by the statements of its former chairman, Paul Volcker.²⁷⁹ Mr. Volcker has long been known to harbor a deep-seated antipathy toward MMFs and his animus appears embedded in public statements by other Fed officials.

Mr. Volcker's views on MMFs were formed in the early 1980's when MMFs mushroomed as an unanticipated consequence of his monetary policy program that drove interest rates to record levels in an attempt to halt inflation.²⁸⁰ MMFs offered a market rate of return to depositors, who flocked to MMFs and withdrew large amounts from banks and thrifts when interest rates dramatically rose.²⁸¹ The Fed's Regulation Q prohibited banks and thrifts from paying any interest on checking accounts and only a comparatively small percent on savings accounts.

²⁷⁹ Some of Mr. Volcker's statements are cited in the Appendix hereto.

²⁸⁰ The prime rate reached 21.5 percent. The Fed's overriding policy objective in 1980 was to control inflation by allowing interest rates to rise to unprecedented levels. Volcker instituted a new monetary policy program based on targeting the monetary aggregates rather than interest rates which depended on an accurate measure of the components of the money supply. The Fed was uncertain how to categorize MMFs for this purpose. See Federal Reserve Bank of New York Quarterly Review, Winter 1981-82 ("In sum, the rapid growth of MMFs during the past year has raised important questions for monetary control, and the future development of this unique financial instrument—as well as other possible innovations—will require careful scrutiny in interpreting and using the monetary aggregates as intermediate targets."). The Volcker monetary targeting approach was problematic and ultimately abandoned.

²⁸¹ MMFs grew from \$45 billion in assets in 1979 to over \$200 billion in 1982.

The loss of deposits and the stress of high interest rates ultimately devastated the savings and loan industry, which held fixed-rate 30-year mortgages funded by savings accounts that by law could pay only 5-1/4 percent interest, culminating in a crisis that resulted in what was then the largest ever taxpayer bailout of the financial services industry.²⁸² The banking industry itself suffered weakness and failures from the disintermediation and instability resulting from Volcker's monetary policy program.²⁸³

In an effort to thwart the growth of MMFs, Volcker imposed a temporary 15 percent reserve requirement on MMFs, relying on questionable legal authority under the Credit Control Act of 1969.²⁸⁴ The purpose of the reserve requirement was to protect banks from competition from MMFs, even though MMFs served the Fed's goals by reducing the availability of deposits to fund excessive lending activity by banks. The Fed gave the following explanation for its action:

As short-term interest rates rose to extraordinary levels in late 1979 and early 1980, the assets of money market mutual funds

²⁸² See Timothy Curry and Lynn Shibut, "The Cost of the Savings and Loan Crisis: Truth and Consequences," FDIC Review, Dec. 2000, at 26 ("The savings and loan crisis of the 1980s and early 1990s produced the greatest collapse of U.S. financial institutions since the Great Depression. Over the 1986–1995 period, 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."). This paper attributes the thrift crisis to, among other things, "high and volatile interest rates during the late 1970s and early 1980s, which exposed thrifts to late interest-rate risk (caused by a mismatch in duration and by interest-rate sensitivity of assets and liabilities)." *Id.* at 27.

²⁸³ As described below, some economists, including Federal Reserve Board governors, viewed Volcker's program as misguided, unnecessarily harsh, and detrimental to the economy.

²⁸⁴ 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].").

(MMMFs) and similar creditors climbed sharply. For example, MMMF assets increased almost \$15 billion in the first two months of 1980. **This unprecedented growth was diverting funds from thrift institutions and smaller commercial banks. . . .The aim of the special deposit requirement was to restrain the growth of money market funds** by reducing the returns on marginal increases in their shareholdings, and thereby to provide some greater assurance of the continued availability of funds to worthy borrowers who have access to only a limited range of credit sources while restraining flows of credit to other borrowers.²⁸⁵

The Fed exempted bank collective trust funds, which function like MMFs, from the 15 percent reserve requirement.

In testimony before Congress, Mr. Volcker stated that the growth of MMFs had “strong implications for the competitive positions of financial institutions, the cost and availability of credit to certain borrowers, and the implementation of monetary policy.”²⁸⁶ He stated, “I don’t think we can take lightly the erosion of the competition position of our banks and thrifts.”²⁸⁷

Volcker complained that MMFs “could result in potentially serious complications for the conduct of monetary policy” (particularly his new policy approach that focused on monetary aggregates).²⁸⁸ He noted that reserve requirements “are a key part of the apparatus for the conduct of monetary policy, and presumably will be maintained permanently.”²⁸⁹ The absence of reserve requirements on MMFs, he argued, gave them “an artificial and continuing competitive advantage, so long as interest is not paid on reserve balances.”²⁹⁰ He noted that two regulations put banks

²⁸⁵ Federal Reserve Board Press Release dated May 12, 1980. Total MMF assets declined more than \$1.0 billion in the month following implementation of the 15 percent reserve requirement. *Id.*

²⁸⁶ Statement by Paul A. Volcker before a subcommittee of the House Committee on Banking, Finance and Urban Affairs, June 25, 1981.

²⁸⁷ *Id.*

²⁸⁸ *Id.*

²⁸⁹ *Id.* As noted below, reserve requirements ceased to be a major tool of monetary policy.

²⁹⁰ *Id.*

and thrifts at a competitive disadvantage relative to MMFs—the prohibition of interest payments on demand deposits and the holding of noninterest earning reserves against transaction balances and nonpersonal time deposits.

To address these concerns, Volcker urged Congress to give the Fed authority to impose reserve requirements on MMFs. But he said, unlike banks, MMFs should not be given access to Federal Reserve services or federal deposit insurance. Moreover, Volcker opposed giving banks authority to sponsor and sell MMFs.²⁹¹

Congress did not do as Volcker recommended. MMFs were not made subject to reserve requirements. Indeed, shortly after Volcker pressed for reserve requirements on MMFs, the Fed substantially reduced reserve requirements on banks, stopped using reserve requirements as a major monetary policy tool, and abandoned the Volcker policy of targeting money aggregates, which had proven ineffective.²⁹² Instead of restricting MMFs, Congress eliminated the Regulation Q prohibition on the payment of interest on non-business transaction accounts at banks and the Fed interpreted the Glass-Steagall Act to permit a broad expansion of banks into the capital markets. Moreover, the Fed allowed banking organizations to sponsor and sell MMFs, and they became major sponsors of MMFs (currently holding approximately one-half of total assets in MMFs).²⁹³ In the Dodd-Frank Act, Congress repealed the remaining prohibition on payment of interest on business checking accounts by banks. In 2006,

²⁹¹ Statement by Paul A. Volcker before the Senate Committee on Banking, Housing and Urban Affairs, Oct. 29, 1981 at 22 (“the Board feels strongly that authority to permit banks to sponsor and sell money market mutual funds should not be provided at this time, and that such authority would in fact weaken both our institutional structure and monetary control.”).

²⁹² Rather than reserve requirements, the Fed’s principal monetary policy tool has been the purchase and sale of government securities through the Federal Reserve Bank of New York. As of January 2012, required reserves totaled only approximately \$70 billion on a monetary base of \$2.04 trillion. Federal Reserve Statistical Release H.3.

²⁹³ Indeed, the Fed by then already had effectively authorized such activities by allowing bank holding companies to sponsor, organize, control, and act as investment adviser to closed-end investment companies. The Fed’s ruling was upheld by the U.S. Supreme Court in *Board of Governors of the Federal Reserve System v. Investment Company Institute*, 450 U.S. 46 (1981). The Fed in 1983 allowed bank holding companies to engage in the public sale of MMFs when it authorized BankAmerica Corporation to acquire Charles Schwab Co., upheld by the U.S. Supreme Court in *Securities Industry Association v. Board of Governors*, 468 U.S. 207 (1984).

Congress authorized the Fed to pay interest on bank excess reserves held with the Fed.²⁹⁴

Thus, all of the concerns regarding MMFs that Mr. Volcker raised when he was chairman of the Fed in the 1980's ultimately became moot or irrelevant or were otherwise addressed. Nevertheless, thirty years later, Mr. Volcker still believes that MMFs are an aberration in the financial system that divert deposits from banks and contribute to instability in the financial system.²⁹⁵

Mr. Volcker has referred to MMFs as “pure regulatory arbitrage” and as “shadow banks” and questioned their relevance in the marketplace:

These MMMFs are truly hidden in the shadows of banking markets. The result is to divert what amounts to demand deposits from the regulated banking system. . . . The time has clearly come to harness money market funds in a manner that recognizes both their structural importance in diverting funds from regulated banks and their destabilizing potential.

* * * * The question is we've got an institution here which is vulnerable to a crisis. We had a big crisis, it turned out to be terribly vulnerable. There was no backstop, no capital, no official assistance available. Most unusual measures were taken. You know, whoever thought that the Exchange Stabilization Fund, which I used to run, would be used to support domestic money market funds? I mean, that is an indication that something's the matter. And what happened to the commercial paper market upon which they were all dependent? They all use this great sophisticated local commercial paper, it wasn't worth a damn in the midst of a crisis. Now, I don't care how much a company's looked at it and was careful. You had a structural problem here of an organization that had no backstop, had no capital, had no official liquidity support. So it had to run from one extraordinary action to safeguard it to another, and you asked, **“What is the public good that this institution is providing**

²⁹⁴ Financial Services Regulatory Relief Act of 2006.

²⁹⁵ See Report of the Group of Thirty, Financial Reform: A Framework for Financial Stability (Jan. 2009).

that makes it worthwhile to run a big risk, vulnerability to a crisis?”

I happened to be there at the birth of money market funds. It was pure regulatory arbitrage. Banks could not pay interest on demand deposits. So there was a gap in the market, which was filled by money market funds saying, “We’ll pay you interest, and we’ll provide a demand deposit.” Now, you ask yourself whether that is -- the relevance of that at this point. **It is a shadow bank. And do we need shadow banks, or are we making real banks?**²⁹⁶

Although other members of the Federal Reserve have not articulated so openly the degree of hostility to MMFs voiced by Mr. Volcker, the Fed’s early experience with MMFs may suggest a longstanding institutional bias against MMFs and reveal how the Fed’s policy aims and predisposition to support banks may skew its thinking on broader financial reform proposals. Fed staff members have stated that there was “consternation” at the Fed about difficulties at MMFs following the Lehman bankruptcy and that there has been “considerable consternation” about MMFs “for years” at the Fed.²⁹⁷ Certainly an aversion to MMFs and a dogmatic belief that MMFs are inherently unstable are reflected in the MMF structural changes recently advanced by the Fed.

²⁹⁶ Remarks of Paul Volcker at the Securities and Exchange Commission Roundtable on Money Market Funds and Systemic Risk, May 10, 2011, unofficial transcript. Available at <http://www.sec.gov/spotlight/mmf-risk/mmf-risk-transcript-051011.htm>. At the time, Mr. Volcker wrote, “In a period of high interest rates, investors obviously have found the yield and liquidity characteristics of the funds to be superior to deposits for many purposes—a disparity that reflects to a substantial extent the more restrictive regulations faced by banks and thrifts. . . . Even when the ‘deregulatory’ process is completed, depository institutions still will operate under much more pervasive regulations than money funds, including reserve requirements on transactions and nonpersonal time deposits. . . . In the still uncertain financial environment we face, a substantial diversion of flows from depository institutions to money funds could recur, and, indeed, except for the past few weeks, the money funds have remained in a relatively strong competitive position.” Letter dated Aug. 22, 1980 from Paul A. Volcker to Jim Leach, Chairman of the House Banking Committee.

²⁹⁷ See Testimony of Michael Palumbo, Associate Director, Division of Research and Statistics, Federal Reserve Board, and Patrick McCabe, Senior Economist, Division of Research and Statistics, Federal Reserve Board, before the Financial Crisis Inquiry Commission, Sept. 28, 2010, audiotape at 1:17:15.

D. The Fed Has Been Wrong Before

Apart from a possible institutional bias and paucity of expertise concerning MMFs, the Fed's credibility on MMF regulation must be viewed in light of a history of policy errors that have had serious consequences for the financial system and the economy. While no one expects the Fed to be perfect, it is useful to be reminded now and again that the Fed is fallible. The Fed's record of major policy failings suggests that the Fed's proposals to restructure MMFs should not be accorded unquestioning deference. The Fed has been wrong before, as Fed members would be among the first to admit.

Perhaps the biggest indictment in the recent crisis is the Fed's failure to see it coming.²⁹⁸ Once it arrived, the Fed took actions that economists and others have said exacerbated and prolonged the crisis. The Fed's erratic lender of last resort policy and failure to prevent Lehman's bankruptcy arguably was the single most devastating shock.²⁹⁹ Fed Chairman Bernanke has admitted that the Fed did not fully anticipate

²⁹⁸ Former Fed Chairman Alan Greenspan has testified that he was in a state of "shocked disbelief" that the crisis developed so severely. Statement by Alan Greenspan before the House Committee of Government Oversight and Reform, Oct. 23, 2008 ("This crisis . . . has turned out to be much broader than anything I could have imagined."). See also Edmund L. Andrews, "Bernanke Concedes Fed Lapses," *New York Times*, Dec. 4, 2009 (quoting testimony by Fed Chairman Bernanke before the Senate Committee on Banking, Housing, and Urban Affairs: "I did not anticipate a crisis of this magnitude.").

²⁹⁹ Alan Greenspan has stated, "The Lehman default was one of the most extraordinary economic events in global financial history. . . . A once in a century or 80 year event." Remarks of Alan Greenspan before the Council on Foreign Relations, Oct. 15, 2009. Greenspan also stated, "The bankruptcy of Lehman Brothers in September 2008 precipitated what, in retrospect, is likely to be judged the most virulent global financial crisis ever." Alan Greenspan, "The Crisis," April 15, 2010, available at www.brookings.edu/~media/Files/.../spring2010_greenspan.pdf.

Academics who have studied the crisis have pointed to the Fed's erratic policy as well as other actions as causal elements in the crisis. See, e.g., John B. Taylor, "Getting Off Track: How Government Actions and Interventions Caused, Prolonged, and Worsened the Financial Crisis," Hoover Inst. Press Publication, 2009, at 61 ("I have provided empirical evidence that government actions and interventions caused, prolonged, and worsened the financial crisis. They caused it by deviating from historical precedents and principles for setting interest rates that had worked well for twenty years. They prolonged it by misdiagnosing the problems in the bank credit markets and thereby responding inappropriately, focusing on liquidity rather than risk. They made it worse by supporting certain financial institutions and their creditors

the impact of the Lehman bankruptcy on the short-term credit markets.³⁰⁰ Mr. Bernanke has acknowledged that the Fed did not anticipate the depth and scope of the crisis and thus did not take measures that might have lessened the impact of the crisis or averted it altogether.³⁰¹ The Lehman Brothers bankruptcy examiner testified to Congress that the Fed failed to take steps with the SEC that might have averted the catastrophic failure of Lehman.³⁰²

but not others in an ad hoc way, without a clear and understandable framework. Although other factors were certainly at play, those government actions should be first on the list of answers to the question of what went wrong.”).

³⁰⁰ See Report of the Financial Crisis Inquiry Commission at 339. Mr. Bernanke nevertheless maintains that the Fed lacked legal authority to rescue an insolvent firm. See discussion of the controversy concerning the Fed’s Lehman decision in section II.D supra. See Ben S. Bernanke, Chairman of the Federal Reserve Board, speech before a conference co-sponsored by the Center for Economic Policy Studies and the Bendheim Center for Finance, Sept. 24, 2010 (“the regulators insufficiently anticipated the risk that such runs might occur. . . . the problem was the failure of both private- and public-sector actors to recognize the potential for runs in an institutional context quite different than the circumstances that had given rise to such events in the past.”).

³⁰¹ Chairman Bernanke has acknowledged, for example, the Fed’s failure to prevent subprime mortgages from destabilizing the financial system: “[W]e’ve acknowledged that we didn’t do enough to prevent the subprime lending crisis. . . . When the subprime mortgages began to go bad, a number of us, like myself and Paulson, were wrong in saying that this was a contained problem.” Statement of Ben S. Bernanke, Chairman, Federal Reserve Board, before the Financial Crisis Inquiry Commission, Transcript dated Nov. 17, 2009, at 9-10. Mr. Bernanke has acknowledged that the Fed did not fully understand the vulnerability of the wholesale funding markets to contagion. *Id.* at 33-34. Mr. Bernanke acknowledged that “[u]nfortunately, regulators and supervisors did not identify and remedy many of those [bank risk management] weaknesses in a timely way.” Ben S. Bernanke, Chairman, Federal Reserve Board, “Financial Regulation and Supervision after the Crisis: The Role of the Federal Reserve,” Speech at the Federal Reserve Bank of Boston, Oct. 23, 2009. See also Chairman Bernanke’s College Lecture Series: The Federal Reserve and the Financial Crisis, Part 2, March 22, 2012, videotape at 49 minutes (Fed did not adequately monitor risk-taking by banking organizations).

³⁰² Statement by Anton R. Valukas, Examiner, Lehman Brothers Bankruptcy, before the House Committee on Financial Services, “Public Policy Issues Raised by the Report of the Lehman Bankruptcy Examiner,” April 20, 2010 (“But what is clear is that had the government acted sooner on what it did or should have known, there would have been more opportunities for a soft landing. The markets might have been spared the turmoil of Lehman’s abrupt failure. What is clear is that the regulators were not fully engaged and did not direct Lehman to alter the conduct we know in retrospect led Lehman to ruin.”).

A number of critics have pointed to flawed monetary policy as a causal element in the recent financial crisis.³⁰³ Recently released transcripts of the Federal Reserve Open Market Committee suggest that Fed officials “did not fully understand the basic mechanics of the economy” as the housing market began to implode in advance of the financial crisis.³⁰⁴ If, as the transcripts suggest, the Fed failed to grasp the economic implications of the housing bubble and the true state of the financial markets, it is legitimate to ask how well the Fed understands the mechanics of MMFs and the economic implications of its MMF regulatory proposals.

Economists have studied the Fed’s role in other financial and economic crises and found the Fed’s actions questionable. Some critics believe the Volcker monetary policy program in the 1980s “pushed the economy off a cliff” and created unnecessary economic hardship:

The economy collapsed....Within three months, the Gross National Product would shrink by 10 percent—the sharpest recession in thirty-five years. For a time, it looked like a free-fall descent. The Federal Reserve was as surprised as anyone else....³⁰⁵

³⁰³ See, e.g., Anna J. Schwartz, “Origins of the Financial Markets Crisis of 2008,” Chapter 3 in *Verdict on the Crash: Causes and Policy Implications*, edited by Philip Booth, Institute of Economic Affairs, 2009. See also John B. Taylor, “Getting Off Track: How Government Actions and Interventions Caused, Prolonged, and Worsened the Financial Crisis,” Hoover Inst. Press Publication, 2009 at 45-46 (“The failure to diagnose the financial crisis early on as mainly due to increased risk rather than to liquidity is a key reason that the policy responses were inappropriate and that the crisis was prolonged. . . . Ironically, during the Great Depression . . . there was a liquidity shortage, and the Fed did not provide liquidity. . . . In this crisis the Fed did provide liquidity, but the problem was not a shortage of liquidity—the doctor prescribed the wrong treatment.”).

³⁰⁴ *New York Times*, “In Fed Officials’ 2006 Meetings, No Deep Worry on Housing,” Jan. 12, 2012 (“The transcripts of the Fed’s Open Market Committee meetings in 2006, released after a standard five-year delay, suggest that some of the nation’s pre-eminent economic policy makers did not fully understand the basic mechanics of the economy that they were charged with supervising. The problem was not a lack of information; it was a lack of comprehension, born in part of their deep confidence in models that turned out to be broken.”). See also *Wall Street Journal*, “Little Alarm Shown at Fed At Dawn of Housing Bust,” Jan. 13, 2012.

³⁰⁵ William Greider, *Secrets of the Temple: How the Federal Reserve Runs the Country*, Simon and Schuster, 1987, at 185.

Nothing like this had ever occurred before....At the Fed, the harried governors were . . . trying to figure out exactly what they had done....³⁰⁶

“The darned economy just fell off the cliff.”³⁰⁷

“Every time we put out a regulation to try to take care of one problem, we would find that we had created two or three others in the process.”³⁰⁸

A review of the FOMC transcripts from that period shows that the Fed had a muddled understanding of the forces that were destabilizing the economy and underestimated the impact of its policy actions using the new monetary policy techniques introduced by Volcker. The Volcker monetary policy experiment was abandoned by the Fed within a short time. The program of credit controls implemented by the Fed was reversed within a matter of months.³⁰⁹ Although Volcker is credited with “taming inflation,” critics believe his program exacted overly severe and unnecessary costs on the economy.

Of course, the Fed’s worst policy misjudgments occurred during the Great Depression, which reputable economists believe was caused by the Fed’s failure to support the financial system at critical junctures.³¹⁰ Every student of economic history

³⁰⁶ Greider at 187.

³⁰⁷ Greider at 187, quoting Fed Vice Chairman Frederick Schultz.

³⁰⁸ Alan H. Meltzer, *A History of the Federal Reserve*, Vol. 2, Book 2, 1970-1986, at 1051, n. 53, quoting Fed Vice Chairman Frederick Schultz.

³⁰⁹ The Fed’s Vice Chairman told Congress: “In the end the credit controls appeared to add to the volatility in financial markets and the economy in 1980, and in some ways, by distorting underlying economic and financial conditions, made sound fiscal and monetary policies more difficult to formulate. In addition, the numerous practical problems encountered in implementing the program tended to demonstrate the essentially arbitrary nature of governmental direction of credit decisions and the burdens imposed by the controls.” Statement by Preston Martin, Vice Chairman, Federal Reserve Board, Before the House Committee on Banking, Finance and Urban Affairs, July 15, 1982.

³¹⁰ See Milton Friedman and Anna P. Schwartz, *Monetary History of the United States: 1863-1960*. See also remarks by Governor Ben S. Bernanke at the Conference to Honor Milton Friedman, University of Chicago, Chicago, Illinois, November 8, 2002, “On Milton Friedman’s Ninetieth Birthday.”

knows that policy actions of the Fed exacerbated the Great Depression. Professor Meltzer has criticized the Fed's "absence of basic economic understanding":

The economies of the United States and much of the rest of the world became victims of the Federal Reserve's adherence to an inappropriate theory and the absence of basic economic understanding.³¹¹

The Great Depression was mainly a monetary event in two senses. Monetary policy could have mitigated or prevented the decline but failed to do so. A different set of Federal Reserve policy actions could have avoided the severe deflation and reduced the depth and severity of the economic decline. In this sense the Great Depression was a response to monetary policy.³¹²

So certain was the System about the correctness of its actions and its lack of responsibility for the collapse that I have found no evidence the Board undertook an official study of the reasons for the policy failure. . . . Failure to act during the Great Depression was the Federal Reserve's largest error, but far from its only one. . . .³¹³

Professor Meltzer is not alone in his criticism. Milton Friedman and Anna Schwartz drew the same conclusion in their seminal work, *Monetary History of the United States, 1863-1960*. Fed Chairman Ben Bernanke himself has agreed with Friedman and Swartz and laid responsibility for the Great Depression at the feet of the Fed. In a speech honoring Milton Friedman on his 90th birthday, Bernanke made this concession:

The brilliance of Friedman and Schwartz's work on the Great Depression is not simply the texture of the discussion or the coherence of the point of view. Their work was among the first to use history to address seriously the issues of cause and effect in a complex economic system, the problem of identification. . . .

³¹¹ Meltzer, 321.

³¹² Meltzer, 389.

³¹³ Meltzer at 727-31.

For practical central bankers, among which I now count myself, Friedman and Schwartz's analysis leaves many lessons. What I take from their work is the idea that monetary forces, particularly if unleashed in a destabilizing direction, can be extremely powerful. . . .

Let me end my talk by abusing slightly my status as an official representative of the Federal Reserve. I would like to say to Milton and Anna: **Regarding the Great Depression. You're right, we did it. We're very sorry. But thanks to you, we won't do it again.**³¹⁴

Chairman Bernanke, who has studied in depth the role of the Fed during the Great Depression, has said openly on other occasions that Fed policies exacerbated that epoch in U.S. economic history:

The Fed's failure to fulfill its mission was, again, largely the result of the economic theories held by the Federal Reserve leadership. * * * * By allowing persistent declines in the money supply and in the price level, the Federal Reserve of the late 1920s and 1930s greatly destabilized the U.S. economy and, through the workings of the gold standard, the economies of many other nations as well.³¹⁵

The Fed's bank regulatory policies are subject to ongoing review and criticism by Congress and others. With the benefit of hindsight, they often are seen as misguided. The Fed's Regulation Q, for example, which for many years prohibited banks from paying interest on deposits, today is seen as an anti-competitive regulation that caused long-term detriment to the banking industry. Two mistakes that may have contributed to the recent crisis were the Fed's efforts to ensure that credit default swaps were not regulated by the Commodity Futures Trading Commission³¹⁶ and its arrangement of an industry rescue of Long-Term Capital Management which some

³¹⁴ Remarks by Federal Reserve Governor Ben S. Bernanke at the Conference to Honor Milton Friedman, University of Chicago, Chicago, Illinois, November 8, 2002, "On Milton Friedman's Ninetieth Birthday."

³¹⁵ Remarks by Federal Reserve Governor Ben S. Bernanke at the H. Parker Willis Lecture in Economic Policy, Washington and Lee University, Lexington, Virginia, March 2, 2004, Money, Gold, and the Great Depression.

³¹⁶ See Report of the Financial Crisis Inquiry Commission, at 45-51.

have said created an expectation of future Fed bailouts of “too-big-to-fail” financial institutions.³¹⁷ Years from now, economic historians also may fault the Fed’s interpretations of the Glass-Steagall Act in the 1980s and 1990s which allowed the traditional banking system to transmogrify into the shadow banking system.³¹⁸

The lesson from history is that, while the Fed does not intend to harm the financial system or the economy, its policies often have had unexpected results that greatly worsened financial and economic conditions at critical junctures. Because of the enormous power of the Fed, it has the capacity to cause enormous damage. Accordingly, its proposals for financial restructuring must be taken seriously and given close scrutiny. The price of the Fed being wrong can be very high for the financial system and the economy.

VI. CONCLUSION

The Fed’s restructuring proposals for money market funds suggest that the Fed indeed is aiming to “shoot the messenger” rather than the real source of systemic risk that destabilized the financial system in 2007 and 2008. Whether motivated by a desire to improve financial stability, gain regulatory control over MMFs, protect banks from competition from MMFs, or deflect blame for the financial crisis, the Fed has targeted an industry that was not the cause of the crisis.

The Fed’s restructuring proposals likely would severely impair or destroy MMFs. The Fed thus would eliminate the principal means through which pension funds, corporations, municipalities, and individual investors invest their cash and retirement assets safely and efficiently in the capital markets. This paper has shown that the Fed’s proposals are misguided and unsound.

³¹⁷ See Roger Lowenstein, “When Genius Failed: The Rise and Fall of Long-Term Capital Management,” (2000) (“Alan Greenspan freely admitted that by orchestrating a rescue of Long-Term [Capital Management], the Fed had encouraged future risk takers and perhaps increased the odds of a future disaster. “). See also Joseph G. Haubrich, “Some Lessons on the Rescue of Long-Term Capital Management,” Federal Reserve Bank of Cleveland, Policy Discussion Paper No. 19, April 2007.

³¹⁸ See Appendix hereto.

The idea that the Fed is out to eliminate or marginalize MMFs obviously has disturbing implications. If true, it would suggest not only an overreach of regulatory power but disregard for the integrity of the financial markets and contempt for free market capitalism. A government agency that can threaten and potentially succeed in destroying an entire industry—particularly one as important as MMFs—is dangerous and inimical to the principles underlying our democracy.

For that reason, one must hope that the Fed is not on a deliberate mission to “kill” or maim the MMF industry. Fed officials certainly would deny that to be the case. Government agencies with the professionalism and stature of the Federal Reserve Board simply do not violate the public trust in that way.

At the same time, it may be presumed that the Fed did not intend to violate the public trust by pursuing policies that caused or exacerbated the Great Depression and other crises including, as some have argued, the most recent one. History shows that the central bank has made monumental policy and regulatory errors during the almost 100 years of its existence, some of which it admits. These errors have been exceedingly costly to the financial system and the economy. Indeed, as suggested in the Appendix, it may be wondered with the benefit of hindsight whether the Fed and other banking regulators were wise to adopt interpretations of the Glass-Steagall Act that permitted banking organizations to engage in asset-backed commercial paper and other securitization activities that give rise to what they now call the “shadow banking system.” Given the Fed’s misjudgments in the areas of its primary monetary expertise and authority, it may be questioned whether the central bank should be dictating regulatory and policy changes in areas where it has no expertise or direct authority, as in the case of MMFs which are regulated by the SEC.

This paper shows that, while the stated reason for the Fed’s current focus on MMFs is to enhance their resiliency in the name of eliminating systemic risk, the Fed’s underlying concern is the vulnerability of banks to instability in the commercial paper market and competition from MMFs. This paper shows that the Fed’s narrative on MMFs is misleading in key respects. MMFs are not “susceptible to runs” and a run on MMFs was not the fundamental cause of the financial crisis. Rather, risk-averse investors lost confidence in the bank ABCP market when the housing market

imploded. They withdrew from MMFs that invested in ABCP and sought safety in MMFs that invested primarily in U.S. government securities. MMFs' refusal to roll over ABCP meant that bank sponsors had to stand behind their ABCP, creating pressure on bank capital. Banking regulators, who had reduced the capital levels required for bank ABCP activities, feared that bank capital would prove inadequate under such demands at a time when banks were already severely stressed.

The Fed's narrative adopts the fiction that MMFs, as part of the "unregulated" shadow banking system, created instability that caused the financial crisis. In fact, the source of the instability was the regulated banking system itself operating under the supervision of the Fed. The bank ABCP market was the source of systemic risk, not MMFs.

The Appendix that follows adds further detail to the analysis of this paper. It expands on the view that banks and their affiliates constitute the real "shadow banking system" and argues that MMFs are the equivalent of "depositors" of the "shadow" banks. It suggests that, to the extent that bank asset-backed commercial paper provides a useful and cost-effective means of financing business activity, MMFs offer efficiencies that can assist in this important role while providing a much needed service to investors that banks cannot provide.

The Fed's proposals effectively would punish risk-averse MMF investors for their prudent behavior during the financial crisis and force them to subsidize banks and the shadow banking system. Any regulation that prevents MMFs and their shareholders from acting in a risk-averse manner seems a perverse way of preventing systemic risk. It would be far more productive for the Fed to encourage MMFs than to thwart them.

APPENDIX

VII. INTRODUCTION

The following discussion supports the central theme set forth in the body of this paper—namely, that the Fed’s focus on MMFs is misguided and that vulnerability in the bank asset-backed commercial paper market sparked the financial crisis, not MMFs. The Fed has fostered an image of MMFs and ABCP as part of an unregulated “shadow banking system” that destabilized the banking system when in fact, as shown below, the shadow banking system consists of banks and their affiliates operating subject to supervision by the Fed and other banking regulators. ABCP activities are an integral part of the regulated banking system. MMFs play the role of “depositors” in the shadow banking system and assist in keeping the credit markets fluid. The shadow banking system has positive features that MMFs can support. MMFs do not divert deposits away from banks but rather offer a service that banks cannot provide by offering a high-quality diversified investment vehicle that is safer for large deposits than banks.

VIII. BANKS AND THE COMMERCIAL PAPER MARKET

The commercial paper market provides an efficient means by which businesses, including financial institutions themselves, can finance their short-term credit needs. Historically, the commercial paper market arose as a means by which corporations could access the capital markets directly as a cost-effective financing alternative to bank loans. In recent years, financial institutions have issued most of the commercial paper, much of it to finance residential mortgage loans as well as other operations.

Commercial paper is an unsecured promissory note issued for a specific dollar amount with maturity on a specific date, typically 30 days. Commercial paper is a security for purposes of the federal securities laws but is exempt from registration with the SEC if it is short-term and used to finance current operations, such as to meet payrolls, finance inventory, or manage receivables or cash flow.

A large percentage of commercial paper has been in the form of asset-backed commercial paper (“ABCP”), most of it issued by bank-sponsored conduits. ABCP is created when banks package loans and consumer receivables generated by themselves or their customers into securitization vehicles, which then issue securities backed by the assets to investors. ABCP is perhaps the most prominent example of securitization whereby banks “securitize” their assets for sale to investors.

This Appendix shows how the commercial paper market is an element of the banking system, not part of a separate “shadow banking” system distinct from banks. It also presents further evidence of a “run” on ABCP that commenced the financial crisis.

A. Banks Dominate the Commercial Paper Market

In 2007, when trouble first appeared in the commercial paper market, the majority of U.S. commercial paper consisted of ABCP. Of the total \$1.97 trillion in outstanding commercial paper in January of 2007, 57 percent was ABCP. Of the remaining commercial paper, 35 percent was issued by financial institutions for their own funding purposes. Only 5.7 percent was commercial paper issued by nonfinancial corporations.³¹⁹ By comparison, Treasury bills totaled \$950 billion.

Banks are the main sponsors of ABCP programs. Federal banking regulators consider a bank to be the “sponsor” of an ABCP program if it:

- establishes the program;
- approves the sellers permitted to participate in the program;
- approves the asset pools to be purchased by the program;
- or administers the program by monitoring the assets, arranging for debt placement, compiling monthly reports, or ensuring compliance with the program documents and with the program’s credit and investment policy.³²⁰

³¹⁹ See Marcin Kacperczyk and Philipp Schnabl, “When Safe Proved Risky: Commercial Paper During the Financial Crisis of 2007-2008,” *Journal of Economic Perspectives*, Vol. 24, No. 1 (Winter 2010) at 30.

³²⁰ BHC Supervision Manual § 2128.03.3 n. 6.

JPMorgan Chase Bank, for example, is a sponsor of ABCP. The bank has described its ABCP activities as a major part of its services to its banking customers:

JPMorgan Chase acts as administrator and as the primary liquidity and program support provider for three ABCP conduit programs, and has been a leading administrator of ABCP conduits since 1988. Our ABCP conduits provide an important source of financing for JPMorgan Chase customers, who utilize the financing they receive from the conduits for their working capital needs, including payroll, financing inventory and providing financing to consumers and small businesses. Since inception, the JPMorgan Chase ABCP conduits have provided more than \$303 billion in financing to JPMorgan Chase customers; as of May 30, 2011, the JPMorgan Chase ABCP conduits had approximately \$20 billion ABCP outstanding and approximately \$31 billion in outstanding commitments to its customers.

Each transaction funded by the JPMorgan Chase ABCP conduits includes a liquidity facility covering 100% of the ABCP issued by the conduit in connection with the underlying transaction. JPMorgan Chase currently provides all of the transaction specific liquidity facilities to the conduits (at times, a small percentage has been provided by other financial institutions). In addition, JPMorgan Chase provides a letter of credit to each conduit, sized in an amount for each conduit that equals or exceeds 5% of such conduit's outstanding ABCP, that can be drawn on to repay ABCP in the event that funds from the liquidity facilities or collections from the receivables pools are insufficient to provide for timely payment of ABCP.³²¹

Other major banks similarly provide ABCP services to their customers. As described in Fed research papers, banks invented ABCP to earn fees and provide off-balance sheet lending as a way of reducing the amount of capital they were required to hold under the Basel framework:

The development of the asset-backed sector of the CP market arose from several factors. U.S. banking organizations saw an opportunity to generate fee income from potential participants

³²¹ Letter dated July 14, 2011, from JPMorgan Chase & Co. to the Federal Reserve Board and other banking agencies concerning the agencies' risk retention proposal.

in their programs—many of which were the same investment-grade firms that they had lost as loan customers to the CP market. These banking organizations also became more familiar with asset securitization. This similarity resulted, in part, from increased market and regulatory pressure to increase their capital ratios. Asset securitization, and asset-backed CP in particular, permitted banks to channel would-be borrowers to funding off of bank balance sheets.

Another factor was that financial markets became increasingly familiar with, and thus more willing to accept, programs that required structuring, such as those with credit guarantees. Dealers saw opportunities to market asset-backed programs to companies seeking to increase liquidity or to reduce leverage, regardless of size or rating. Moreover, they already had proved successful in marketing lower-rated firms to the CP market via guaranteed programs and realized that a pool of potential business existed in companies that were too small to tap the CP market through their own guaranteed programs. Thus, banking organizations formed bank-advised asset-backed programs, relying on dealers.³²²

* * * * The early years of the CP market were dominated by issuers in the nonfinancial sectors of the economy, including transportation and utility companies, who borrowed by issuing CP to wealthy individuals, other businesses, and financial institutions. By the twentieth century, as the demand for durable goods rose and consumers began purchasing items on credit, the CP market became dominated by financial issuers. The rise of MMFs during the 1970s boosted the growth of CP by (indirectly) allowing small investors access to CP investments. During the 1980s, the CP market began to develop into its current form, particularly with the creation of the asset-backed commercial paper (ABCP) conduit.³²³

³²² Anderson, Richard G., and Gascon, Charles S., “The Commercial Paper Market, the Fed, and the 2007-2009 Financial Crisis,” *Federal Reserve Bank of St. Louis Review*, November/December 2009 at 599-600, *citing* Mitchell A. Post, “The Evolution of the U.S. Commercial Paper Market Since 1980,” 78 *Federal Reserve Bulletin* 880-91 (Dec. 1992). Many of the dealers were, or became, affiliates of banks.

³²³ See Anderson and Gascon at 539. See also Tobias Adrian Tobias Adrian, Karin Kimbrough, and Dina Marchioni, *The Federal Reserve’s Commercial Paper Funding Facility*, Federal Reserve Bank of New York Economic Policy Review, May 2011.

The Fed's BHC Supervision Manual describes the bank ABCP market, including the mechanics of ABCP and the benefits and risks presented by bank involvement with ABCP:

A number of commercial banks have become involved in credit-enhanced and asset-backed commercial paper programs. These securitization programs enable banks to help arrange short-term financing support for their customers without having to extend credit directly. This arrangement provides borrowers with an alternative source of funding and allows banks to earn fee income for managing the programs. Fees are earned for providing credit and liquidity enhancements to these programs.

Involvement in credit-enhanced and asset-backed commercial paper programs, however, can have potentially significant implications for organizations' credit- and liquidity-risk exposure. Therefore, examiners need to be fully informed on the fundamentals of these programs, on the risks associated with these programs, and on the examination and inspection procedures for banking organizations engaged in this activity.

Asset-backed commercial paper programs have been in existence since the early 1980s and have grown substantially since then. These programs use a special-purpose entity (SPE) to acquire receivables generally originated either by corporations or sometimes by the advising bank itself. The SPEs, which are owned by third parties, fund their acquisitions of receivables by issuing commercial paper that is to be repaid from the cash flow of the receivables.

Bank involvement in an ABCP program can range from advising the program to advising and providing all of the required credit and liquidity enhancements in support of the SPE's commercial paper. Typically, the advising bank or an affiliate performs a review to determine if the receivables of potential program participants (that is, corporate sellers) are eligible for purchase by the SPE. The scope of the review is similar to that used in structuring securitizations collateralized by credit card receivables or automobile secured loans.

Once the bank (or its affiliate) determines that a receivables portfolio has an acceptable credit risk profile, it approves the purchase of the portfolio at a discounted price by the SPE. The bank or its affiliate may also act as the operating agent for the SPE, which entails structuring the sale of receivable pools to

the SPE and then overseeing the performance of the pools on an ongoing basis.

The SPE pays for the receivables by issuing commercial paper in an amount equal to the discounted price paid for the receivables. The difference between the face value of the receivables and the discounted price paid provides, as discussed below, the first level of credit protection for the commercial paper. The individual companies selling their receivables traditionally act as the servicer for receivables sold to an SPE; that is, they are responsible for collecting principal and interest payments from the obligors and passing these funds on to the SPE on a periodic basis. The SPE then distributes the proceeds to the holders of the commercial paper.³²⁴

Nonfinancial companies are lesser participants in the commercial paper market.³²⁵ Still, as of year-end 2011, nonfinancial corporations had a significant amount of commercial paper outstanding—\$175 billion—which they typically used to fund their payrolls and inventories.³²⁶ Nonfinancial issuers decreased their reliance on the commercial paper market after 2000 and started issuing corporate bonds instead:

³²⁴ Federal Reserve Board, BHC Supervision Manual, § 2128.03.2, Commercial Bank Involvement in Credit Enhanced and Asset-Backed Commercial Paper.

³²⁵ As of January 2007, outstanding debt of nonfinancial companies totaled \$9.16 trillion of which only \$145 billion was in the form of commercial paper (1.6 percent). Marcin Kacperczyk and Philipp Schnabl, “When Safe Proved Risky: Commercial Paper During the Financial Crisis of 2007-2008,” *Journal of Economic Perspectives*, Vol. 24, No. 1 (Winter 2010) at 34. As of year-end 2011, outstanding debt of the domestic nonfinancial business sector was approximately \$11.6 trillion of which \$116 was in the form of commercial paper. Source: Federal Reserve Board, Statistical Release Z.1, Flow of Funds Accounts of the United States, L.2, Credit Market Debt Owed by Nonfinancial Sectors, March 8, 2012. These figures may underestimate the importance of the commercial paper market to corporate issuers to the extent they exclude consumer receivable assets of such issuers that are financed with bank-sponsored ABCP.

³²⁶ These numbers include commercial paper of both domestic (\$140 billion) and foreign (\$36 billion) nonfinancial corporations. In contrast, financial commercial paper outstanding totaled \$434 billion and ABCP outstanding totaled \$328 billion as of year-end 2011. Source: Federal Reserve Board, Commercial Paper Rates and Outstanding Summary. Note: a discrepancy exists between these numbers and those reported on Fed Statistical Release Z.1.L.2 which reports that nonfinancial corporate business commercial paper liability was \$116 billion at year end 2011.

Beginning in 2000, **total nonfinancial CP outstanding dropped by almost 50 percent in just over 2 years.** . . . Shen (2003) concludes that “aggressive inventory reduction and the widespread practice of replacing [CP] with longer term corporate bonds have reduced the demand for credit in the [CP] market.” Because nominal rates were relatively low following the 2000 recession, businesses elected to reduce uncertainty about future borrowing costs by reducing holdings of CP and issuing bonds at low interest rates. Subsequent data have supported Shen’s view. The share of nonfinancial businesses borrowing through the CP market declined from 5.4 percent between 1995 and 2000 to 2.3 percent between 2001 and 2008. At the same time, the share of nonfinancial borrowing through corporate bond issuance increased from 45.9 percent (1995-2000) to 54.4 percent (2001-08).³²⁷

Large investment banks were sponsors of ABCP prior to 2009. As a result of the crisis, they were absorbed into the banking system and now operate as bank holding companies or subsidiaries thereof.³²⁸

B. Banks Guarantee Their ABCP Programs

As the sponsors of ABCP conduits, banks have significant exposure to losses in those entities. The role of banks in providing backup support to ABCP conduits is well known and has been described in Federal Reserve research papers and other documents:

To obtain high short-term credit ratings, the bank or financial institution that sponsors or structures the ABCP program typically commits to provide liquidity or credit support that covers all the liabilities of the conduit. Conduits that specialize in buying receivables from clients of the sponsoring bank are known as multi-sellers; those conduits that exclusively hold assets originated by the sponsor are known as single-sellers, and those that buy highly rated securities are referred to as securities arbitrage. Structured investment vehicles (or SIVs) issued ABCP and longer-term liabilities, but not all liabilities

³²⁷ Anderson and Gascon, *supra* at 600-601.

³²⁸ Bear Stearns was acquired by JPMorgan Chase & Co., Merrill Lynch was acquired by Bank of America Corporation, and Goldman Sachs and Morgan Stanley became bank holding companies, all subject to regulation by the Fed. Lehman Brothers declared bankruptcy.

were covered by liquidity or credit support contracts. The main investors in the commercial paper issued by corporations and ABCP conduits are money market funds (Kacperczyk and Schnabl (2010)).³²⁹

An ABCP program is usually carried out through a bankruptcy-remote special purpose entity generally sponsored and administered by a banking organization (banks, bank holding companies, and thrift institutions) to provide funding to its corporate customers by purchasing asset pools from, or extending loans to, those customers. The ABCP provides funding for these assets through the issuance of commercial paper in the market. These issuances may be credit enhanced by various means, usually by a sponsoring bank.³³⁰

* * * * Between September 2007 and January 2008, total assets of commercial banks grew unusually fast as many ABS [asset-backed securities] that were previously funded in the ABCP market were moved from the balance sheets of ABCP issuers to those of commercial banks. As a result of a drying up of funding in the ABCP market, commercial banks started to fund the ABS in unsecured money markets, such as the Libor (London interbank offered rate), Eurodollar, and commercial paper markets, all of which would also become compromised at the peak of the crisis as credit risk reached extreme levels).³³¹

The Fed's BHC Supervision Manual describes the credit enhancements provided by banks to make their asset-backed commercial paper programs marketable to investors:

Asset-backed commercial paper programs typically have several levels of credit enhancement cushioning the commercial paper purchaser from potential loss. As noted above, the first level of loss protection is provided by the difference between the face value of the receivables purchased

³²⁹ "How Effective Were the Federal Reserve Emergency Liquidity Facilities? Evidence from the Asset-Backed Commercial Paper Money Market Mutual Fund Liquidity Facility," Federal Reserve Bank of Boston Working Paper No. QAU10-3, April 29, 2010.

³³⁰ 89 Federal Reserve Bulletin 431 (Oct. 2003).

³³¹ Tobias Adrian, Karin Kimbrough, and Dina Marchioni, "The Federal Reserve's Commercial Paper Funding Facility," Federal Reserve Bank of New York Economic Policy Review, May 2011, at 27.

and the discounted price paid for them, known as “holdback” or “overcollateralization.” In some cases, the terms of the sale also give the SPE recourse back to the seller if there are defaults on the receivables. The amount of overcollateralization and recourse varies from pool to pool and depends, in part, on the quality of the receivables in the pool and the desired credit rating for the paper to be issued. Usually, the level of credit protection provided by overcollateralization is specified in terms of some multiple of historical loss experience for similar assets.

In addition to overcollateralization and recourse, secondary credit enhancements are also customarily provided. Secondary credit enhancements include letters of credit, surety bonds, or other backup facilities that obligate a third party to purchase pools of receivables from the SPE at a specified price. In addition to credit enhancements, the programs generally have liquidity enhancements to ensure that the SPE can meet maturing-paper obligations.

The rating agencies typically require an SPE’s commercial paper to have secondary enhancements aggregating 100 percent of the amount outstanding in order to receive the highest credit rating. These enhancements are generally structured in one of two ways. In the first, a commercial bank enters into a single agreement under which it is unconditionally obligated to provide funding for all or any portion of maturing commercial paper that an SPE cannot pay from other sources. The obligation to fund may be triggered by credit losses, a liquidity shortfall, or both. In the second, two separate agreements that jointly cover 100 percent of an SPE’s outstanding commercial paper are established.

The first agreement, typically an irrevocable letter of credit, is primarily intended to absorb credit losses that exceed the first tier of credit enhancement for the commercial paper. The second arrangement is a “liquidity” facility that may or may not provide credit support. This second structure will often have a letter of credit equaling 10 percent to 15 percent of outstandings, with the liquidity facility covering the remaining 90 to 85 percent.³³²

³³² Federal Reserve Board, BHC Supervision Manual § 2128.03, Credit-Supported and Asset-Backed Commercial Paper (Risk Management and Internal Controls), § 2128.03.2

* * * * An asset-backed commercial paper (ABCP) program typically is a program through which a banking organization provides funding to its corporate customers by sponsoring and administering a bankruptcy-remote special-purpose entity that purchases asset pools from, or extends loans to, those customers. The asset pools in an ABCP program might include, for example, trade receivables, consumer loans, or asset-backed securities. The ABCP program raises cash to provide funding to the banking organization's customers through the issuance of externally rated commercial paper into the market. Typically, the sponsoring banking organization provides liquidity and credit enhancements to the ABCP program. These enhancements aid the program in obtaining high credit ratings that facilitate the issuance of the commercial paper.³³³

The Fed's BHC Supervision Manual describes the liquidity facilities typically provided by banks to support their ABCP and the resulting credit risk:

Liquidity facilities supporting ABCP often take the form of commitments to lend to, or to purchase assets from, the ABCP programs in the event that funds are needed to repay maturing commercial paper. Typically, this need for liquidity is due to a timing mismatch between cash collections on the underlying assets in the program and scheduled repayments of the commercial paper issued by the program.

A banking organization that provides liquidity facilities to ABCP is exposed to credit risk regardless of the term of the liquidity facilities. For example, an ABCP program may require a liquidity facility to purchase assets from the program at the first sign of deterioration in the credit quality of an asset pool, thereby removing such assets from the program. In such an event, a draw on the liquidity facility exposes the banking organization to credit risk.

Short-term commitments with an original maturity of one year or less expose banking organizations to a lower degree of credit risk than longer-term commitments. This difference in the degree of credit risk is reflected in the risk-based capital

Commercial Bank Involvement in Credit-Enhanced and Asset-Backed Commercial Paper (Jan. 2011).

³³³ *Id.*

requirement for the different types of exposures through liquidity facilities.³³⁴

Professor Acharya et al. have shown how bank ABCP guarantees were structured to reduce capital requirements and resulted in the ABCP coming back on the sponsoring banks' books during the financial crisis:

Our main conclusion in this paper is that, somewhat surprisingly, this crisis in the ABCP market did not result (for the most part) in losses being transferred to outside investors [i.e., MMFs] in ABCP. Instead, the crisis had a profoundly negative effect on commercial banks because banks had—in large part—insured outside investors in ABCP by providing explicit guarantees to conduits, which required banks to pay off maturing ABCP at par. Effectively, **banks had used conduits to securitize assets without transferring the risks to outside investors**, contrary to the common understanding of securitization as a method for risk transfer. We argue that **banks instead used conduits for regulatory arbitrage**.

We first document and describe the structure of the guarantees that effectively created recourse from conduits back to bank balance sheets. For the most part, these guarantees were explicit legal commitments to repurchase maturing ABCP in case conduits could not roll over their paper, not a voluntary form of implicit recourse. The guarantees could be structured as liquidity guarantees, a contract design that would reduce their regulatory capital requirements to at most a tenth of capital required to hold for on-balance sheet assets (especially after this regulation was confirmed as a permanent exemption by regulators in the United States in July 2004. . .) Such liquidity guarantees would cover most assets' credit and liquidity risks and effectively absorb all losses of outside investors.

. . . We find that the majority of guarantees were structured as capital-reducing liquidity guarantees and that the majority of conduits were sponsored by commercial banks. . . Also, we note [] that the growth of ABCP stalled in 2001 after regulators discussed an increase in capital requirements for conduit guarantees (following the failure of Enron which had employed conduit-style structures to create off-balance sheet

³³⁴ *Id.*

leverage) and picked up again, especially the issuance of liquidity-guaranteed paper by commercial banks, after a decision against a significant increase was made in 2004.

. . . . [W]e find that liquidity-guaranteed ABCP was issued more frequently by commercial banks with low *economic* capital, measured by their book value of equity relative to assets.³³⁵

* * * * In this paper, we analyze ABCP conduits and show how the structure of risk-sharing in these conduits implies recourse back to bank balance sheets. We find that outside investors [MMFs] who purchased ABCP suffered small losses even when collateral backing the conduits deteriorated in quality, supporting our main finding that conduits were a form of securitization without risk transfer. We also find that the stock price deterioration of banks at the start of the financial crisis was linked to the extent of their conduit exposure relative to equity capital. Once the crisis broke out, ABCP spreads rose and issuance fell, and more so where guarantees were weaker and sponsoring banks were weaker.

Our analysis makes it clear that from an economic standpoint conduits are “less regulated banks” that operate in the shadow banking world, but with **recourse to fully regulated entities, mainly commercial banks, that have access to government safety net**. Our results also indicate that when these “less regulated banks” do not have such recourse (extendible notes and SIVs guarantees), they struggle to survive a systemic crisis. While some may interpret this finding to justify the accordance of government safety net to all those parts of the shadow banking world that perform maturity mismatch like banks, the bigger lesson in our view is that banks have incentives to get around regulatory capital requirements in order to invest in aggregate risks in a leveraged manner.³³⁶

³³⁵ Viral V. Acharya, Philipp Schnabl, and Gustavo Suarez (senior economist, Federal Reserve Board), “Securitization Without Risk Transfer,” Aug. 8, 2011 at 3-4, available at SSRN.com.

³³⁶ *Id.* at 30.

C. ABCP Has Been Described as Part of the “Shadow Banking System”

Bank ABCP conduits and other securitization vehicles have been described as part of the “shadow banking” system by Fed Chairman Bernanke and others.³³⁷ In testimony before the Financial Crisis Inquiry Commission, Mr. Bernanke discussed how the bundling of subprime mortgages in securitized asset pools through the “shadow banking system” ultimately resulted in a contagion:

MR. BERNANKE: . . . What I’d like to call your attention to is the broader phenomenon of the so-called *shadow banking system*, which subprime mortgages were only one type of asset which were bundled together into securities, and then these securities were then sold through various legal off-balance-sheet type mechanisms to investors, usually with AAA ratings from the credit-rating agencies.

Among other things, a striking aspect of these securitizations is that these vehicles, these special-purpose vehicles, et cetera, typically held long-term assets, like mortgages, but were financed by very short-term, overnight type money, commercial paper, et cetera. And there’s some interesting analysis to this. One example is some work by Gary Gorton, G-O-R-T-O-N, at Penn. He might be at Yale now. I’m sorry.

CHAIR ANGELIDES: Yale.

MR. BERNANKE: He was at Penn before. And he points out that it’s like an old-fashioned bank before deposit insurance, that the depositors in that bank, as long as they think the bank is 100 percent safe, they’ll leave the money in. But as soon as they get some loss of confidence, they’re going to pull their money out. When the subprime mortgages began to go bad, a

³³⁷ See Federal Reserve Board Chairman Ben S. Bernanke, “Causes of the Recent Financial and Economic Crisis,” Testimony before the Financial Crisis Inquiry Commission, Sept. 2, 1010 (“Securitization vehicles, ABCP vehicles, money market funds, investment banks, mortgage companies, and a variety of other entities are part of the shadow banking system.”). See also Zoltan Pozsar, Tobias Adrian, Adam Ashcraft, and Hayley Boesky, “Shadow Banking,” Federal Reserve Bank of New York Staff Reports, no. 458, July 2010 (“Examples of shadow banks include finance companies, asset-backed commercial paper (ABCP) conduits, limited-purpose finance companies, structured investment vehicles, credit hedge funds, money market mutual funds, securities lenders, and government-sponsored enterprises.”).

number of us, like myself and Paulson, were wrong in saying that this was a contained problem. And the reason we were wrong was that subprime mortgages themselves are a pretty small asset class. You know, the stock mortgages market goes up and down every day more than the entire value of the subprime in the country. But what created the contagion, or one of the things that created the contagion, was that the subprime mortgages were entangled in these huge securitized pools, so they started to take losses and in some cases, the credit-rating agencies, which had done a bad job basically of rating them began to downgrade them. And once there was fear that these securitized credit instruments were not perfectly safe, then it was just like an old-fashioned bank run. And the commercial paper market began to pull their money out. That created huge problems for the financing of these things. **It forced the banks to take them back on their balance sheets or to support them and so on. So there was an old-fashioned bank run, which I think is a really interesting factor.**³³⁸

The ABCP conduits enabled banks to leverage their assets off-balance sheet:

Banks set up off-balance-sheet ABCP conduits where they transferred some of the assets they would have otherwise held on their books, funded them with a sliver of equity and the rest with rollover commercial paper, and provided *liquidity enhancement* and *credit enhancement* to these conduits. The enhancements implied that investors in conduits had recourse to banks in case the quality of assets deteriorated. Put simply, investors would return the assets back to bank once they suffered a loss. Such enhancements were treated as capital-light in existing Basel rules for capital requirements. As banks rolled out more and more ABCP conduits, they increased their short-term liabilities. But their effective or contingent leverage remained in the “shadow” banking system. What is more, they were able to free up capital to originate more assets, generally of lower quality, and hide them in the shadow banking system.³³⁹

³³⁸ Testimony by Ben S. Bernanke, Chairman, Federal Reserve Board, before the Financial Crisis Inquiry Commission, Nov. 17, 2009.

³³⁹ Viral V. Acharya and Philipp Schnabl, “How Banks Played the Leverage Game,” Executive Summary of Chapter 2, *Restoring Financial Stability: How to Repair a Failed System*, New York Stern School of Business (Wiley, 2009).

ABCP enabled banks to increase their return on equity due to a reduced capital charge on assets held off-balance sheet in ABCP conduits while effectively being subsidized by the Fed's discount window and FDIC deposit insurance:

Banks used ABCP conduits to increase return on equity (ROE). By moving loans, mortgages, or securitized products off balance sheet into [] conduits or SIVs, only a capital charge for the backup liquidity line was required. Because the liquidity line benefited from official backstops such as the discount window and deposit insurance, the cost of capital did not fully reflect the risk transfer from the balance sheet to the conduit. As a result, the reduction in capital charges yielded an increase in return on equity. However, through the liquidity line, the bank retained exposure to the off balance sheet vehicles. Indeed, in the second half of 2007, many banks effectively consolidated assets from conduits and SIVs on balance sheet. From a regulatory point of view, the problem with the off balance sheet funding via ABCP was that discount window and deposit insurance guarantees were extended indirectly and sometimes implicitly via the liquidity line to the conduit.³⁴⁰

As described below, the exposure of banks to their own ABCP resulted in significant claims on the banking system in 2007 and 2008 that threatened to destabilize major banks and required extensive emergency measures by the Fed.

The Financial Crisis Inquiry Commission has described the bank ABCP market as a form of regulatory arbitrage that backfired when banks were forced to take ABCP assets onto their balance sheets:

As early as 1998, Moody's called the new asset-backed commercial paper (ABCP) programs "a whole new ball game." As asset-backed commercial paper became a popular method to fund the mortgage business, it grew from about one-quarter to about one-half of commercial paper sold between 1997 and 2001 Commercial banks used commercial paper, in part, for regulatory arbitrage.

³⁴⁰ Tobias Adrian, "Dodd-Frank One Year On: Implications for Shadow Banking," Federal Reserve Bank of New York, Staff Reports, Staff Report no. 533, December 2011, at 4.

When banks kept mortgages on their balance sheets, regulators required them to hold 4% in capital to protect against loss. When banks put mortgages into off-balance-sheet entities such as commercial paper programs, there was no capital charge (in 2004, a small charge was imposed). But to make the deals work for investors, banks had to provide liquidity support to these programs, for which they earned a fee. This liquidity support meant that the bank would purchase, at a previously set price, any commercial paper that investors were unwilling to buy when it came up for renewal. During the financial crisis these promises had to be kept, eventually putting substantial pressure on banks' balance sheets.³⁴¹

* * * * By mid-2007, hundreds of billions out of the \$1.2 trillion U.S. ABCP market were backed by mortgage-related assets, including some with subprime exposure. As noted, the rating agencies had given all of these ABCP programs their top investment- grade ratings, often because of liquidity puts from commercial banks. When the mortgage securities market dried up and money market mutual funds became skittish about broad categories of ABCP, **the banks would be required under these liquidity puts to stand behind the paper and bring the assets onto their balance sheets, transferring losses back into the commercial banking system.** In some cases, to protect relationships with investors, banks would support programs they had sponsored even when they had made no prior commitment to do so.³⁴²

These accounts show that ABCP is an integral part of the regulated banking system, not some unregulated shadow banking system.

D. A Run on Bank ABCP Started the Financial Crisis

As described in the body of this paper, banks experienced a run on their ABCP programs in 2007. Fed researchers have said that this run is what started the financial crisis.³⁴³ This part of the Appendix explains the run on bank ABCP in greater detail.

³⁴¹ Final Report of the National Commission on the Causes of the Financial and Economic Crisis in the United States at 113-14. See also Moody's Investor Service, "The Fundamentals of Asset-Backed Commercial Paper," Special Report, Feb. 3, 2003.

³⁴² *Id.* at 246.

³⁴³ See Tobias Adrian, Karin Kimbrough, and Dina Marchioni, The Federal Reserve's Commercial Paper Funding Facility, Federal Reserve Bank of New York Economic Policy

As noted, a large portion of the assets financed by ABCP are consumer receivables and mortgages. Prior to the financial crisis, these assets included subprime mortgages. When the housing bubble burst in 2007, the quality of the mortgages in many ABCP conduits became suspect and were downgraded by the credit rating agencies. Bank sponsors of ABCP were obligated to support their ABCP entities, creating severe stress on large banks.³⁴⁴ Some banks that relied on ABCP to fund their mortgage operations actually failed.³⁴⁵

Investors, fearing that banks would be unable to support their ABCP, shifted their funds from MMFs that held ABCP to MMFs that invested solely in Treasuries. This shift put pressure on the ABCP market as MMFs needed to unload large amounts of ABCP and could not roll over their ABCP holdings:

Investors became increasingly worried that banks, which provided liquidity facilities to the conduits, would be unable to support them. . . . the ABCP market was subject to a panic reminiscent of the banking panics of the Great Depression, in which runs on some programs were not even related to program fundamentals. Broad-based investor concerns that sponsoring banks would be unable to meet their commitments if numerous programs required support at the same time caused extensive withdrawals. Startled investors began to shift

Review, May 2011, at 27 (“the initial decline of outstanding ABCP is often used to date the beginning of the first wave of the 2007-2009 financial crisis.”).

³⁴⁴ See Anderson, Richard G., and Gascon, Charles S., “The Commercial Paper Market, the Fed, and the 2007-2009 Financial Crisis,” Federal Reserve Bank of St. Louis Review, November/December 2009, 589, 602. See also Moody’s Investor Services, *The Fundamentals of Asset-Backed Commercial Paper*, Feb. 3, 2003; BofA Global Capital Management, *Asset-Backed Commercial Paper: A Primer*, Feb. 2011.

³⁴⁵ The failure of Countrywide Bank, for example, has been attributed to its reliance on ABCP to fund its operations. Final Report of the National Commission on the Causes of the Financial and Economic Crisis in the United States at 248 (quoting a Fed staff memorandum stating, “Countrywide’s short-term funding strategy relied heavily on commercial paper (CP) and, especially, on ABCP. In current market conditions, the viability of that strategy is questionable. . . . The ability of the company to use [mortgage] securities as collateral in [repo transactions] is consequently uncertain in the current market environment. . . . As a result, it could face severe liquidity pressures. Those liquidity pressures conceivably could lead eventually to possible insolvency.”).

their holdings from MMFs invested in ABCP toward MMFs invested solely in Treasuries.³⁴⁶

A run on the ABCP market commenced in August of 2007, creating the initial panic that weakened bank sponsors of ABCP and led to the global financial crisis in 2008. As explained in the Economic Report of the President for 2008:

The credit market disruptions seriously shook the ABCP markets. Investors began to differentiate more between the various types of ABCP and they demanded higher returns on ABCP that had less liquidity support. As a result of this greater investor scrutiny and investor reluctance to purchase commercial paper issued by entities with limited or no backstop liquidity, the volume of outstanding ABCP shrank more than 35 percent, from \$1,180 billion in early August 2007 to about \$750 billion in late December 2007) []. Increased concern about risk associated with ABCP and risk in general prompted a flight to quality as investors shifted to low-risk short-term Treasuries. Because ABCP is used to fund SIVs, the reduced demand for ABCP forced banks to either bring the underlying assets (and their associated liabilities) back onto their balance sheets or reduce the size of their SIVs by selling off the assets.³⁴⁷

Fed Chairman Bernanke has described the run on ABCP and the impact on bank sponsors of ABCP:

[D]ifficulties intensified over subsequent weeks, as investors around the world pulled back funding; indeed, outstanding U.S. ABCP plummeted almost \$200 billion in August [of 2007]. The economist Gary Gorton has likened this pullback to a traditional bank run: Lenders in the commercial paper market and other short-term money markets, like depositors in a bank, place the highest value on safety and liquidity. Should the safety of their investments come into question, it is easier and safer to withdraw funds—“run on the bank”—than to invest time and resources to evaluate in detail whether their investment is, in fact, safe. Although subprime mortgages

³⁴⁶ *Id.* at 603-05. A number of banks were forced to provide financial to support their affiliated ABCP programs and more would have been had not the Fed instituted its own liquidity facilities.

³⁴⁷ Economic Report of the President (2008), 64-65.

composed only a small part of the portfolios of most structured credit vehicles, cautious lenders pulled back even from those that likely had no exposure to subprime mortgages. **The resulting funding pressure was in turn transmitted to major banks that had sponsored or provided funding guarantees to vehicles.** Short-term funding in the interbank market became more difficult and costly. Over subsequent quarters, instability in global money markets worsened and posed an increasingly serious threat to the functioning of a range of financial markets and institutions, which in turn constricted the flow of lending to nonfinancial borrowers. Ultimately, the disruptions to a range of financial markets and institutions proved far more damaging than the subprime losses themselves.³⁴⁸

Bernanke further explained:

The problems in the mortgage-related sector reverberated throughout the financial system and particularly in the market for asset-backed commercial paper (ABCP). In this market, various institutions have established special-purpose vehicles to issue commercial paper to help fund a variety of assets, including some private-label mortgage-backed securities, mortgages warehoused for securitization, and other long-maturity assets. Investors had typically viewed the commercial paper backed by these assets as quite safe and liquid, because of the quality of the collateral and because the paper is often supported by banks' commitments to provide lines of credit or to assume some credit risk. But the **concerns about mortgage-backed securities and structured credit products (even those unrelated to mortgages) greatly reduced the willingness of investors to roll over ABCP,** particularly at maturities of more than a few days. The problems intensified in the second week of August after the announcement by a large overseas bank that it could not value the ABCP held by some of its money funds and was, as a result, suspending redemptions from those funds. Some commercial paper issuers invoked their right to extend the maturity of their paper, and a few issuers defaulted. In response to the heightening of perceived risks, investors fled to

³⁴⁸ Federal Reserve Board Chairman Ben S. Bernanke, "Causes of the Recent Financial and Economic Crisis," Testimony before the Financial Crisis Inquiry Commission, Sept. 2, 1010.

the safety and liquidity of Treasury bills, sparking a plunge in bill rates and a sharp widening in spreads on ABCP. . . .

As the strains in financial markets intensified, many of the largest banks became concerned about the possibility that they might face large draws on their liquidity and difficult-to-forecast expansions of their balance sheets. They recognized that they might have to provide backup funding to programs that were no longer able to issue ABCP.

Moreover, in the absence of an active syndication market for the leveraged loans they had committed to underwrite and without a well-functioning securitization market for the nonconforming mortgages they had issued, **many large banks might be forced to hold those assets on their books rather than sell them to investors as planned.** In these circumstances of heightened volatility and diminished market functioning, banks also became more concerned about the possible risk exposures of their counterparties and other potential contingent liabilities.

These concerns prompted banks to become protective of their liquidity and balance sheet capacity and thus to become markedly less willing to provide funding to others, including other banks. As a result, both overnight and term interbank funding markets came under considerable pressure. Interbank lending rates rose notably, and the liquidity in these markets diminished. A number of the U.S. ABCP programs that had difficulty rolling over paper were sponsored by or had backup funding arrangements with European banks. As a result, some of these banks faced potentially large needs for dollar funding, and their efforts to manage their liquidity likely contributed to the pressures in global money and foreign exchange swap markets.³⁴⁹

The Fed's Monetary Report to Congress explained:

At the end of July [2008], European asset-backed commercial paper (ABCP) and short-term funding markets were roiled by warnings of heavy losses associated with commercial paper programs backed by U.S. subprime mortgages. On August 9,

³⁴⁹ Federal Reserve Board Chairman Ben S. Bernanke, "The Recent Financial Turmoil and its Economic and Policy Consequences," Remarks before the New York Economic Club, Oct. 15, 2007.

a major European bank announced that it had frozen redemptions for three of its investment funds, citing its inability to value some of the mortgage-related securities held by the funds. After that announcement, liquidity problems and short-term funding pressures intensified in Europe and emerged in U.S. money markets. Partly in response to those developments, the Federal Reserve and other central banks took steps to foster smoother functioning of short-term credit markets. . . . **Spreads on U.S. ABCP widened considerably in mid-August, and the volume of ABCP outstanding began a precipitous decline as investors balked at rolling over paper for more than a few days. . . .** Over the next few weeks, some U.S. issuers invoked their right to extend the maturity of their paper. Others temporarily drew on their bank-provided backup credit lines, and a few issuers defaulted. . . . **Against that backdrop, investors fled to the relative safety of Treasury securities, particularly Treasury bills, during mid-August. For example, inflows into money market mutual funds investing only in Treasury and agency securities jumped in August.**³⁵⁰

The Financial Stability Forum also has explained how the run on ABCP started the financial crisis:

The problems in the subprime market provided the trigger for a broad reversal in market risk-taking. As CRAs [credit rating agencies] made multiple-level downgrades of subprime-backed structured products, investors lost confidence in the ratings of a wider range of structured assets and, in August 2007, **money-market investors in asset-backed commercial paper (ABCP) refused to roll over investments in bank-sponsored conduits** and structured investment vehicles (SIVs) backed by structured products.

As sponsoring banks moved to fund liquidity commitments to ABCP conduits and SIVs, they sought to build up liquid resources and became unwilling to provide term liquidity to others. This led to a severe contraction of activity in the term interbank market and a substantial rise in term premia, especially in the US and Europe, and dysfunction in a number of related short-term financial markets.

³⁵⁰ Federal Reserve Board, Monetary Policy Report to Congress (Feb. 27, 2008) 23-25.

. . . . As the turmoil spread, increased risk aversion, reduced liquidity, market uncertainty about the soundness of major financial institutions, questions about the quality of structured credit products, and uncertainty about the macroeconomic outlook fed on each other. New issuance in securitisation markets fell sharply. **As large banks reabsorbed assets and sustained large valuation losses, their balance sheets swelled and their capital cushions shrank. This caused banks to tighten lending conditions.**³⁵¹

Researchers at the Federal Reserve Bank of St. Louis have described how the run on ABCP caused banks to hoard liquidity to cover their loss exposure, creating pressure on counterparties and freezing the short-term credit markets, leading to the failure of Bear Stearns:

Banks hoarded liquidity to cover any losses they might experience on their own books through conduits, or those of their SIVs, which might need to be taken back onto their balance sheets. These losses turned out to be substantial and involve large investment banks, such as UBS, Merrill Lynch, and Citigroup (Table 1), whose CEOs would pay the price by resigning as losses were revealed.

The uncertainty associated with the scale of the losses that banks might face created a dislocation in the interbank markets. **Banks would not lend to other banks for fear of the scale of counterparty risk.** If borrowing banks had unrevealed losses they might not repay the funds that they borrowed from other banks.

. . . . Concerns had mounted over the degree of leverage and the quality of the MBSs in which Bear Stearns had invested. Reportedly, Goldman Sachs had provided indications to the hedge fund Hayman Capital that it would not take exposure to Bear Stearns. As news spread of this warning, an investment bank run occurred, reducing Bear Stearns' ability to finance its activities. These had been funded by the sale of short term ABCP assets and had been rolled over regularly, but on Friday, March 14, 2008, it became clear that Bear Stearns

³⁵¹ Financial Stability Forum, Report of the Financial Stability Forum on Enhancing Market and Institutional Resilience, 7 April 2008, at 6. The Forum consists of the principal financial regulators of the major industrialized nations, including the U.S. Federal Reserve, Treasury, and Securities and Exchange Commission.

would not be able to roll over the assets as normal and as a result would fail to meet payments due on Monday, March 17. To avoid the costly unraveling of over-the-counter interest rate, exchange rate, and credit default derivatives—for which Bear Stearns was a counterparty—that might threaten to bring into bankruptcy other financial institutions, including JPMorgan Chase, Bear Stearns' banker, the Federal Reserve Bank of New York stepped in to support the institution with a 28-day loan via JPMorgan Chase. Analysis over the weekend revealed that a takeover would be necessary, and this was arranged through a shares purchase by JPMorgan Chase initially set at \$2 per share, but later increased to \$10 per share to placate shareholders and ensure the deal would be accepted, combined with a \$29 billion loan from the Federal Reserve, and with JPMorgan Chase taking on the first \$1 billion of losses to Bear Stearns.³⁵²

Chairman Bernanke has explained the impact of the run on ABCP on the balance sheets of banks and their reluctance to lend:

[T]he concerns about mortgage-backed securities and structured credit products more generally (even those unrelated to mortgages) led to great **reluctance on the part of investors to roll over ABCP**, particularly at maturities of more than a few days, **leaving the sponsors of the various investment vehicles scrambling for liquidity**. Those who could not find new funding were forced to sell assets into a highly illiquid and unreceptive market.* * * *

As the problems with these facilities multiplied, banks came under increasing pressure to rescue the investment vehicles they sponsored--either by providing liquidity or other support or, as has become increasingly the norm, by taking the assets of the off-balance-sheet vehicles onto their own balance sheets. Banks' balance sheets were swelled further by non-conforming mortgages, leveraged loans, and other credits that the banks had extended but for which well-functioning secondary markets no longer existed.

³⁵² Paul Mizen, "The Credit Crunch of 2007-2008: A Discussion of the Background, Market Reactions, and Policy Responses," Federal Reserve Bank of St. Louis Review, Sept.-Oct. 2008.

Even as their balance sheets expanded, **banks began to report large losses**, reflecting the sharp declines in the values of mortgages and other assets. Thus, banks too became subject to valuation uncertainty, as could be seen in their share prices and other market indicators such as quotes on credit default swaps. **The combination of larger balance sheets and unexpected losses also resulted in a decline in the capital ratios of a number of institutions.** Several have chosen to raise new capital in response, and the banking system retains substantial levels of capital. However, on balance, **these developments have prompted banks to become protective of their liquidity and balance sheet capacity and thus to become less willing to provide funding to other market participants, including other banks.** As a result, both overnight and term interbank funding markets have periodically come under considerable pressure, with spreads on interbank lending rates over various benchmark rates rising notably. We also see considerable evidence that **banks have become more restrictive in their lending to firms and households.** More-expensive and less-available credit seems likely to impose a measure of financial restraint on economic growth.³⁵³

A report by Fed researchers concluded that the run on ABCP in 2007 triggered the financial crisis that erupted in 2008:

The financial crisis of 2007-9 was triggered by a run on the liabilities of asset-backed commercial paper (ABCP) vehicles that began in August of 2007. Such vehicles had about \$1.4 trillion in assets just before the crisis began; the hardest-hit vehicles had about \$700 billion. **Most were sponsored by banks that provided their vehicles with backup lines of credit and other support. When rolling over maturing commercial paper became difficult, vehicles turned to their sponsors for debt funding. The sponsors then sought large amounts of new funding in interbank markets and other money markets. . . .The resulting shock to global money markets was unprecedented.** Over the following months, the disruptions propagated into many segments of the global financial system. . . . **By creating and**

³⁵³ Federal Reserve Chairman Ben S. Bernanke, “Financial Markets, the Economic Outlook, and Monetary Policy,” Remarks before Women in Housing and Finance and Economic Club, January 10, 2008.

operating such vehicles, the sponsors mainly took on systematic bad-tail risk. Credit arbitrage ABCP vehicles were almost immune to all but two events: Unprecedented declines in credit quality of asset-backed securities, or a loss of access to funding in the ABCP market. Either event was predictably more likely to occur in tandem with broad disruptions in financial markets.³⁵⁴

Another research paper by Fed economists concluded that ABCP is vulnerable to runs and may be “inherently unstable” and a source of systemic risk:

The \$350 billion contraction in the asset-backed commercial paper (ABCP) market in the last five months of 2007 played a central role in transforming concerns about the credit quality of mortgage-related assets into a global financial crisis. This paper attempts to better understand why the substantial contraction in ABCP occurred by measuring and analyzing runs on ABCP programs over the period from August 2007 through December 2007. While it has been suggested that commercial paper programs, like commercial banks, may be prone to runs, we are the first to conduct a comprehensive empirical analysis of runs in the ABCP market using a rich and novel issue-level data set for all ABCP programs in the U.S. market. A program is defined as being run when it does not issue new paper during a week despite having a substantial share of its outstandings scheduled to mature, and then continuing in a run until it issues. We find evidence of extensive runs: more than 100 programs (one-third of all ABCP programs) were in a run within weeks of the onset of the turmoil and the odds of subsequently leaving the run state were very low. We interpret this finding as an indication that the ABCP market was subject to a bank-like “panic.” We also find that while runs were linked to credit and liquidity exposures of individual programs, runs were also related importantly to non-program specific variables in the first several weeks of the turmoil, indicating that runs were relatively indiscriminate during the early part of the panic.

³⁵⁴ Arteta, Carey, Correa, Federal Reserve Board, Kotter, Univ. of Michigan-Ross School of Business, “Revenge of the Steamroller: ABCP as a Window on Risk Choices,” July 27, 2010, available at webuser.bus.umich.edu/jkotter/papers/revengesteamroller.pdf.

Thus the ABCP market may be inherently unstable and a source of systemic risk.³⁵⁵ * * * *

The U.S. asset-backed commercial paper (ABCP) market erupted in late summer of 2007 and played a pivotal role in the global financial crisis that would become increasingly severe. In the ABCP market, where investors expect to be able to access their funds on demand at par value, even limited concerns about risk can instigate flight from the market. A narrative of the turmoil begins with mounting delinquencies of subprime mortgages triggering a decline in investor confidence in mortgage financial intermediaries and ratings downgrades of structured mortgage securities. Reflecting these concerns, investors became reluctant to roll over ABCP, yields on new issues of ABCP soared, and outstanding ABCP plummeted \$190 billion, almost 20 percent, in August, and fell by an additional \$160 billion by the end of the year (see Figure 1). The steep contraction in ABCP, in turn, sparked **concerns about whether banking institutions that explicitly provided program back-up liquidity support or implicitly provided liquidity as sponsors would be able to meet their obligations. As a result, banking institutions began to hoard their cash** and became extremely hesitant to lend in inter-bank funding markets, and risk spreads for interbank funds even at overnight terms widened sharply. In addition, demand from ABCP programs for AAA-rated tranches of mortgage backed securities (MBS) declined, which made it difficult to structure new securitizations of mortgages. **Thus the events in the ABCP market had far-reaching and long-lasting consequences for the broader financial markets and the economy.**³⁵⁶ * * * *

Our results highlight how **the ABCP market is central to understanding the current financial crisis.** First, concerns about credit losses on subprime mortgages affected this market, through runs on programs with exposure to these assets. However, the effects through subprime mortgage losses are only part of the story, and it is likely that had only those programs been run, the effects on broader markets would have been more limited. Another channel is that **concerns about**

³⁵⁵ Covitz, Liang, and Suarez, “The Evolution of a Financial Crisis: Panic in the Asset-Backed Commercial Paper Market,” August 24, 2009, available at SSRN.com. The authors are economists at the Federal Reserve Board.

³⁵⁶ *Id.* at 2.

these losses led investors in ABCP to question the strength of the liquidity support on other programs, and programs with extendibility features or less-than-full liquidity support were run. As investors lost confidence and ABCP could not roll over, explicit and implicit supports provided by banks were called on, pressuring bank balance sheets. Banks became uncertain about further draws on their commitments and, in turn, reduced lending to others, thereby magnifying the effects of the initial ABCP runs.

A third significant effect is that as investors ran, ABCP programs as a buyer of the AAA rated tranches of new securitizations disappeared. Combined with the pull-back in the repo market, another market that funded AAA-rated tranches with short-term debt, securitizations became increasingly difficult, forcing banks to look for other ways to fund their origination of mortgages and other loans. As a consequence, **at a time when banks were concerned about further calls on their explicit and implicit commitments to support ABCP, they also lost access to securitization as a source of funding, further magnifying the effects of ABCP runs.**

Our finding of indiscriminate runs suggests that the **ABCP markets may be inherently unstable**: Investors appeared to run in some cases only because they feared that others would run as well. Even investors in programs with solid fundamentals may pull back on concerns that the bank as liquidity provider might not be able to support multiple programs at the same time. Indeed, it seems implausible that the entire ABCP market of \$1.2 trillion could be fully supported by the private bank sector if supports were called upon all at once. Thus, investors may run from the entire market. **Thus an important implication is that financial institutions, even in developed countries with credible deposit insurance systems, may be exposed to runs through off-balance-sheet exposures to ABCP programs. A corollary to this is that the federal government can be exposed to runs from entities other than banks, in particular off-balance sheet ABCP conduits sponsored and supported by banks.**³⁵⁷

³⁵⁷ *Id.* at 29-30.

It is clear from these accounts that the financial crisis of 2008 commenced in 2007 with a run, not on MMFs, but on bank-sponsored ABCP. Investors who fled the ABCP market flocked to MMFs that invested in Treasury securities. Federal Reserve data show that investors added more than \$1 trillion to MMFs following the run on ABCP in August of 2007.³⁵⁸

Moreover, banking organizations experienced a run on their own commercial paper other than ABCP. Banking organizations issue commercial paper as a means of funding their traditional activities as well as their ABCP conduits. Investors stopped purchasing bank commercial paper as well as ABCP.

IX. BANKS AND THEIR AFFILIATES ARE THE SHADOW BANKING SYSTEM

Despite clear evidence that bank ABCP is part of the regulated banking system, Chairman Bernanke has characterized it as part of the “unregulated” shadow banking system, which he says also includes MMFs:

Shadow banks are financial entities other than regulated depository institutions (commercial banks, thrifts, and credit unions) that serve as intermediaries to channel savings into investment. Securitization vehicles, ABCP vehicles, money market funds, investment banks, mortgage companies, and a variety of other entities are part of the shadow banking system.³⁵⁹

³⁵⁸ Federal Reserve Statistical Release H.6., Money Stock Measures, Monthly Historical Money Stock Tables.

³⁵⁹ Ben S. Bernanke, Chairman, Federal Reserve Board, Statement before the Financial Crisis Inquiry Commission, Sept. 2, 2010. See also Ben S. Bernanke, Chairman, Federal Reserve Board, Remarks at the Conference co-sponsored by the Bendheim Center for Finance and the Center for Economic Policy Studies, Sept. 24, 2010 (“the increasing financial intermediation taking place outside of regulated depository institutions through the so-called shadow banking system”) and (“the run occurred outside the traditional banking system, in the shadow banking system--consisting of financial institutions other than regulated depository institutions, such as securitization vehicles, money market funds, and investment banks. . . . Because the runs on the shadow banking system occurred in a historically unfamiliar context, outside the commercial banking system. . .”).

Fed researchers have described the shadow banking system as a network of market-based credit intermediation channels other than the traditional banking model whereby banks make loans and hold them to maturity:

Shadow banks are financial intermediaries that conduct maturity, credit, and liquidity transformation without access to central bank liquidity or public sector credit guarantees. **Examples of shadow banks include** finance companies, **asset-backed commercial paper (ABCP)** conduits, limited-purpose finance companies, structured investment vehicles, credit hedge funds, **money market mutual funds**, securities lenders, and government-sponsored enterprises.

Shadow banks are interconnected along a vertically integrated, long intermediation chain, which intermediates credit through a wide range of securitization and secured funding techniques such as ABCP, asset-backed securities, collateralized debt obligations, and repo. This intermediation chain binds shadow banks into a network, which is the shadow banking system. **The shadow banking system rivals the traditional banking system in the intermediation of credit to households and businesses.** The traditional model no longer exists as the prevailing operating method in the banking system.³⁶⁰

The Financial Stability Board also has defined “shadow banking” as “credit intermediation involving entities and activities outside the regular banking system”³⁶¹

These statements reflect the erroneous view that the shadow banking system is something other than the regulated banking system. This supposition could not be further from the truth. As should be clear from the foregoing, and as discussed further below, banking organizations operate the shadow banking system and to a large extent *are* the shadow banking system.³⁶²

³⁶⁰ Zoltan Pozsar, Tobias Adrian, Adam Ashcraft, Hayley Boesky, “Shadow Banking,” Federal Reserve Bank of New York Staff Reports, Staff Report no. 458, July 2010.

³⁶¹ Financial Stability Board, “Shadow Banking: Strengthening Oversight and Regulation,” Oct. 27, 2011 at 1. The Financial Stability Board is an international body of financial regulators from major industrial economies. The Federal Reserve Board, SEC, and Secretary of the Treasury are members.

³⁶² Prior to the financial crisis, large investment banking firms in addition to banking organizations engaged in securitization activities. All of those firms became part of bank

Without banks and their affiliates, the shadow banking system would not exist, at least not on a scale capable of threatening the entire financial system. Banking organizations are the fulcrum of the shadow banking system. Economist Gary Gorton has said:

[T]he shadow banking system is essentially how the traditional banking, regulated, banking system is funded. The two banking systems are intimately connected. This is very important to recognize. It means that without the securitization markets the traditional banking system is not going to function.³⁶³

Fed researchers have noted that the shadow banking system grew out of securitization activities of banks (including ABCP) and that securitization was at the heart of the financial crisis by enabling banks to leverage their assets:

The shadow banking system is organized around securitization and wholesale funding.³⁶⁴

The current financial crisis has highlighted the growing importance of the “shadow banking system,” which grew out of the securitization of assets and the integration of banking with capital market developments. . . . Securitization was intended as a way to transfer credit risk to those better able to absorb losses, but instead it increased the fragility of the entire financial system by allowing banks and other intermediaries to “leverage up” by buying one another’s securities.³⁶⁵

Securitization is the means by which banks convert loans into securities for sale to investors through ABCP and other asset-backed securities. Banking organizations are key players at every level of the securitization network. They

holding companies (Bear Stearns, Morgan Stanley, Goldman Sachs, and Merrill Lynch) or went bankrupt (Lehman Brothers) in 2008.

³⁶³ Gary Gorton, “Questions and Answers About the Financial Crisis,” prepared for the U.S. Financial Crisis Inquiry Commission, Feb. 20, 2010, at 8.

³⁶⁴ Zoltan Pozsar, Tobias Adrian, Adam Ashcraft, Hayley Boesky, “Shadow Banking,” Federal Reserve Bank of New York Staff Reports, Staff Report no. 458, July 2010 (rev. Feb. 2012), at 10.

³⁶⁵ Tobias Adrian, Hyun Song Shin, Federal Reserve Bank of New York Staff Reports, “The Shadow Banking System: Implications for Financial Regulation,” Staff Report no. 382 (July 2009).

establish credit underwriting standards for loans, originate loans, purchase loans from other originators, warehouse loans, package and securitize loans, structure vehicles to hold the loans, issue securities (including commercial paper) backed by the loans, guarantee the securities and the vehicles, secure a credit rating, sell the securities to investors, and buy back the securities when the underlying loans default. They are present at every inch of the shadow banking pipeline.

JPMorgan Chase & Co., a major banking organization, has described its extensive involvement in asset-backed securitization activities, including ABCP:

JPMorgan Chase is a leading global financial services firm actively involved in many aspects of the asset-backed securities (“ABS”) market. Through several subsidiaries, JPMorgan Chase is an issuer and, in some cases, a servicer of many types of ABS, including residential and commercial mortgage-backed securities (respectively, “RMBS” and “CMBS”) and ABS backed by credit card receivables, auto loans and student loans, among others. JPMorgan Chase Bank, National Association is an administrator of three asset-backed commercial paper (“ABCP”) conduits, which, as of June 30, 2011, had aggregate outstanding ABCP of approximately \$22.25 billion. Our subsidiary, J.P. Morgan Securities LLC (“J.P. Morgan”), is a broker-dealer registered under the Securities Exchange Act of 1934, as amended (the “Exchange Act”) and is a leading underwriter/placement agent and dealer in the ABS markets. As part of our Asset and Wealth Management business, J.P. Morgan Investment Management Inc. (“J.P. Morgan Investment Management”) is a significant investor in many sectors of the ABS markets on behalf of our clients. In addition, our Chief Investment Office (“CIO”) invests in the ABS markets as principal. We are also a servicer for residential mortgage loans and auto loans owned by unaffiliated third parties and are active in providing derivatives to ABS issuers and investors. In addition to these activities in the ABS markets, we act as sponsor, underwriter, placement agent and/or dealer with respect to other structured products, such as collateralized loan and debt obligations and municipal tender option bond transactions.

In each of these businesses and across securitized and structured products, JPMorgan Chase has a leading market position. For example, JPMorgan Chase is the third largest originator and servicer of residential mortgage loans in the United States, with over 10% market share. In addition, as an

issuer in 2010, JPMorgan Chase was the second largest bank originator of automobile loans and leases in the United States, the second largest originator of credit card receivables in terms of general purpose credit card receivables outstanding and sales volume, and the largest sponsor in the CMBS market. In addition, prior to the collapse of the securitization market during the recent residential mortgage crisis, JPMorgan Chase was one of the largest issuers of private-label RMBS in the United States. As an underwriter and dealer, J.P. Morgan ranked #1 in the ABS and CMBS league tables at the end of the first quarter of 2011. Finally, JPMorgan Chase is the #1 bookrunner in syndicated loans.³⁶⁶

Other major banking organizations are similarly involved in shadow banking activities. To the extent that MMFs are viewed as part of the shadow banking system, banks are major players there too—approximately one-half of all MMF assets are held in bank-affiliated MMFs.

In the past, banks have conducted their shadow banking activities mainly in off-balance sheet vehicles.³⁶⁷ But that does not make these activities any less a part of the regulated banking system. Federal banking regulators have established rules prescribing which activities may be conducted off or on bank balance sheet and have issued supervisory guidance and manuals for bank examiners on how to inspect these bank “shadow banking” activities. As noted in the body of this paper, the Fed and other banking agencies recently required banking organizations to consolidate their ABCP conduits on their balance sheets for regulatory capital purposes.

Fed Chairman Bernanke has recognized that banks play an important role in ABCP and other structured finance mechanisms that are the hallmarks of the shadow banking system:

Although structured credit products and special-purpose investment vehicles may be viewed as providing direct channels between the ultimate borrowers and the broader

³⁶⁶ Letter dated July 14, 2011, from JPMorgan Chase & Co. to the Federal Reserve Board and other banking agencies concerning the agencies’ risk retention proposal.

³⁶⁷ As a result of recent accounting changes, certain activities will be brought back on bank balance sheets. See discussion of ABCP capital requirements elsewhere herein.

capital markets, thereby circumventing the need for traditional bank financing, banks nevertheless played important roles in this mode of finance. Large money-center banks and other major financial institutions (which I will call “banks,” for short) underwrote many of the loans and created many of the structured credit products that were sold into the market. Banks also supported the various investment vehicles in many ways, for example, by serving as advisers and by providing standby liquidity facilities and various credit enhancements.³⁶⁸

The shadow banking system is not something separate and apart from the banking system but rather is an integral part of it. Banking organizations are key players in the shadow banking system and indeed largely invented it and expanded it to its current form. Respected economists have recognized that banks have transformed themselves into shadow banks:

[W]e have known for a long time that the banking system was metamorphosing into an off-balance sheet and derivatives world—the shadow banking system.³⁶⁹

The leading paper on the shadow banking system—“Shadow Banking” by Fed researchers—explains how banking organizations came to be a predominant part of the shadow banking system. Although not the paper’s intent, it demonstrates how misleading it is to conceive of the shadow banking system as an aberration of the financial markets occurring outside of the banking system. The paper bears quoting at length:

The principal drivers of the growth of the shadow banking system have been the transformation of the largest banks since the early-1980s from low return on-equity (RoE) utilities that originate loans and hold and fund them until maturity with deposits, to high RoE entities that originate loans in order to warehouse and later securitize and distribute them, or retain securitized loans through off-balance sheet asset management

³⁶⁸ Federal Reserve Chairman Ben S. Bernanke, “Financial Markets, the Economic Outlook, and Monetary Policy,” Remarks before Women in Housing and Finance and Economic Club, January 10, 2008.

³⁶⁹ Gary B. Gorton, “The Panic of 2007,” NBER Working Paper No. 14358, September 2008 at 1.

vehicles. In conjunction with this transformation, the nature of banking changed from a credit-risk intensive, deposit-funded, spread-based process, to a less credit-risk intensive, but more *market*-risk intensive, wholesale funded, fee-based process.

The transformation of banks occurred within the legal framework of financial holding companies (FHC), which through the acquisition of broker-dealers and asset managers, allowed large banks to transform their traditional process of hold-to-maturity, spread-banking to a more profitable process of originate-to-distribute, fee-banking. **The FHC concept was legitimized by the abolishment of the Glass-Steagall Act of 1932, and codified by the Gramm-Leach-Bliley Act of 1999.**

The genesis of the FHC concept can be traced back to the gradual erosion of banks’ “specialness” since the 1970s on both their asset and liability sides. This erosion occurred due to the entry and growth of an army of specialist non-banks since the late-1970s into the businesses of (1) credit intermediation (for example, finance companies) and (2) retail and institutional cash management (for example, money market mutual funds), each of them representing important financial innovations and examples of gains from specialization. Combined with the high costs and restrictions imposed by regulators on banks, growing competition from specialist non-banks put increasing pressure on banks’ profit margins. Interestingly, banks dealt with these pressures by starting to acquire the very specialist non-bank entities that were posing a competitive threat, and gradually shifted many of their activities related to credit intermediation into these newly acquired, less-regulated, non-bank subsidiaries—or shadow banks. Eventually, what was regulated, restricted and “innovated” out of the banks found its way back into them through acquisitions.

Through these acquisitions banks changed the way they lent, and became much like manufacturing companies, originating loans with the intention of selling them rather than holding them through maturity. Manufacturers make products to sell, not to keep them, and the price at which they decide to make products is determined by what they are worth in the market. An additional development that was instrumental in changing banks’ behavior was the rise of an active secondary loan market, which helped banks determine the true cost of holding loans versus selling them. Over time, the largest banks became more willing to lend if they knew they could sell loans at a gain.

The rise of this approach to lending elevated the prominence of the portfolio management function within banks in the management of bank balance sheets, overtaking the treasury function as the “heart” of the bank. Portfolio management started to decide which assets were retained and which assets were sold, and charged originators (both internal and external) the replacement cost of balance sheet for warehoused assets. Modern banks “rent” their balance sheets, and set their “rents” based on the replacement cost of their balance sheets (see, for example, Dudley (2007)).

This change in the nature of banking was initially “inspired” by the securitization process of conforming mortgages through the GSEs, and was extended to virtually all forms of loans and “perfected” into a securitization-based, shadow credit intermediation process over time.

The shadow credit intermediation process involves the vertical (functional) slicing of the traditional bank lending process into distinct steps, and the horizontal (risk and term) tranching of loan pools, whereby each of these functions and activities were conducted from those on- or off-balance sheet corners of an FHC and in a manner that required the least amount of capital to be held against them. Similarly, the funding of the term and risk slices of loan pools was conducted from those corners of the holding company and in a manner that was the most capital efficient. Due to the global nature of most FHCs, these activities were also conducted from jurisdictions that had the most lenient oversight of certain types of functions, with the origination, warehousing and securitization of loans conducted mainly from New York, and the funding of final products (ABS intermediation) conducted mainly from London and other offshore centers.

I.4.2.1 The Credit Intermediation Process of Financial Holding Companies

The vertical and horizontal slicing of credit intermediation was conducted through the application of a range of off-balance sheet securitization and asset management techniques (see Exhibit 8), which **enabled FHC-affiliated banks to conduct lending with less capital** than if they had retained loans on their balance sheets. This process contributed greatly to the improved RoE of banks, or more precisely, the RoE of their holding companies.

Thus, whereas a traditional bank would conduct the origination, funding and risk management of loans on one

balance sheet (its own), an FHC would (1) originate loans in its bank subsidiary, (2) warehouse and accumulate loans in an off-balance sheet conduit that is managed by its broker-dealer subsidiary, is funded through wholesale funding markets, and is liquidity-enhanced by the bank, (3) securitize loans via its broker-dealer subsidiary by transferring them from the conduit into a bankruptcy-remote SPV, and (4) fund the safest tranches of structured credit assets in an off-balance sheet ABS intermediary (a structured investment vehicle (SIV), for example) that was managed from the asset management subsidiary of the holding company, is funded through wholesale funding markets and is backstopped by the bank (see Exhibit 9).¹⁷

Note that the just described credit intermediation process does not refer to the “life-cycle” of a pool of loans originated by an FHC’s bank—legally, a self-originated loan pool could not pass through this process. Rather it refers to the processing and intermediation of loans originated by third parties on a system-wide level. The example highlights **three important aspects of the changed nature of lending in the U.S. financial system**, especially for residential and commercial mortgage credit.

First, the process of lending and the uninterrupted flow of credit to the real economy is no longer reliant on banks only, but on a process that spanned a network of banks, broker-dealers, asset managers and shadow banks—**all under the umbrella of FHCs**—funded through wholesale funding and capital markets globally.

Second, **a bank subsidiary’s** only direct involvement in an FHC’s credit intermediation process is at the loan origination level. Its indirect involvements are broader, however, **as it acts as a lender of last resort** to the subsidiaries and off-balance sheet shadow banks involved in the warehousing and processing of loans, and the distribution and funding of structured credit securities, in case they cannot obtain funding in wholesale funding markets. Strikingly, despite the fact that FHC’s credit intermediation process depended on at least four entities other than the bank, only the bank subsidiary of an FHC had access to the Federal Reserve’s discount window and benefited from liability (deposit) insurance from the government, but not the other subsidiaries or their shadow banks (hence “internal” shadow banking sub-system). Moreover, restrictions govern the amount of funds a bank can “transfer” to other subsidiaries of the holding company, not

only in the normal course of business, but also if it borrows from the discount window.

Third, lending became a capital efficient, fee-rich, high-RoE endeavor for originators, structurers and ABS investors, enabled by the symbiosis between banks, broker-dealers, asset managers and shadow banks. As the financial crisis of 2007-2009 would show, however, the capital efficiency of the process was highly dependent on liquid wholesale funding and debt capital markets globally, and that any paralysis in markets could turn banks' capital *efficiency* to capital *deficiency* virtually overnight, with systemic consequences.

This interpretation of the workings of FHCs is radically different from the one that emphasizes the benefits of FHCs as "financial supermarkets". According to that widely-held view, the diversification of the holding companies' revenues through broker-dealer and asset management activities makes the banking business more stable, as the holding companies' banks, if need be, could be supported by net income from other operations during times of credit losses. In our interpretation, the broker-dealer and asset management activities are not parallel, but serial and complementary activities to FHCs' banking activities.

The serial as opposed to parallel nature of the linkage between the broker-dealer and asset management subsidiaries and the commercial bank subsidiary within an FHC is not necessarily bad, and neither is the credit intermediation process described above. However, they became bad (in some cases), as capital requirements to manage these linkages and conduct the process prudently were circumvented through three channels of arbitrage. These were: (1) cross-border regulatory systems arbitrage, (2) regulatory, tax and economic capital arbitrage, and (3) ratings arbitrage.

These arbitrage opportunities emerged from the fractured nature of the global financial regulatory framework; the dependence of capital adequacy rules (Basel II) on credit ratings; and a collection of one-off, uncoordinated decisions by accounting and regulatory bodies regarding the accounting and

regulatory capital treatment of certain exposures and lending and asset management activities.³⁷⁰

This description of the role of banking organizations in the shadow banking system helps explain why the Fed is so concerned about the potential for “runs” on MMFs. To the extent that MMFs invest in assets generated by the shadow banking system, a run on MMFs is a run on the shadow banking system, and a run on the shadow banking system is a run on banks. That may explain why the Fed would like to impose a capital requirement on MMFs—to support the shadow banking system, which is the “real” banking system.

Fed officials have conceded that the distinction between traditional banking and “shadow banking” has become “blurred.”³⁷¹ Some Fed officials propose to restrict the activities of banking organizations within narrow limits in order to limit their shadow banking activities.³⁷²

Economist Gary Gorton has recognized the shadow banking system as fundamentally part of the banking system:

The “shadow banking system,” at the heart of the current credit crisis is, in fact, a real banking system – and is vulnerable to a banking panic. Indeed, the events starting in August 2007 are a banking panic.³⁷³

* * * * The current crisis has its roots in the transformation of the banking system, which involved two important changes. First, derivative securities have grown exponentially in the last twenty-five years, and this has created an enormous demand for collateral, i.e., informationally-insensitive debt. Second,

³⁷⁰ Zoltan Pozsar, Tobias Adrian, Adam Ashcraft, Hayley Boesky, “Shadow Banking,” Federal Reserve Bank of New York Staff Reports, Staff Report no. 458, July 2010, at 22-29.

³⁷¹ *Id.* at 9 (“The holding of shadow liabilities by institutions inside the safety net makes it difficult to draw bright lines between the traditional and shadow credit intermediation.” See also Thomas M. Hoenig and Charles S. Morris, Federal Reserve Bank of Kansas City, “Restructuring the Banking System to Improve Safety and Soundness,” May 2011.

³⁷² Hoenig, *Id.*

³⁷³ Gary B. Gorton, “Slapped in the Face by the Invisible Hand: Banking and the Panic of 2007,” prepared for the Federal Reserve Bank of Atlanta’s 2009 Financial Markets Conference: Financial Innovation and Crisis, May 9, 2009, at abstract.

there has been the movement of massive amounts of loans originated by banks into the capital markets in the form of securitization and loan sales. Securitization involves the issuance of bonds (“tranches”) that came to be used extensively as collateral in sale and repurchase transactions (“repo”), freeing other categories of assets, mostly treasuries, for use as collateral for derivatives transactions and for use in settlement systems. As discussed above, repo is a form of banking in that it involves the “deposit” of money on call (as repo is short-term, e.g., mostly over night) backed by collateral. The current panic centered on the repo market, which suffered a run when “depositors” [i.e. MMFs] required increasing haircuts, due to concerns about the value and liquidity of the collateral should the counterparty ‘bank’ fail.³⁷⁴ * * * *

The reality is that the “shadow banking system” is, in fact, banking. It serves an important function, which should be recognized and protected.³⁷⁵ * * * *

The evolution of banking in the last 25 years is due to a number of forces, but the main point here is that the shadow banking system that emerged is a real banking system.³⁷⁶

* * * *[S]ecuritization is a form of off-balance sheet banking.³⁷⁷

A. The Fed and Other Bank Regulators Authorized Banking Organizations to Become “Shadow Banks”

Banking organizations created the shadow banking system. Moreover, they did so with the approval and support of the Fed and other banking regulators. The regulators viewed these activities as a way for banks to diversify and compete with emerging financial innovations that undermined the traditional role of banks.

³⁷⁴ *Id.* at 4.

³⁷⁵ *Id.* at 5.

³⁷⁶ *Id.* at 23.

³⁷⁷ *Id.* at 24.

Ultimately, under Fed auspices, the banking industry absorbed these competitors and transformed itself into what Fed officials now call the shadow banking system.³⁷⁸

A number of commentators have blamed the financial crisis on the “repeal” of the Glass-Steagall Act by the Gramm-Leach-Bliley Act (“GLBA”) in 1999. This perception is based on the mistaken belief that, but for the GLBA, banking organizations would not have been able to conduct “shadow banking” activities of the type that were at the core of the crisis. This perception is not accurate inasmuch as none of the “shadow banking” activities were prohibited by the Glass-Steagall Act prior to enactment of the Gramm-Leach-Bliley Act, as explained below.³⁷⁹ Nevertheless, it is true that the Glass-Steagall Act would have prohibited such activities had the Fed and other banking regulators interpreted the Glass-Steagall Act differently during the 1980s and 1990s.

The Fed and other banking regulators permitted banking organizations to diverge from their traditional activities notwithstanding objections by the securities industry that such activities violated the Glass-Steagall Act. Among other things, the Fed approved applications by bank holding companies to privately place and underwrite and deal in commercial paper. The Fed and Office of the Comptroller of the Currency (“OCC”) permitted banks to securitize and sell their assets and to guarantee the resulting securities. These actions required the regulators to interpret the Glass-Steagall Act and their interpretations were the subject of extensive litigation in the courts. The regulators also changed their capital rules to reduce the amount of capital required for commercial paper activities of banks and their affiliates. These

³⁷⁸ All of the major securities broker-dealers and investment banks that once competed with banks have been acquired by or become bank holding companies and thus been absorbed into the banking system.

³⁷⁹ In fact, the GLBA repealed only two of the four operative sections of the Glass-Steagall Act—the prohibition on affiliations between banks and firms engaged principally in securities underwriting and dealing and the prohibition on management interlocks between banks and firms primarily engaged in such activities. Glass-Steagall Act §§ 20 and 32, 12 U.S.C. § 377 and 78 (repealed). The two remaining Glass-Steagall Act provisions generally prevent banks from purchasing equity securities for their own account or from underwriting and dealing such securities, with certain exceptions, and prohibit deposit taking by nonbank securities firms. Glass-Steagall Act §§ 16 and 21, 12 U.S.C. §§ 24(Seventh) and 378.

regulatory actions made it possible for the shadow banking system to arise within the banking system.

If “repeal” of the Glass-Steagall Act is to blame for the financial crisis, the Fed and other banking regulators “repealed” it.

1. The Fed Approved Commercial Paper Activities Notwithstanding Arguments That Such Activities Violated the Glass-Steagall Act

Banks entered the commercial paper market in the 1970s as private placement agents, supported by a Federal Reserve Board staff study that included a legal analysis of the permissibility of such activities under the Glass-Steagall Act.³⁸⁰ The staff study concluded that the activity of a financial intermediary in a private placement transaction does not constitute “underwriting” for purposes of the Glass-Steagall Act because that term connotes a public offering of securities and a private placement does not involve a public offering. The Comptroller of the Currency and the FDIC joined the Board in submitting a report to Congress reaching the same conclusion.³⁸¹

In 1979, the Securities Industry Association (“SIA”) petitioned the Board to issue a cease and desist order prohibiting Bankers Trust Company, a state member bank, from acting as agent for issuers in privately placing commercial paper on the basis that such activity violated sections 16 and 21 of the Glass-Steagall Act. The Board declined to prohibit such activities based on its view that commercial paper did not constitute a security for purposes of the Glass-Steagall Act but rather was similar to a commercial bank loan.³⁸²

³⁸⁰ Federal Reserve Board Staff Study, Commercial Bank Private Placement Activities 81-99 (June 1977).

³⁸¹ Comptroller of the Currency, FDIC, Federal Reserve Board, Commercial Bank Private Placement Activities (1978).

³⁸² Board Letter dated September 26, 1980, to John F. Liftin and Harvey L. Pitt, enclosing Federal Reserve Board Statement Regarding Petitions to Initiate Enforcement Action. The Board also issued a policy statement providing guidelines to govern state member bank private placement activities. Board Press Release dated May 28, 1981. The policy statement stated that banks should not place commercial paper with fiduciary accounts or the bank’s parent holding company. The policy statement permitted banks to purchase commercial paper for

The SIA then sued the Fed, arguing that such activities violated the Glass-Steagall Act. The U.S. Supreme Court decided to hear the case (i.e., granted certiorari) “because of the importance of the issue for the Nation’s financial markets.”³⁸³ The Court ruled in favor of the SIA, stating:

Because commercial paper falls within the plain language of the Act, and because the inclusion of commercial paper within the terms of the Act is fully consistent with its purposes, commercial paper is a “security” under the Act and therefore is subject to its proscriptions. . . .

In enacting the Act, Congress’ worries about commercial-bank involvement in investment-bank activities reflected two general concerns. The first of these concerns was that a commercial bank might experience large losses from investing its funds in speculative securities. In addition to this concern, however, Congress focused on the conflicts of interest that arise when a commercial bank goes beyond the business of acting as a fiduciary or managing agent and develops a pecuniary interest in marketing securities. The Act’s design reflects the congressional perception that some commercial- and investment-banking activities are fundamentally incompatible and justify a strong prophylaxis. . . .

The Board’s interpretation effectively converts a portion of the Act’s broad prohibitions into a system of administrative regulation, since by concluding that commercial paper is not covered by the Act, the Board in effect has obtained authority to regulate the marketing of commercial paper under its general supervisory power over member banks. . . .

The facts that commercial paper is relatively low risk, that commercial banks traditionally have acquired commercial paper for their own accounts, or that commercial paper is sold

their own account, likening such purchases to commercial loans: “With respect to the possibility that a bank’s commercial paper selling activities may lead the bank into investing its funds in imprudent investments, the Board recognizes that a bank’s selling activity may result in the purchase of some commercial paper with the bank’s own funds. However, the Board notes that banks have traditionally been permitted to purchase commercial paper for their own account and such purchases have been treated for supervisory purposes as commercial loans.”

³⁸³ Securities Industry Association v. Board of Governors of the Federal Reserve System, 468 U.S. 137 (1984).

largely to “sophisticated” investors, do not justify the Board’s interpretation of the Act. There is little evidence to suggest that Congress intended the Act’s prohibitions on underwriting to depend on the safety of particular securities.

The Supreme Court noted that the Glass-Steagall Act was prompted by concerns about “the inherent risks of the securities business” and the “subtle hazards” that arise when a bank becomes involved in such activities. The Court’s admonition is quoted here at length:

Congressional worries about commercial-bank involvement in investment-bank activities reflected two general concerns. The first was the inherent risks of the securities business. Speculation in securities by banks and their affiliates during the speculative fever of the 1920’s produced tremendous bank losses when the securities markets went sour. In addition to the palpable effect that such losses had on the assets of affected banks, they also eroded the confidence of depositors in the safety of banks as depository institutions. This crisis of confidence contributed to the runs on the banks that proved so devastating to the solvency of many commercial banks.

But the dangers that Congress sought to eliminate through the Act were considerably more than the obvious risk that a bank could lose money by imprudent investment of its funds in speculative securities. The legislative history of the Act shows that Congress also focused on “the more subtle hazards that arise when a commercial bank goes beyond the business of acting as fiduciary or managing agent and enters the investment banking business.” . . . The Glass-Steagall Act reflects the 1933 Congress’ conclusion that certain investment-banking activities conflicted in fundamental ways with the institutional role of commercial banks.

The Act’s legislative history is replete with references to the various conflicts of interest that Congress feared to be present when a single institution is involved in both investment and commercial banking. Congress observed that commercial bankers serve as an important source of financial advice for their clients. They routinely advise clients on a variety of financial matters such as whether and how best to issue equity or debt securities. Congress concluded that it was unrealistic to expect a banker to give impartial advice about such matters if he stands to realize a profit from the underwriting or distribution of securities.

. . . Congress also expressed concern that the involvement of a commercial bank in particular securities could compromise the objectivity of the bank's lending operations. Congress feared that the pressure to dispose of an issue of securities successfully might lead a bank to use its credit facilities to shore up a company whose securities the bank sought to distribute. . . . Some in Congress feared that a bank might even make unsound loans to companies in whose securities the bank has a stake or to a purchaser of securities that the bank seeks to distribute. Alternatively, a bank with loans outstanding to a company might encourage the company to issue securities through the bank's distribution system in order to obtain the funds needed to repay bank loans. . . . Congress also faced some evidence that banks had misused their trust departments to unload excessive holdings of undesirable securities.

The Act's design reflects the congressional perception that certain investment-banking activities are fundamentally incompatible with commercial banking. . . .

After hearing much testimony concerning the appropriate form of a legislative response to the problems, Congress rejected the view of those who preferred legislation that simply would regulate the underwriting activities of commercial banks. . . . Such an approach was not without costs in terms of efficiency and competition, but the Act reflects the view that the subtle risks created by mixing the two activities justified a strong prophylaxis. . . .

In this respect, we find ourselves in substantial agreement with petitioners' [SIA] suggestion that the Board's interpretation effectively converts a portion of the Act's broad prohibition into a system of administrative regulation. By concluding that commercial paper is not covered by the Act, the Board in effect has obtained authority to regulate the marketing of commercial paper under its general supervisory power over member banks.

The Board acknowledges that "the sale of third party commercial paper by a commercial bank could involve, at least in some circumstances, practices that are not consistent with principles of safe banking." . . . In response to these concerns, the Board issued guidelines for state member banks explaining the circumstances in which they properly may place the commercial paper of third parties. . . . Although the guidelines may be a sufficient regulatory response to the potential problems, Congress rejected a regulatory approach

when it drafted the statute, and it has adhered to that rejection ever since.

The Board's "functional analysis" misapprehends Congress' concerns with commercial bank involvement in marketing securities. . . .The concern about commercial-bank underwriting activities derived from the perception that the role of a bank as a promoter of securities was fundamentally incompatible with its role as a disinterested lender and adviser.

This Court explained in *Camp*: "In sum, Congress acted to keep commercial banks out of the investment banking business largely because it believed that the promotional incentives of investment banking and the investment banker's pecuniary stake in the success of particular investment opportunities was destructive of prudent and disinterested commercial banking and of public confidence in the commercial banking system."

At the administrative level, the Board expressly chose not to consider whether these concerns are present when a commercial bank has a pecuniary interest in promoting commercial paper. . . . Although the Board indicates before this Court that such activities do not implicate the concerns of the Act, we are unpersuaded by this belated assertion.

In adopting the Act, for example, Congress concluded that a bank's "salesman's interest" in an offering "might impair its ability to function as an impartial source of credit." [] In the commercial-paper market, where the distribution of an issue depends heavily on the creditworthiness of the issuer, a bank presumably can enhance the marketability of an issue by extending backup credit to the issuer. Similarly, as a commercial bank finds itself in direct competition with other commercial-paper dealers, it may feel pressure to purchase unsold notes in order to demonstrate the reliability of its distribution system, even if the paper does not meet the bank's normal credit standards. Recognizing these pressures, this Court stated in *Camp*: "When a bank puts itself in competition with securities dealers, the bank must make an accommodation to the kind of ground rules that Congress firmly concluded could not be prudently mixed with the business of commercial banking." * * * *

In addressing these concerns before this Court, the Board focuses primarily on the extremely low rate of default on prime-quality commercial paper. We do not doubt that the risk of default with commercial paper is relatively low—lower perhaps than with many bank loans. For several reasons,

however, we find reliance on this characteristic misplaced. First, it is not clear that the Board's exemption of commercial paper from the proscriptions of the Act is limited to commercial paper that is "prime." The statutory language admits of no distinction in this respect, and the logic of the Board's opinion must exempt all commercial paper from the prohibition on underwriting by commercial banks. Second, as described above, it appears that a bank can make a particular issue "prime" simply by extending backup credit to the issuer. Such a practice would seem to fit squarely within Congress' concern that banks would use their credit facilities to aid in the distribution of securities.

More importantly, however, there is little evidence to suggest that Congress intended the Act's prohibitions on underwriting to depend on the safety of particular securities. . . . The Act's prophylactic prohibition on underwriting reflects Congress' conclusion that the mere existence of a securities operation, "no matter how carefully and conservatively run, is inconsistent with the best interests" of the bank as a whole. . . .

In this regard, the Board's focus on the fact that commercial banks traditionally have acquired commercial paper for their own accounts is beside the point. It is clearly true, as the Board asserts before this Court, that Congress designed the Glass-Steagall Act to cause banks to invest more of their funds in short-term obligations like commercial paper instead of in longer term and more speculative securities. By so doing, Congress hoped to enhance the liquidity of funds and protect bank solvency. But the authority to discount commercial paper is very different from the authority to underwrite it. The former places banks in their traditional role as a prudent lender. The latter places a commercial bank in the role of an investment banker, which is precisely what Congress sought to prohibit in the Act. . . .

The Board also seeks comfort in the fact that commercial paper is sold largely to "sophisticated" investors. Once again, however, the Act leaves little room for such an ad hoc analysis. In its prohibition on commercial-bank underwriting, the Act admits of no exception according to the particular investment expertise of the customer. The Act's prohibition on underwriting is a flat prohibition that applies to sales to both the knowledgeable and the naive. Congress expressed concern that commercial-bank involvement in securities operations threatened the ability of commercial banks to act as "financial confidant and mentor" for both "the poor widow" and "the great corporation." . . .

Notwithstanding the Supreme Court’s ruling, the Fed nevertheless permitted bank holding companies to privately place commercial paper by determining that the private placement of commercial paper does not constitute “underwriting” for purposes of the Glass-Steagall Act.³⁸⁴ Later, the Board authorized bank holding companies to underwrite and deal in commercial paper and asset-backed securities provided that such activities did not constitute more than a certain percentage of the company’s total revenue.³⁸⁵

In approving commercial paper placement activities, the Board concluded that such activities were an extension of bank lending activities and offered public benefits:

After carefully considering the facts of record, the Board concludes that placing commercial paper with institutional purchasers, as the agent of third party issuers, is closely related to banking, because banks provide services that are operationally and functionally so similar to the proposed services that banking organizations are particularly well equipped to provide the proposed services. As noted below, the proposed activity is a natural extension of commercial lending activities traditionally conducted by banks, involving little additional risk or new conflicts of interest, and potentially yielding significant public benefits in the form of increased competition and convenience. On this basis, the Board has urged the Congress to authorize bank holding companies to engage in a wider range of activities than that proposed here—underwriting and distributing commercial paper as principals, underwriting certain other types of securities that are very

³⁸⁴ The SIA again challenged the Board’s action as contrary to the Glass-Steagall Act. The appellate court again accorded deference to the Board but the Supreme Court this time did not grant certiorari. *Securities Industry Association v. Board of Governors*, 807 F.2d 1052 (D.C. Cir. 1986), *cert. denied*, 483 U.S. 1005 (1987).

³⁸⁵ *Citicorp/J.P. Morgan & Co. Incorporated/Bankers Trust New York Corporation*, 73 Fed. Res. Bull. 473 (1987); *Chemical New York Corporation et al.*, 73 Fed. Res. Bull. 731 (1989). The percentage initially was five percent. The Board subsequently increased the percentage to 10 percent and then 25 percent. The Board also imposed certain “firewalls” to separate such activities from affiliated banks, but subsequently eliminated them. The Board’s orders were challenged by the Securities Industry Association but upheld by the courts. By the end of 1996, 41 subsidiaries of bank holding companies were engaged in underwriting and dealing of commercial paper and other securities.

similar to obligations currently underwritten by banks, *i.e.*, municipal revenue bonds and mortgage related securities, and sponsoring mutual funds.

. . . . Placing commercial paper as the agent of the issuer is an activity that is similar in function to the traditional commercial banking function of arranging loan participations or syndications with other banks and institutional lenders. Although commercial paper technically is a security for purposes of the Glass-Steagall Act, this kind of instrument has many of the characteristics of a traditional commercial loan. A commercial loan in its traditional form represents a short-term extension of credit to a business to finance working capital needs. [] Because of its short term, commercial paper is customarily held to maturity—like a commercial loan. There is virtually no secondary market. Because of its large denominations, commercial paper is generally purchased only by large, financially sophisticated institutions, such as trust departments of banks, money market mutual funds, insurance companies, and pension funds.

. . . . [T]he Board concludes that the proposed commercial paper placement activity is so functionally and operationally similar to the role of a bank that arranges a loan participation or syndication that banking organizations are particularly well suited to perform the commercial paper placement function.

. . . . *Public Benefits.* The Board believes that consummation of this proposal will produce significant benefits to the public in the form of increased competition and greater convenience and efficiency. Company will offer the proposed commercial paper placement service on a nationwide basis. In light of the fact that currently the commercial paper market is dominated by a small number of dealers, the expansion of Applicant's commercial paper activities can only foster competition in that market. Moreover, the establishment of this activity in a holding company subsidiary will allow applicant to provide greater convenience to customers of the service and to offer the service more efficiently on a nationwide scale. The Board considers these two factors—increased competition and more

convenient service to investors and borrowers—to be substantial and important public benefits.³⁸⁶

2. The Fed and Other Bank Regulators Approved Bank Securitization Activities Notwithstanding Arguments That Such Activities Violated the Glass-Steagall Act

The Fed and the Office of the Comptroller of the Currency authorized banking organizations to engage in securitization activities, including the securitization of ABCP conduits, beginning in the 1980s. The agencies approved such activities over objections by the securities industry that the activities violated the Glass-Steagall Act.³⁸⁷

In 1986, the OCC authorized a national bank to issue, underwrite, and deal in bonds partially collateralized by pools of non-federally insured conventional residential mortgage loans.³⁸⁸ The OCC also expanded the scope of permissible national bank underwriting of securitized assets by stating that national banks may securitize and sell their mortgage assets and “any other lawfully acquired assets.”³⁸⁹ The Comptroller opined that securitization is a permissible means of selling bank assets under the National Bank Act and, as such, was outside the reach of the Glass-Steagall Act.

The Comptroller’s ruling was challenged by the Securities Industry Association, which argued that the ruling permitted national banks to underwrite and deal in securities in violation of the Glass-Steagall Act. At issue was a program whereby a national bank created a pool of its conventional, fixed-rate residential

³⁸⁶ Federal Reserve Board Order dated Dec. 24, 1986 approving application by Bankers Trust New York Corporation to Engage in Commercial Paper Placement to a Limited Extent, 73 Fed. Res. Bull.138 (1986).

³⁸⁷ See OCC Interpretive Letter No. 1035 (July 21, 2005) (“The OCC has long held that national banks may use asset securitization as a means of selling or borrowing against their mortgage or other loan assets, and engage in securitization activities. Securitization provides banks an efficient tool for buying and selling loan assets and thereby increasing a bank’s liquidity, among other advantages. Securitizations carve up the risk of credit losses from the underlying assets.”).

³⁸⁸ OCC Interpretive Letter No. 362 (May 22, 1986).

³⁸⁹ OCC Interpretive Letter No. 388 (June 16, 1987).

mortgage loans that were assigned to a trust. The trust issued pass-through certificates representing fractional undivided interests in the pool that it delivered to the bank in exchange for the mortgage loans. The certificates were registered as securities with the SEC and sold pursuant to a prospectus. In some instances, the bank provided credit support for the certificates by issuing an irrevocable letter of credit limited to no more than ten percent of the mortgage pool. The certificates were distributed in a public underwriting by the bank and other underwriters.

The OCC ruled that the bank's use of mortgage pass-through certificates was a permissible means of selling bank assets under the National Bank Act and, as such, was outside the reach of the Glass-Steagall Act.³⁹⁰ Even if the Glass-Steagall Act were applicable, the OCC concluded, the certificates were not "securities" within the meaning of the Glass-Steagall Act. The OCC treated the certificates as "legally transparent."³⁹¹ Even if the certificates were securities for purposes of the Glass-Steagall Act, the OCC concluded that the bank was not dealing in or underwriting the securities.

The U.S. Court of Appeals for the Second Circuit upheld the Comptroller's ruling.³⁹² The court determined that the Comptroller had correctly concluded that the sale of the certificates by the bank was within the business of banking and that the Glass-Steagall Act was therefore inapplicable.³⁹³ The court stated, "If the activity constitutes the 'business of banking,' then the Glass-Steagall Act prohibitions . . . do not apply."³⁹⁴

The court failed to see any Glass-Steagall "subtle hazards," stating that the "mere fact that the bank has an interest in seeing that its loans are sold does not

³⁹⁰ *Id.*

³⁹¹ That is, because the holders had essentially the same rights, liabilities, and risks as if they were the owners of the underlying assets, the certificates were viewed as substantially the same as the assets.

³⁹² *Securities Industry Association v. Clarke*, 885 F.2d 1034 (2d Cir. 1989), cert. denied, 493 U.S. 1070 (1990).

³⁹³ *Id.*

³⁹⁴ *Id.* at 1048.

implicate” the hazards Glass-Steagall was intended to prevent. Rejecting the analysis of the district court, which had viewed the purpose of the Glass-Steagall Act to protect the investing public, the appellate court stated:

The concerns of the Glass-Steagall Act, however, focus not on protecting the “investing public,” but rather on ensuring the stability of banks and protecting bank depositors.³⁹⁵

The court’s decision effectively sanctioned the sale by a national bank of any type of securitized assets whether originated by the bank or purchased from other lenders.

Following the court’s decision, the OCC in 1988 authorized a bank to issue collateralized mortgage obligations where up to 50 percent of the mortgages were purchased by the bank from unaffiliated parties.³⁹⁶ The OCC subsequently approved numerous asset securitization proposals by national banks.³⁹⁷

The OCC in 1996 amended its rules to provide that a national bank may securitize and sell assets that it holds, as part of its banking business, without limitation as to a percentage of the bank’s capital:

A national bank may securitize and sell assets that it holds, as part of its banking business. The amount of securitized loans and obligations that a bank may sell is not limited to a specified percentage of the bank’s capital and surplus.³⁹⁸

³⁹⁵ *Id.* Protection of investors is the concern of the securities laws, the court declared, rejecting the notion that the Glass-Steagall Act should be applied for that purpose.

³⁹⁶ OCC Interpretive Letter No. 418 (Feb. 17, 1988).

³⁹⁷ See, e.g., OCC Interpretive Letter No. 585 (June 8, 1992) (automobile receivables); OCC Interpretive Letter No. 540 (Dec. 12, 1990) (credit card receivables); OCC Interpretive Letter No. 418, *supra* (mortgage assets); OCC Interpretive Letter No. 417 (Feb. 17, 1988) (mortgage assets); OCC Interpretive Letter No. 416 (Feb. 16, 1988) (leases and auto receivables); Letter dated June 21, 1994, from William P. Bowden, Chief Counsel of the OCC, to J. Virgil Mattingly, Jr., General Counsel, Federal Reserve Board, and letters cited therein; OCC Interpretive Letter No. 1035 (July 21, 2005).

³⁹⁸ 12 C.F.R. § 1.3(g). See also OCC Interpretive Letter No. 1133 (national bank may securitize both assets it originates and assets it acquires from others). See also 12 C.F.R. § 1.3(h) (national bank may purchase and sell shares in pooled investment vehicles whose assets consist exclusively of assets that the bank may purchase and sell for its own account).

The OCC stated that such activities could enhance a bank's safety and soundness:

The ability of banks to sell conventional bank assets through the issuance and sale of certificates evidencing interests in pools of the assets provides flexibility that can enhance banks' safety and soundness. Asset securitization provides an important source of liquidity by allowing banks to convert relatively illiquid assets into instruments with maturities and other features that investors are readily willing to purchase. Another important benefit is the increased credit available, due to the fact that a bank may make more loans with a given level of capital (when the assets are removed from the bank's balance sheet) and may diversify its lending into new markets without incurring undue risk. Also, a bank is less dependent on deposits to fund its loans, improving bank profitability, with positive implications for reducing bank failure rates and minimizing draws on the deposit insurance funds."³⁹⁹

The OCC's regulations authorize national banks to invest for their own account in highly rated securitized assets (including ABCP) provided the aggregate par value of the securities issued by any one issuer held by the bank does not exceed 25 percent of the bank's capital and surplus.⁴⁰⁰

The Fed similarly permitted state member banks under its supervision to underwrite and deal in securities representing interests in pools of mortgage loans originated by the bank or purchased from others.⁴⁰¹ The Fed also permitted underwriting subsidiaries of bank holding companies to underwrite and deal in securitized assets of affiliated banks provided the securities were rated by an unaffiliated nationally recognized statistical rating organization.⁴⁰² The Fed stated that public benefits could be expected to result from allowing banking organizations to

³⁹⁹ 60 Fed. Reg. 66,152, at 66,155 (Dec. 21, 1995).

⁴⁰⁰ 12 C.F.R. § 1.3(f).

⁴⁰¹ Board Letter dated January 17, 1995, to Meridian Bancorp, Inc.

⁴⁰² Board Order dated September 21, 1989. The Board also permitted securities underwriting subsidiaries of bank holding companies to underwrite unrated securities of affiliates to sophisticated institutional investors. Bankers Trust New York Corporation, 75 Fed. Res. Bull. 829, 835 (1989).

participate to a greater degree in the growing market for securitized banking assets, such as increased competition, greater efficiency, reduced financing costs, increased availability of services to issuers and investors, and market innovation.

The Fed created a “Supervision and Regulation Task Force on Securitization” which published a document in 1990 highlighting the reasons why banking organizations were motivated to engage in securitization activities:

Bypassing Regulatory Costs

In the case of regulated institutions, i.e., banks and thrifts, the selling of assets in such a fashion as to meet the regulatory requirements for removal from the balance sheet might mean substantial cost savings by having avoided capital maintenance requirements, reserve requirements, and deposit insurance premiums. Originating and holding any given loan means maintaining a certain amount of capital in relation to that asset, and maintaining reserves against deposits funding the remainder of the credit. Also, as FDIC insurance premiums are based on deposit balances, they are affected by the funding of that asset with deposits. If, however, an asset can be originated and meet the legal and regulatory accounting requirements for a sale (the latter are discussed in a separate, complementary document entitled “Accounting Issues Relating to Asset Securitization”) and thereby be removed from its books, the costs associated with capital and reserve requirements may have been eliminated, or substantially reduced, by securitization.

A bank may have the systems and loan expertise consistent with further portfolio expansion, but asset growth may often be limited by inadequate supporting capital, or concerns about concentration of risk. Securitization would afford such an institution the ability to take a more aggressive lending posture without being concerned with balance sheet effects. The bank can continue its lending with the intent of securitizing new credits and not decrease its capital ratios.

Funding and Liquidity

Securitization provides originators with an additional source of funding, and is sometimes referred to as furthering “asset-based” liquidity. Often times, securitized issues carry a higher credit rating than the debt obligations of the originator. This is generally achieved by use of what is termed a bankruptcy-remote vehicle such as a trust which acts as a repository for the

assets and issuer, or obligor, of the securities funding those assets. This improved rating (generally AAA) affords the originator savings on funding costs and also substantially broadens the investor base available to the originator. In the case of banks, credit ratings are effectively arbitrated—the credit rating of the asset-backed security is generally greater than that which would be assigned to securities directly issued by the bank and collateralized by those same assets. While there are costs associated with the mechanical process of obtaining that higher rating, often times these costs are less than those associated with direct funding, thereby making securitization a more cost effective means of funding.

The securitization process has taken a set of illiquid loans and converted them into a security with a separate rating, saleable in a secondary market. While the secondary market for these securities (other than those that are mortgage - backed) is not presently very deep, it is certainly deeper than any market for the loans themselves. While the funding/ liquidity benefits described above are perhaps most fully enjoyed by banks securitizing assets, they have also been enjoyed by other corporations as well. Sperry Corporation avoided the costs associated with borrowing directly in the markets under its BBB rating by establishing a separate company or trust to hold the lease receivables it wished to securitize. That entity in turn funded its purchase of those assets by selling its own securities which had a AAA rating.

Asset/Liability Management

Securitization of assets can be used to significantly reduce any interest rate risk associated with an asset/liability mismatch on the part of the originator. For example, during the early 1980's, the cost of funding rose substantially as did the general level of interest rates, and many institutions—thrifts in particular—found themselves funding fixed rate, low-yielding, longer term assets with higher priced, volatile liabilities. At the same time, they had lost the opportunity to make a number of higher quality, short-term loans as large corporate customers have gone directly to the commercial paper markets for funding at cheaper rates.

As might be expected, thrifts have availed themselves of the opportunity to substantially realign their balance sheets via securitization during the recent period of falling interest rates. By selling off thirty-year fixed rate mortgages which were funded with expensive shorter-term deposits, some thrifts have better matched the maturities between their assets and

liabilities. The same holds true for the captive finance subsidiaries of the major automobile makers particularly active in the securitization, or asset sales market. GMAC has securitized a large volume of its automobile paper, moving away from funding via short-term commercial paper towards funding via asset-backed securities with a closer maturity to that of the asset it funds. Securitization is one of the few means available for achieving matched funding, and is sometimes used solely for this reason. The cost of securitizing a package of assets might exceed savings on funding attributable to improved ratings; however, if the matching of asset and liability maturities is a paramount concern, an institution might choose to still securitize the assets in question.

Enhancement of Return on Assets/ Return on Equity

Securitization, in and of itself, can improve a bank's return on assets and equity; however, these returns are substantially augmented by the originator customarily being retained- and paid a fee- to service the assets supporting the related securities. "By securitizing loans, banks can remove assets from their books and either invest the proceeds in a more lucrative venture or begin the loan origination process again and utilize turnover and volume to generate profits." Banks can enhance their returns on both assets and equity, as well as improve capital and leverage ratios, through the removal of assets from the books and recognition of fee income.

Setting aside the controversial issues of excess servicing fees, and "up front" fees which might be taken at the point of sale (discussed in "Accounting Issues Relating to Asset Securitization"), collecting what can sometimes be substantial servicing fees over the life of the security issue on assets removed from the books can improve an institution's reported return on assets and equity. In the case of certain money center banks active in securitizing their assets, the complexion of their earnings has been substantially changed for this very reason. Comparison of 1988 earnings performance to that of 1987 is somewhat distorted as a result. If current asset sales trends continue/ the change in the nature of bank earnings may be expected to become even more pronounced, with even greater dependency on fee income as a source of earnings. A detailed discussion of accounting standards governing fee income may be found in "Accounting Issues Relating to Asset Securitization".

Specialization/ Market Penetration/ Diversification

Securitization allows for substantial gains in these areas. Picture the institution which has made a substantial investment in both developing a staff expertise in lending of a particular type—e.g., credit cards, leveraged buy-outs—as well as the systems requisite for supporting that staff. While the advent of interstate banking opens new markets, a bank’s ability to utilize its expertise is constrained by capital growth, funding capabilities, and concern regarding concentrated exposure in that given area. The ability to originate and then sell assets may afford such an institution an ability to access a broader customer base, a self-funding mechanism for any newly-generated credits, allow it to achieve economies of scale in a given area, and yet not experience an excessive concentration in that area. In fact, the proceeds from the sale of those assets might be employed to purchase asset-backed securities from another party having expertise in some other area to which this institution has limited access.

Simultaneously, the benefits of geographic diversification are accruing to both the originator and potentially the party investing in the asset-backed securities. Dependency on local economies and their cycles may, then, be lessened in the securitization process; when local demand falls off, an institution may either (a), originate assets in other markets where a demand for its specialty continues, and then securitize those credits, or (b), invest funds which have been freed by slackened local demand in asset-backed securities originated in other geographic regions.⁴⁰³

The banking regulators became concerned about the risks of securitization in the 1990s. In 1999, the federal banking agencies issued interagency guidance addressing “significant weaknesses” in the securitization practices of some banks.⁴⁰⁴ The regulators expressed concern about the use of “inappropriate” valuation and modeling methodologies to determine the initial and ongoing value of retained interests and emphasized that retained interests must be supported by documentation of the interest’s fair value utilizing reasonable and conservative valuation assumptions

⁴⁰³ Federal Reserve System, Supervision and Regulation Task Force on Securitization, An Introduction to Asset Securitization, attachment to SR-90-16 (FIS) (May 25, 1990) at 2-6.

⁴⁰⁴ Office of the Comptroller of the Currency, Federal Deposit Insurance Corporation, Federal Reserve Board, Office of Thrift Supervision, Interagency Guidance on Asset Securitization Activities, Dec. 13, 1999.

that can be objectively verified. The regulators identified the following common regulatory reporting errors stemming from securitization activities:

- Failure to include off-balance sheet assets subject to recourse treatment when calculating risk-based capital ratios;
- Failure to recognize retained interests and retained subordinate security interests as a form of credit enhancement;
- Failure to report loans sold with recourse in the appropriate section of the regulatory report; and
- Over-valuing retained interests.

In 2002, the banking regulators issued guidance on “implicit recourse” or “moral recourse” arrangements through which banks provide credit support beyond their contractual obligations in a securitization.⁴⁰⁵ The agencies stated that implicit recourse “can pose a high degree of risk to a banking organization’s financial condition and to the integrity of its regulatory and public financial reports.” The agencies provided guidance as to what types of arrangements constitute implicit recourse and stated that the regulators may require regulatory capital to be held against the entire amount of assets sold as well as require deduction of residual interests from regulatory capital.

Also in 2002, the agencies issued a joint advisory bulletin cautioning that the inclusion of certain covenants in securitization documents would be regarded by the agencies as an unsafe and unsound banking practice.⁴⁰⁶

These actions by the banking regulators show that bank securitization activities had become a core part of the business of banking long before the financial crisis commenced and were not part of some “shadow banking system” operating outside the regulated banking system. Moreover, the banking regulators approved these activities notwithstanding litigation challenging them as contrary to the Glass-Steagall Act. The history of the Glass-Steagall Act thus shows that, to the extent the financial

⁴⁰⁵ See Federal Reserve Board, SR 02-15 (May 23, 2002).

⁴⁰⁶ Interagency Advisory on the Unsafe and Unsound Use of Covenants Tied to Supervisory Actions in Securitization Documents (May 23, 2002).

crisis can be blamed on “repeal” of the Glass-Steagall Act, the banking regulators repealed it.

3. The Fed Did Not Subject ABCP to Reserve Requirements

In 2004, the Federal Reserve Board was asked whether the liabilities of bank-sponsored ABCP would be treated as bank liabilities subject to reserve requirements under the Board’s Regulation D or as demand deposits of the bank under the Board’s Regulation Q. The question arose because of an accounting issuance by the Financial Accounting Standards Board holding that ABCP entities should be consolidated on bank balance sheets.⁴⁰⁷ The Board’s associate general counsel concluded that liabilities of an ABCP conduit would not be treated as deposits of the sponsor bank:

As we understand the facts presented, the purchaser of the commercial paper issued by a DI [depository institution] sponsored ABCP Conduit does not have any direct recourse against the sponsoring DI under either the liquidity facilities or the credit enhancements in the event that the required payments to the purchaser are not made. Rather, the purchaser’s recourse is against the ABCP Conduit itself, which retains its separate corporate character notwithstanding FIN 46 consolidation. Although the purchaser of the ABCP Conduit’s commercial paper presumably knows that the ABCP Conduit has access to the DI’s liquidity facilities and credit enhancements, the commercial paper purchaser does not have any contractual right to obtain access to those facilities or enhancements directly in the event that the ABCP Conduit, for whatever reason, failed to draw upon them to make payments on the commercial paper. In addition, we understand that program documentation to which the commercial paper purchasers are subject expressly provides that the ABCP Conduit commercial paper is not a liability of the sponsoring depository institution. Staff believes that these factors support a determination, under the prior Regulation D Board interpretations and staff opinions, that the commercial paper issued by a DI sponsored ABCP Conduit’s is not a “deposit” (or otherwise a reservable liability) of the DI for purposes of Regulation D. Since such commercial paper is not a “deposit”

⁴⁰⁷ Financial Accounting Standards Board, Consolidation of Variable Interest Entities (FIN 46).

under Regulation D, it is also not a “transaction account” for purposes of Regulation D nor a “demand deposit” for purposes of Regulations D and Q.⁴⁰⁸

4. The OCC Permitted Banks to Guarantee ABCP

The Office of the Comptroller of the Currency in 2008 amended its regulations to recognize the authority of national banks to issue guarantees to their customers and affiliates, including ABCP and other securitization vehicles. The regulation states as follows:

a national bank may guarantee obligations of a customer, subsidiary or affiliate that are financial in character, provided the amount of the bank’s financial obligation is reasonably ascertainable and otherwise consistent with applicable law.⁴⁰⁹

The OCC stated that the issuing bank must be able to determine the extent of its exposure, engage in the activity in a safe and sound manner, and comply with other applicable laws, such as sections 23A and 23B of the Federal Reserve Act. In adopting the regulation, the OCC stated:

The OCC has emphasized that banks must be able to respond to the evolving needs of their customers, provided always that such guarantees be issued and managed in a safe and sound manner. Permitting national banks to exercise their broad authority to act as guarantor or surety benefits customers by giving banks greater ability to facilitate customers’ financial transactions and by providing banks with greater flexibility to provide financial services in evolving markets.⁴¹⁰

⁴⁰⁸ Letter dated Jan. 26, 2004, by Stephanie Martin, Associate General Counsel, Federal Reserve Board.

⁴⁰⁹ 12 C.F.R. § 7.1017(b), as amended in April 2008.

⁴¹⁰ 73 Fed. Reg. 22215, 22226 (April 24, 2008). The OCC noted that a bank must adopt appropriate risk management processes in connection with its guarantee activities: “[A]dequate risk measurement and management processes tailored to manage and control the risks of financial guaranty activities are necessary to ensure that a bank is conducting its financial guaranty activity in a safe and sound manner. These include appropriate standards set by the board of directors, managerial and staff expertise, policies and operating procedures, risk identification and measurement, and ongoing evaluation of the specific guarantees issued; management information systems; and an effective risk control function that oversees and ensures the appropriateness of the risk management process. Such risk measurement and risk

In response to one commenter’s suggestion that the OCC require national banks to conduct financial guarantee activities through separately capitalized subsidiaries, the OCC stated:

The OCC declines to adopt this approach. As indicated above, acting as a guarantor involves the core banking powers of both lending and acting as financial intermediary and is therefore a permissible banking activity that need not be conducted only in a separate legal entity. OCC rules prescribe the appropriate regulatory capital treatment for guarantor activities. Moreover, the circumstances under which the revised provision authorizes guarantor activities—the financial guaranty is reasonably ascertainable in amount and complies with applicable law—are safeguards promoting the conduct of these transactions in a safe and sound manner. Accordingly, it is not necessary to require national banks to conduct this activity in a separately capitalized affiliate.⁴¹¹

5. The Fed Did Not Apply Section 23A Limits to Bank ABCP

Section 23A of the Federal Reserve Act imposes restrictions on transactions between banks and their affiliates.⁴¹² The Act restricts the ability of banks to provide funding to their nonbank affiliates. Generally, a bank may not loan more than 10 percent of its capital to any one affiliate or 20 percent to all affiliates in the aggregate. This restriction applies to “covered transactions” including loans, guarantees, and other means by which a bank supports an affiliate. The Act also imposes collateral requirements and prohibits a bank from purchasing low quality assets from an affiliate. The purpose of section 23A is to protect banks from excessive credit exposure to their nonbank affiliates and to minimize extension of the federal safety net (i.e., federal deposit insurance and liquidity facilities) to nonbank affiliates.⁴¹³

management processes should be of a scope and scale appropriate for the nature and complexity of the bank’s financial guaranty activities.” *Id.*

⁴¹¹ *Id.*

⁴¹² 12 U.S.C. § 371c. Section 23B of the Federal Reserve Act limits bank purchases of assets from affiliates and requires such transactions to be on non-preferential market terms.

⁴¹³ See 67 Fed. Reg. 76,560 (Dec. 12, 2002) (Regulation W), codified at 12 C.F.R. part 223.

The Fed generally does not treat ABCP conduits as affiliates of banks.⁴¹⁴ As non-affiliates, the ABCP conduits are not subject to the section 23A limits on back-up credit or other guarantees from the sponsoring banks. The Fed was presented with the question of how to treat ABCP conduits prior to the crisis, but elected not to issue any formal interpretation. Had the Fed treated ABCP conduits as affiliates, the section 23A limits might have prevented banks from incurring such massive exposure to their conduits.

One academic critic has studied the Fed's section 23A policy and concluded that the Fed "consistently failed to take into account potential systemic implications" of numerous section 23A exemptions it gave to banks prior to the crisis that allowed them to acquire subprime "low quality" assets from affiliates.⁴¹⁵ Professor Omarova argues, for example, referring to Citibank's acquisitions of subprime mortgage assets, that the Fed "repeatedly opted to remove the key legal impediment to such accumulation of risk by exempting Citigroup's transactions from the quantitative and qualitative limitations of section 23A."⁴¹⁶ She states:

The Citigroup example demonstrates the Board's failure to analyze the riskiness of individual transactions in the broader market context. The Board did not seem to connect Citigroup's internal reorganization project with the fact that such consolidation of mortgage operations was one of the important factors fueling the growth of the complex and increasingly risky markets for mortgage-backed securities and collateralized debt obligations ("CDOs"). Concentrating mortgage assets in bank subsidiaries enabled financial conglomerates to leverage banks' access to the federal safety net, higher credit ratings, and a lower cost of capital to create and sell CDOs and other structured products backed by subprime mortgages. However, in considering Citigroup's requests for exemptions, the Board did not inquire into the

⁴¹⁴ If the conduit consists primarily of assets purchased from an affiliate of the bank or the conduit is consolidated on the bank's balance sheet, the conduit could be treated as an affiliate, although there are no Fed interpretive letters to this effect.

⁴¹⁵ Saule T. Omarova, "From Gramm-Leach-Bliley to Dodd-Frank: The Unfulfilled Promise of Section 23A of the Federal Reserve Act," 89 North Carolina Law Rev. 101 (2011).

⁴¹⁶ *Id.* at 130.

broader aspects of the group’s business strategy and did not analyze potential risks that concentrated exposure to subprime mortgage assets posed to the safety and soundness of Citibank, or the depository system as a whole.⁴¹⁷

*** * * The Board’s extensive use of its exemptive authority, especially during the years preceding the recent financial crisis, effectively undermined the statute’s ability to restrict the growth of shadow banking and discourage arbitrage-driven conglomeration.**⁴¹⁸

6. The Fed Similarly Did Not Apply Anti-Tying Restrictions

To the extent the Fed viewed ABCP conduits as non-affiliates of banks, the anti-tying prohibitions of the Bank Holding Company Act similarly did not apply. The Act provides that a bank “shall not in any manner extend credit . . . or fix or vary the consideration” thereof on the condition or requirement that the customer obtain a service from an affiliate of the bank.⁴¹⁹ If ABCP conduits were treated as affiliates, for example, a bank potentially would violate the anti-tying prohibition if it provided a line of credit (or favorable credit terms) to a corporate customer on condition that the customer use the bank’s ABCP conduit and related services to sell its assets. Treatment of ABCP conduits as affiliates of the sponsoring bank might have helped reduce the exposure of banks to their own conduits.

B. Banking Regulators Supervise Bank “Shadow Banking” Activities of Banks

Fed officials often speak of the “unregulated” shadow banking system as if it is something separate from the regulated banking system for which the banking agencies have no regulatory responsibility. As noted, for example, Fed Chairman Bernanke has described “shadow banks” as entities other than regulated depository institutions:

Shadow banks are financial entities other than regulated depository institutions (commercial banks, thrifts, and credit unions) that serve as intermediaries to channel savings into

⁴¹⁷ *Id.* at 131-132.

⁴¹⁸ *Id.* at 185.

⁴¹⁹ 12 U.S.C. § 1971 et seq.

investment. Securitization vehicles, **ABCP vehicles, money market funds**, investment banks, mortgage companies, and a variety of other entities are part of the shadow banking system.⁴²⁰

Treasury Secretary Geithner, in explaining the causes of the financial crisis to Congress, blamed the crisis largely on the “unregulated shadow banking system” operating independently from the regulated banking system:

[O]ur system allowed large institutions to take on excessive risk without effective constraints. In particular, this system allowed the emergence of a parallel financial system—what some have called the shadow banking system. This system operated alongside and grew to be almost as big as the regulated banking system. But it lacked the basic protections and constraints necessary to protect the economy from classic financial failures.

Imagine building a national highway system with two sets of drivers. The first group has to abide by the speed limit, wear seatbelts, buy cars with anti-lock brakes. The second group can drive as fast as they choose with no safety features and without any fear of getting pulled over by the police. Imagine both groups are driving on the same roads. That system would inevitably cause serious collisions, and drivers following the rules of the game would inevitably get hit by drivers who weren't.

A system like that makes no sense. We would never allow it on the roads, so why do we allow it in our economy?⁴²¹

Contrary to the view that shadow banking activities occur outside the regulated banking system, most shadow banking activities are conducted by banking organizations. Banks and their affiliates actively engage in the creation, packaging and sale of securitized assets and commercial paper. As described earlier, banking

⁴²⁰ Federal Reserve Board Chairman Ben S. Bernanke, Causes of the Recent Financial and Economic Crisis, before the Financial Crisis Inquiry Commission, Washington, D.C., Sept., 2010.

⁴²¹ Statement of Treasury Secretary Timothy F. Geithner at a hearing on “Public Policy Issues Raised by the Report of the Lehman Bankruptcy Examiner,” before the House Committee on Financial Services, April 20, 2010, Serial No. 111–124, at 13.

organizations dominate the commercial paper market and now are the main, if not only, sponsors of ABCP. Banks also are the sponsors of MMFs that hold approximately one-half of all MMF assets.

Technically, it may be correct that many shadow banking activities are conducted by non-deposit-taking entities such as broker-dealers, ABCP conduits, and mortgage companies. But these entities are largely owned, created, sponsored, or affiliated with banks through bank holding companies and financial holding companies.⁴²² The Fed is the exclusive regulator of such companies under Bank Holding Company Act of 1956 and has broad supervisory authority and enforcement powers over them.⁴²³

1. Supervision of ABCP Activities

The Fed's BHC Supervision Manual provides detailed guidance on the supervision of ABCP activities of banking organizations. Among other things, the Manual provides guidance to bank management on the policies and procedures that should be in place with respect to ABCP:

A banking organization (that is, a bank or a bank holding company) participating in an asset-backed commercial paper program should ensure that such participation is clearly and logically integrated into its overall strategic objectives. Furthermore, management should ensure that the risks associated with the various roles that the institution may play in such programs are fully understood and that safeguards are in place to manage the risks properly.

Appropriate policies, procedures, and controls should be established by a banking organization before it participates in asset-backed commercial paper programs. Significant policies and procedures should be approved and reviewed periodically

⁴²² This was true even before the financial crisis. As a result of the crisis, the four largest investment banks became bank holding companies or were acquired by bank holding companies. No major U.S. investment banking firms remain in existence.

⁴²³ 12 U.S.C. § 1841 et seq. A "bank holding company" is defined in the Act to mean a company that controls a bank. A "financial holding company" is a bank holding company that is authorized to engage in expanded financial activities subject to certain requirements, including that it remain well-capitalized and well-managed.

by the organization's board of directors. These policies and procedures should ensure that the organization follows prudent standards of credit assessment and approval regardless of the role an institution plays in an asset-backed commercial paper program. Such policies and procedures would be applicable to all pools of receivables to be purchased by the SPE as well as to the extension of any credit enhancements and liquidity facilities. Procedures should include an initial, thorough credit assessment of each pool for which the banking organization had assumed credit risk, followed by periodic credit reviews to monitor performance throughout the life of the exposure.

Furthermore, the policies and procedures should outline the credit-approval process and establish in-house exposure limits, on a consolidated basis, with respect to particular industries or organizations, that is, companies from which the SPE purchased the receivables as well as the receivable obligors themselves. Controls should include well-developed management information systems and monitoring procedures.

Institutions should analyze the receivables pools underlying the commercial paper as well as the structure of the arrangement. This analysis should include a review of—

1. the characteristics, credit quality, and expected performance of the underlying receivables;
2. the banking organization's ability to meet its obligations under the securitization arrangement; and
3. the ability of the other participants in the arrangement to meet their obligations.

Banking organizations providing credit enhancements and liquidity facilities should conduct a careful analysis of their funding capabilities to ensure that they will be able to meet their obligations under all foreseeable circumstances. The analysis should include a determination of the impact that fulfillment of these obligations would have on their interest-rate risk exposure, asset quality, liquidity position, and capital adequacy.⁴²⁴

⁴²⁴ BHC Manual at § 2128.03.4, Board of Directors Policies Pertaining to Credit-Enhanced or Asset-Backed Commercial Paper.

The Manual instructs examiners to determine whether the policies and procedures are operative and that institutions are adequately managing their risk exposure.⁴²⁵

The Fed's BHC Inspection Manual sets forth detailed objectives and procedures for examiners who inspect bank holding company ABCP activities. The inspection objectives are as follows:

1. To determine whether the banking organization (that is, a bank or a bank holding company) participating in an asset-backed commercial paper program has included this participation in its overall strategic objectives.
2. To determine whether management fully understands the risks associated with the banking organization's involvement in credit-enhancement and asset-backed commercial paper programs and whether appropriate safeguards are in place to properly manage those risks.
3. To ascertain that the appropriate policies, procedures, and controls have been established by the banking organization before participating in asset-backed commercial paper programs.
4. To verify whether existing managerial and internal controls include well-developed management information systems and monitoring procedures.
5. To determine whether the banking organization has conducted a careful analysis of its funding capabilities to ensure that it will be able to meet its obligations under all foreseeable circumstances.
6. To ensure that all asset-backed securities owned, any assets sold with recourse, retained interests, and variable interest entities (VIEs) (for example, asset-backed commercial paper [ABCP] programs, those that are defined as VIEs under generally accepted accounting principles) are properly accounted for on the banking organization's books and are correctly reported on its regulatory reports.

⁴²⁵ *Id.*

7. To determine that capital is commensurate with, and that there are accurate determinations of the risk weights for, the risk exposures arising from recourse obligations, direct-credit substitutes, asset- and mortgage-backed securities, ABCP programs and ABCP liquidity facilities, and other asset securitization transactions.⁴²⁶

The Manual sets forth the following procedures for examiners in their inspections of ABCP activities of banking organizations:

1. Review the minutes of board of directors or executive committee meetings. Establish whether the significant policies and procedures for credit-enhanced or asset-backed commercial paper have been approved and reviewed periodically by the organization's board of directors.

a. Determine whether the policies are operative and whether institutions are adequately managing their risk exposure.

b. Determine whether the policies and procedures are applicable to all pools of receivables receivables to be purchased by the SPE as well as to the extension of any credit enhancements and liquidity facilities.

2. Determine if the organization follows prudent standards of credit assessment and approval.

a. Ascertain whether the procedures include an initial, thorough credit assessment of each pool for which the organization had assumed credit risk. The initial review should be followed by periodic credit reviews to monitor performance throughout the life of the exposure.

b. Determine if the policies and procedures outline the credit-approval process and establish in-house exposure limits, on a consolidated basis, with respect to particular industries or organizations, that is, companies from which the SPE purchased the receivables as well as the receivable obligors themselves.

c. Determine whether the organization analyzes the receivables pools underlying the commercial paper as well as analyzes the

⁴²⁶ Federal Reserve Board, BHC Supervision Manual § 2128.03.5, Inspection Objectives.

structure of the arrangement. Does the analysis include a review of—

- the characteristics, credit quality, and expected performance of the underlying receivables;
- the ability of the banking organization to meet its obligations under the securitization arrangement; and
- the ability of the other participants in the arrangement to meet their obligations?

3. Review the organization's funding obligations and commitments, and determine whether there is sufficient liquidity to satisfy those funding requirements. Include a determination of the impact that fulfillment of these obligations would have on their interest-rate risk exposure, asset quality, liquidity position, and capital adequacy.

4. Review carefully the risk-based capital calculations for ABCP facilities to ensure that they are applying, for risk-based capital purposes, the proper conversion factors to their obligations supporting the asset-backed commercial paper programs.

5. Determine if the banking organization consolidates, in accordance with GAAP, the assets of any ABCP program or other such program that it sponsors.

a. Determine if the banking organization's ABCP program met the definition of a sponsored ABCP program under the risk-based capital guidelines.

b. Verify that the assets of the banking organization's eligible ABCP program and any associated minority interest were included in the banking organization's calculation of its risk-based capital ratios.

c. Ascertain whether the liquidity facilities the banking organization extends to the ABCP program satisfy the risk-based capital requirements, including the appropriate asset-quality test, of an eligible ABCP program liquidity facility. . . .

d. Determine whether the banking organization applied the correct credit-conversion factor to the eligible ABCP liquidity facilities when it determined the amount of risk-weighted assets for its risk-based capital ratios. . . .

- e. Determine if all ineligible ABCP liquidity facilities were treated as either direct credit substitutes or as recourse obligations, as required by the risk-based capital guidelines.
 - f. If the banking organization had multiple overlapping exposures, determine if the banking organization applied the risk-based capital treatment that resulted in the highest capital charge.
6. Include in the inspection report a discussion of the size, effectiveness, and risks associated with ABCP programs (include the discussion in the confidential section of the inspection report if not appropriate for the open section).

The above excerpts from the Fed's BHC Supervision Manual make clear that ABCP activities of banking organizations are fully supervised by the Fed and are part of the regulated banking system, not some alien shadow banking system.

2. Banking Regulators Reduced Bank Capital Requirements for ABCP Prior to the Financial Crisis

In 2004, the banking regulators decided not to require banking organizations to consolidate their ABCP conduits on their balance sheets for regulatory capital purposes, notwithstanding an accounting standard adopted by the Financial Accounting Standards Board (FASB) in 2003 that otherwise required consolidated accounting.⁴²⁷ The regulators adopted a rule specifically excluding assets in ABCP conduits from a banking organization's consolidated risk-weighted asset base.⁴²⁸ As a result, banking organizations were allowed to continue operating their ABCP programs without maintaining capital against the assets in the conduits. The banking agencies stated:

The agencies believe that the consolidation of ABCP program assets generally would result in risk-based capital requirements that do not appropriately reflect the risks faced by banking organizations involved with the programs. Sponsoring banking organizations generally face limited risk exposure to ABCP

⁴²⁷ FASB Interpretation No. 46, Consolidation of Variable Interest Entities, effective March 31, 2004 (FIN 46).

⁴²⁸ 69 Fed. Reg. 44908 (July 24, 2004).

programs. This risk usually is confined to the credit enhancements and liquidity facility arrangements that sponsoring banking organizations provide to these programs. In addition, operational controls and structural provisions, along with overcollateralization or other credit enhancements provided by the companies that sell assets into ABCP programs, mitigate the risks to which sponsoring banking organizations are exposed.⁴²⁹

With respect to liquidity facilities provided by banks to their ABCP conduits, prior to 2004 banks were not required to maintain any risk-based capital if the facility had a maturity of one year or less. In 2004, the agencies decided to increase the conversion factor from zero to 10 percent, thereby requiring a modest amount of capital. The agencies stated:

Liquidity facilities supporting ABCP often take the form of commitments to lend to, or purchase assets from, the ABCP programs in the event that funds are needed to repay maturing commercial paper. Typically, this need for liquidity is due to a timing mismatch between cash collections on the underlying assets in the program and scheduled repayments of the commercial paper issued by the program. Under the current risk-based capital standards, liquidity facilities with an original maturity of over one year (that is, long-term liquidity facilities) are converted to an on-balance sheet credit equivalent amount using the 50 percent credit conversion factor.

Prior to this final rule, liquidity facilities with an original maturity of one year or less (that is, short-term liquidity facilities) were converted to an on-balance sheet credit equivalent amount utilizing the zero percent credit conversion factor. As a result, **such short-term liquidity facilities were not subject to any risk-based capital charge prior to this rule.**

In the agencies' view, a banking organization that provides liquidity facilities to ABCP is exposed to credit risk regardless of the term of the liquidity facilities. For example, an ABCP program may require a liquidity facility to purchase assets from the program at the first sign of deterioration in the credit quality of an asset pool, thereby removing such assets from the

⁴²⁹ *Id.*

program. In such an event, a draw on the liquidity facility exposes the banking organization to credit risk. The agencies believe that the existing risk-based capital rules do not adequately reflect the risks associated with liquidity facilities supporting ABCP. Although the agencies believe that liquidity facilities expose banking organizations to credit risk, the agencies also believe that the short term of commitments with an original maturity of one year or less exposes banking organizations to a lower degree of credit risk than longer term commitments, provided the liquidity facility meets certain asset quality requirements discussed below. This difference in degree of credit risk should be reflected in the risk-based capital requirement for the exposure. For this reason, in the NPR the agencies proposed a 20 percent credit conversion factor on eligible short-term liquidity facilities providing liquidity support to ABCP. . . . After consideration of the comments, **the agencies have decided to impose a 10 percent credit conversion factor on eligible short-term liquidity facilities supporting ABCP**, as opposed to the 20 percent credit conversion factor set forth in the NPR. A 50 percent credit conversion factor will continue to apply to eligible long-term ABCP liquidity facilities.⁴³⁰

In 2010, after the financial crisis revealed that the banking regulators' had greatly underestimated the risks of ABCP, they eliminated the ABCP exclusion and now require full consolidation of ABCP programs on banking organization balance sheets for regulatory capital purposes. In adopting the new rule, the agencies stated:

The 2004 implementation of the ABCP exclusion was based on the agencies' belief that sponsoring banking organizations' risk exposure to these entities was limited to their contractual exposure. However, as a result of some banking organizations having provided implicit support to a number of ABCP programs they sponsored during the recent financial turmoil, the agencies have observed that the premise of a contractual limit on risk was incorrect for some ABCP programs.⁴³¹

The Fed's BHC Supervision Manual provides detailed (if outdated) guidance on the capital treatment of bank ABCP activities:

⁴³⁰ 69 Fed. Reg. 44908 (July 24, 2004).

⁴³¹ 75 Fed. Reg. 4636, 4643 (Jan. 28, 2010); 12 C.F.R. 225, appendix A.

To be an eligible ABCP liquidity facility and qualify for the 10 or 50 percent credit-conversion factor, the facility must be subject to an asset-quality test at the time of inception that does not permit funding against (1) assets that are 90 days or more past due, (2) assets that are in default, and (3) assets or exposures that are externally rated below investment grade at the time of funding if the assets or exposures were externally rated at the inception of the facility. However, a liquidity facility may also be an eligible liquidity facility if it funds against assets that are guaranteed—either conditionally or unconditionally—by the U.S. government, U.S. government agencies, or by an OECD central government, regardless of whether the assets are 90 days past due, in default, or externally rated investment grade.

The 10 or 50 percent credit-conversion factor applies regardless of whether the structure issuing the ABCP meets the rule's definition of an ABCP program. For example, a capital charge would apply to an eligible short-term liquidity facility that provides liquidity support to ABCP when the ABCP constitutes less than 50 percent of the securities issued by the program, thus causing the issuing structure not to meet the rule's definition of an ABCP program. If a banking organization (1) does not meet this definition, it must include the program's assets in its risk-weighted asset base or (2) it chooses to include the program's assets in risk-weighted assets, then no risk-based capital requirement will be assessed against any liquidity facilities provided by the banking organization that supports the program's ABCP. Ineligible liquidity facilities will be treated as recourse obligations or direct-credit substitutes for the purposes of the Board's risk-based capital guidelines. The resulting credit-equivalent amount would then be risk-weighted according to the underlying assets or the obligor, after considering any collateral or guarantees, or external credit ratings, if applicable. For example, if an eligible short-term liquidity facility providing liquidity support to ABCP covered an asset-backed security (ABS) externally rated AAA, then the notional amount of the liquidity facility would be converted at 10 percent to an on-balance sheet credit-equivalent amount and

assigned to the 20 percent risk-weight category appropriate for AAA-rated ABS.⁴³²

The Fed's Manual addresses the capital treatment of multiple exposures to ABCP (similarly outdated):

A banking organization may have multiple overlapping exposures to a single ABCP program (for example, both a program-wide credit enhancement and multiple pool-specific liquidity facilities to an ABCP program that is not consolidated for risk-based capital purposes). A banking organization must hold risk-based capital only once against the assets covered by the overlapping exposures.

For example, assume a banking organization provides a program-wide credit enhancement that would absorb 10 percent of the losses in all of the underlying asset pools in an ABCP program and also provides pool-specific liquidity facilities that cover 100 percent of each of the underlying asset pools. The banking organization would be required to hold capital against 10 percent of the underlying asset pools because it is providing the program-wide credit enhancement.

The banking organization would also be required to hold capital against 90 percent of the liquidity facilities it is providing to each of the underlying asset pools. For risk-based capital purposes, the banking organization would not be required to hold capital against any credit enhancements or liquidity facilities that compromise the same program assets.

If different banking organizations have overlapping exposures to an ABCP program, however, each organization must hold capital against the entire maximum amount of its exposure. As a result, while duplication of capital charges will not occur for individual banking organizations, some systemic duplication may occur where multiple banking organizations have overlapping exposures to the same ABCP program.⁴³³

* * * * An ABCP liquidity facility is considered to be in compliance with the requirement for an asset-quality test if (1)

⁴³² Federal Reserve Board, BHC Supervision Manual § 2128.03, Credit-Supported and Asset-Backed Commercial Paper (Risk Management and Internal Controls), § 2128.03.3.1, Liquidity Facilities Supporting ABCP (Jan. 2011).

⁴³³ *Id.*

the liquidity provider has access to certain types of acceptable credit enhancements and (2) the notional amount of such credit enhancements available to the liquidity facility provider exceeds the amount of underlying assets that are 90 days or more past due, defaulted, or below investment grade for which the liquidity provider may be obligated to fund under the facility. In this circumstance, the liquidity facility may be considered “eligible” for purposes of the risk-based capital rule because the provider of the credit enhancement generally bears the credit risk of the assets that are 90 days or more past due, in default, or below investment grade rather than the banking organization providing liquidity.⁴³⁴

* * * * The banking organization is responsible for demonstrating to the Federal Reserve Board whether acceptable credit enhancements cover the 90 days or more past due, defaulted, or below-investment-grade assets that the organization may be obligated to fund against in each seller’s asset pool. If the banking organization cannot adequately demonstrate satisfaction of the conditions in the above-referenced interagency guidance, the Federal Reserve Board further reserves the right to determine that a credit enhancement is unacceptable for purposes of the requirement for an asset quality test and, therefore, it may deem the liquidity facility to be ineligible.⁴³⁵

The Manual instructs examiners to “carefully review the asset-backed commercial paper facilities provided by banking organizations to ensure that they are applying, for risk-based capital purposes, the proper conversion factors to their obligations supporting asset-backed commercial paper programs.”

The above excerpts further show that ABCP was and is part of the federally supervised banking system.

⁴³⁴ *Id.*

⁴³⁵ *Id.*

3. Supervision of Securitization Activities

The Fed's BHC Supervision Manual also includes a section on asset securitization and prescribes risk management and controls for banking organizations engaged in such activities.⁴³⁶ The Manual states:

Banking organizations have long been involved with asset-backed securities (ABS), both as investors in such securities and as major participants in the securitization process. In recent years, banking organizations have stepped up their involvement by increasing their participation in the long-established market for securities backed by residential mortgage loans and by expanding their securitizing activities to other types of assets, including credit card receivables, automobile loans, boat loans, commercial real estate loans, student loans, nonperforming loans, and lease receivables.

While the objectives of securitization may vary from one depository institution to another, there are essentially five benefits that can be derived from securitization transactions. First, the sale of assets may reduce regulatory costs. The removal of an asset from an institution's books reduces capital requirements and reserve requirements on deposits funding the asset. Second, securitization provides originators with an additional source of funding and liquidity. The process of securitization is basically taking an illiquid asset and converting it into a security with greater marketability. Securitized issues often carry a higher credit rating than that which the banking organization itself could normally obtain and, consequently, may provide a cheaper form of funding. Third, securitization may be used to reduce interest-rate risk by improving the banking organization's asset-liability mix. This is especially true if the banking organization has a large investment in fixed-rate, low yield assets. Fourth, by removing assets, the banking organization enhances its return on equity and assets. Finally, the ability to sell these securities worldwide diversifies the banking organization's funding base, thereby reducing dependence on local economies.

It is appropriate for banking organizations to engage in securitization activities and to invest in ABS, if they do so prudently. Nonetheless, these activities can significantly affect

⁴³⁶ BHC Supervision Manual § 2128.02 (Risk Management and Internal Controls).

their overall risk exposure. It is therefore of great importance, particularly given the growth and expansion of such activities, for examiners to be fully informed about the fundamentals of the securitization process, various risks that securitization and investing in ABS can create for banking organizations, and procedures that should be followed in examining banks and inspecting bank holding companies to effectively assess their exposure to risk and their management of that exposure.⁴³⁷

The Fed's Division of Banking Supervision and Regulation in 1990 issued extensive guidance to Fed examiners on the supervision of securitization activities by banking organizations:

It is appropriate for banking organizations to engage in securitization activities and to invest in ABS, if they do so in a prudent manner. Nonetheless, these activities can significantly affect their overall risk exposure. It is, thus, of great importance, particularly given the growth and expansion of such activities, for examiners to be fully informed on the fundamentals of the securitization process, on the various risks that securitization and investing in ABS can create for banking organizations, and on procedures that should be followed in examining banks and inspecting bank holding companies in order to effectively assess their exposure to risk and management of that exposure.

In order to provide examiners with the information and guidance they need on asset securitization, a task force of System supervisory staff from the Reserve Banks and the Board was established. The Task Force developed materials on the mechanics of securitization and related accounting issues, as well as a set of examination guidelines. These draft materials were distributed to you last September. This letter transmits the final version of the examination guidelines and educational background material for asset securitization. Attached are 1) the Examination Guidelines, 2) An Introduction to Asset Securitization – Volume 1, and 3)

⁴³⁷ *Id.*

Accounting Issues Relating to Asset Securitization – Volume
2.⁴³⁸

Reserve Banks were instructed to implement the examination guidelines and procedures as of July 1, 1990. The Division of Banking Supervision and Regulation issued extensive examination guidelines for examiners who inspect securitization activities of banking organizations.⁴³⁹

The OCC also has issued supervisory guidance to national banks regarding their securitization activities:

The Office of the Comptroller of the Currency today issued its first guidelines to banks involved in asset securitization activities. The guidelines focus on the need for bankers to understand fully the risks involved in securitization and to take steps to manage those risks effectively. OCC issued the bulletin on securitization because a growing number of banks are increasing their reliance on securitization to diversify funding sources and efficiently manage liquidity and capital.

Bank management should understand the risks of securitization under current, projected and stressed market conditions, according to the OCC. Securitization can benefit banks by enabling them to manage their exposure to credit risk in pools of assets. However, the OCC noted, because securitized asset performance is public information and monitored by market participants, securitization has the potential to highlight problems in a bank's overall portfolio performance. Performance of securitized assets that deviates from expectations will reflect poorly on the bank's underwriting and risk assessment capabilities. Poor asset performance may limit the bank's future access to the securitization market or affect the price of subsequent issues.⁴⁴⁰

⁴³⁸ Federal Reserve Board, Division of Banking Supervision and Regulation, SR-90-16 (FIS) (May 25, 1990); Supervision and Regulation Task Force on Securitization, Examination Guidelines for Asset Securitization.

⁴³⁹ Federal Reserve Board, Supervision and Regulation Task Force on Securitization, SR-90-16 (FIS) (May 25, 1990), attachment.

⁴⁴⁰ OCC Bulletin 96-52 (Sept. 25, 1996).

In 1997, the OCC issued a Handbook for Asset Securitization.⁴⁴¹ In 1999, the banking regulators issued interagency guidance on asset securitization activities.⁴⁴²

These supervisory materials show that the Fed and OCC have long viewed securitization activities, including ABCP, as a part of the regulated banking system, not part of a separate “shadow banking system” beyond the reach of banking supervisors.

X. MMFs AND THE “SHADOW BANKING SYSTEM”

A cynical observer might conclude that Fed officials have seized on the fiction of the “unregulated shadow banking system” to disguise the fact that the activities which so destabilized the banking system occurred under their supervision and regulation. The shadow banking illusion also supports the Fed’s narrative that MMFs and other activities occurring outside its supervisory purview exacerbated the financial crisis.

A. It is Misleading to View MMFs As Part of the “Shadow Banking System”

As noted earlier, Fed officials have referred to MMFs as part of the “unregulated shadow banking system.”⁴⁴³ They view the shadow banking system as something other than the regulated banking system.⁴⁴⁴

This view also is reflected in Fed staff research characterizing the shadow banking system as an unregulated network of “shadow banks”—including MMFs and ABCP conduits—that provide inexpensive short-term funding for long-term assets:

⁴⁴¹ Comptroller’s Handbook for Asset Securitization (Nov. 1997).

⁴⁴² See OCC Bulletin 99-46, Interagency Guidance on Asset Securitization Activities (Dec. 1999).

⁴⁴³ See, e.g., Ben S. Bernanke, Chairman, Federal Reserve Board, “On the Implications of the Financial Crisis for Economics,” Remarks at the Conference co-sponsored by the Bendheim Center for Finance and the Center for Economic Policy Studies, Sept. 24, 2010, at 6 (“. . . the run occurred outside the traditional banking system, in the shadow banking system—consisting of financial institutions other than regulated depository institutions, such as securitization vehicles, money market funds, and investment banks.”).

⁴⁴⁴ *Id.*

Shadow banks are financial intermediaries that conduct maturity, credit, and liquidity transformation without access to central bank liquidity or public sector credit guarantees. Examples of shadow banks include finance companies, asset-backed commercial paper (ABCP) conduits, limited-purpose finance companies, structured investment vehicles, credit hedge funds, money market mutual funds, securities lenders, and government-sponsored enterprises. . . .

The shadow banking system **rivals the traditional banking system** in the intermediation of credit to households and businesses. We document that the shadow banking system became severely strained during the financial crisis because, like traditional banks, shadow banks conduct credit, maturity, and liquidity transformation, but unlike traditional financial intermediaries, they lack access to public sources of liquidity, such as the Federal Reserve’s discount window, or public sources of insurance, such as federal deposit insurance. The liquidity facilities of the Federal Reserve and other government agencies’ guarantee schemes were a direct response to the liquidity and capital shortfalls of shadow banks and, effectively, provided either a backstop to credit intermediation by the shadow banking system or to traditional banks for the exposure to shadow banks.⁴⁴⁵

This view is misleading because it fails to recognize that regulated banks are the core of the shadow banking system. It also suggests that MMFs are the entities that convert long-term assets into short-term liabilities when in fact it is banks that do this by issuing ABCP, which is used as collateral for repurchase agreements and sold to MMFs and other institutional investors. MMFs invest in ABCP created by banks—the true shadow banks—but do not create those assets. Unlike banks, they issue shares with a \$1.00 net asset value that almost perfectly matches the value of their assets dollar for dollar. The \$1.00 stable NAV provides a convenience to investors and does not represent a significant maturity transformation compared to that of ABCP or bank deposits, both of which transform assets with maturities of as much as 30 years. In contrast, the maximum weighted average portfolio maturity permitted for

⁴⁴⁵ Zoltan Pozsar, Tobias Adrian, Adam Ashcraft, Hayley Boesky, “Shadow Banking,” Federal Reserve Bank of New York Staff Reports, Staff Report no. 458, July 2010.

MMFs is 60 days under SEC regulations.⁴⁴⁶ Unlike banks, MMFs generally have no ability to borrow to leverage their assets.⁴⁴⁷

In addition, Fed statements about shadow banks are misleading to the extent they suggest that regulated banks do not rely on uninsured demand deposits to fund their activities and are not subject to runs. In fact, approximately \$1.8 trillion in deposits at FDIC insured depository institutions was uninsured as of September 30, 2011.⁴⁴⁸ During the financial crisis, runs by uninsured depositors were a major concern, causing the Treasury Department to announce that no major banking institution would be permitted to fail.⁴⁴⁹ Uninsured bank deposits have been categorized as part of the “shadow banking system.”⁴⁵⁰ Moreover, banking organizations fund themselves with other short-term instruments in addition to deposits, such as commercial paper and repurchase agreements.⁴⁵¹

⁴⁴⁶ SEC Rule 2a-7 pursuant to the Investment Company Act of 1940, 17 C.F.R. § 270.2a-7.

⁴⁴⁷ Every dollar invested in a MMF supports one dollar of assets whereas every dollar invested in a bank deposit supports at least approximately \$8.00 of assets. See Daniel K. Tarullo, Governor, Federal Reserve Board, “Regulating Systemic Risk,” Remarks at the 2011 Credit Market Symposium (“money market funds . . . have essentially no leverage.”).

⁴⁴⁸ Federal Deposit Insurance Corporation, Quarterly Banking Profile, 2011, Third Quarter, Volume 5, No. 4, Table III-B, Estimated FDIC-Insured Deposits by Type of Institution.

⁴⁴⁹ At least two major banking organizations failed due to runs by uninsured depositors—Wachovia and Washington Mutual. Other banks similarly would have been subject to runs absent government assistance.

⁴⁵⁰ See Morgan Ricks, Shadow Banking and Financial Regulation, unpublished draft dated Aug. 30, 2010, available at SSRN.com, at 11. According to this author, short-term liabilities held in the “shadow banking system” in 2007 totaled \$11.2 trillion, of which \$2.7 trillion was uninsured deposits, \$1.2 trillion was ABCP, and \$3.1 trillion was MMFs. In comparison, total FDIC-insured deposits totaled \$4.8 trillion.

⁴⁵¹ At the time of Wachovia Bank’s liquidity crisis in 2008, for example, it had outflows of approximately \$5.7 billion in deposits, \$1.1 billion in asset-backed commercial paper and tri-party repurchase agreements that could not be rolled over, and \$3.2 billion in contingent funding on Variable Rate Demand Notes. Statement of John Corston, Acting Deputy Director, Complex Financial Institution Branch, Division of Supervision and Consumer Protection, Federal Deposit Insurance Corporation, on Systemically Important Institutions and the Issue of “Too Big To Fail” before the Financial Crisis Inquiry Commission, Sept. 1, 2010 (“Wachovia’s situation worsened as deposit outflows on Friday accelerated to approximately \$5.7 billion, \$1.1 billion in asset-back commercial paper and tri-party repurchase agreements could not be rolled over, and \$3.2 billion in contingent funding was required on Variable Rate

B. MMFs Are the “Depositors” of the Shadow Banking System

The descriptions of the shadow banking system by Fed economists show that MMFs are at the end of the chain of shadow banks and perform the role of depositors that buy shadow banking assets created by shadow banks—i.e., bank-sponsored ABCP and other securitized assets. Fed Chairman Bernanke has aptly described MMFs as the “depositors” of the shadow banking system:

In the recent crisis, money market mutual funds and their investors, as well as other providers of short-term funding, were the economic equivalent of early-1930s retail depositors. Shadow banks relied on these providers to fund longer-term credit instruments, including securities backed by subprime mortgages.⁴⁵²

Professor Gorton similarly has described MMFs as the depositors of the shadow banking system:

The shadow banking system is, in fact, a banking system. The “depositors” are firms seeking a place to save cash in the short-term, often money market funds and corporations. The “lenders” are financial firms seeking cash to finance themselves. . . . This is depository banking in a different form, but banking nevertheless. Like demand deposits at regulated commercial banks, this system is vulnerable to panic.⁴⁵³

The shadow banking system, like the traditional banking system, is fueled by short-term investments. MMFs specialize in short-term investments. Thus, it is not

Demand Notes. By the end of the day, Wachovia management informed bank regulators that with the lack of market acceptance of Wachovia’s liabilities, the institution faced a near-term liquidity crisis.”). The Fed and FDIC approved a \$312 billion loss sharing arrangement to facilitate the bank’s sale to Citigroup, although Wells Fargo ultimately acquired the bank without federal assistance.

⁴⁵² Ben S. Bernanke, Chairman of the Federal Reserve Board, speech before a conference co-sponsored by the Center for Economic Policy Studies and the Bendheim Center for Finance, Sept. 24, 2010.

⁴⁵³ Gary Gorton, “Slapped in the Face by the Invisible Hand: Banking and the Panic of 2007,” prepared for the Federal Reserve Bank of Atlanta’s 2009 Financial Markets Conference: Financial Innovation and Crisis, May 9, 2009 at 30. See also Morgan Ricks, “Shadow Banking and Financial Regulation,” available at SSRN.com.

surprising that MMFs are significant investors or “depositors” in the shadow banking system.

More than 90 percent of all assets held in prime MMFs are originated by financial institutions, including banks, bank holding companies, and nonbank finance companies. Thus, MMFs are “depositors” of the banking system in a very real sense. They are a major source of funding for banks. They provide an alternative to uninsured bank deposits for holders of large cash amounts. If the government fully insured all deposits, MMFs would have little reason to exist. But then the taxpayer supported federal safety net would be even more expansive than it is now.

Although MMFs invest in the “shadow banking system,” they do not need the shadow banking system to exist. They existed before the shadow banking system came into being and they can continue to exist without it.

Fed officials blame MMFs for destabilizing the shadow banking system by providing it with unstable funding. As a solution to this “problem,” Fed officials argue that MMFs should not be permitted to maintain a \$1.00 net asset value. One Fed official has said:

Much of the instability in the shadow banking system stemmed from its use of short-term funding for longer-term investment. This source of systemic risk can be significantly reduced by making two changes to the money market. The first change addresses potential disruptions coming from money market funding of shadow banks – money market mutual funds and other investments that are allowed to maintain a fixed net asset value of \$1 should be required to have floating net asset values. Shadow banks’ reliance on this source of short-term funding and the associated threat of disruptive runs would be greatly reduced by eliminating the fixed \$1 net asset value and requiring share values to float with their market values. The second recommendation addresses potential disruptions stemming from the short-term repurchase agreement, or repo, financing of shadow banks. . . . Overall, **these changes to the rules for money market funds and repo instruments would increase the stability of the shadow banking system** because term lending would be less dependent on “demandable”

funding and more reliant on term funding, and the pricing of risk would reflect the actual risk incurred.⁴⁵⁴

This rationale exemplifies the “shoot the messenger” quality of the Fed’s MMF proposals. They misdirect the focus of reform efforts from problems at their source—namely, the regulated banking organizations that operate the shadow banking system—to MMFs, which are the equivalent of depositors in the system.

Proposals that effectively tax MMF shareholders for investing in the shadow banking system are like taxing bank depositors for keeping their money in banks. Bank depositors are not required to absorb losses generated by the banks that hold their deposits—unless the bank fails and the deposits exceed the federal deposit insurance limit. Likewise, MMFs should not be required to absorb credit losses of the shadow banks that hold their “deposits,” unless the shadow bank fails. Neither bank depositors nor MMF shareholders created the credit risks and losses that destabilized the banking system in 2007 and 2008.

The Fed has worried that MMFs are “susceptible to runs,” a supposition that has been shown in this paper to be unsupported by historical or other evidence. It is true that MMF shareholders, like depositors, are risk-sensitive. If they lose confidence in the safety of their investments, they will withdraw. MMFs have experienced heavier than usual redemption requests from time to time, but there has been only one “run” that resulted in a MMF “breaking a dollar” and that was the one in 2008 caused largely by actions of the Fed.

Banks, on the other hand, have been subject to runs notwithstanding the availability of federal deposit insurance. Deposit insurance instills a high degree of depositor confidence in the traditional banking system—a form of “moral hazard.”

⁴⁵⁴ Thomas M. Hoenig, President, Federal Reserve Bank of Kansas City, Remarks at the 29th Annual Monetary and Trade Conference, May 24, 2011.

Yet, a sizable portion of bank deposits are uninsured and banks still are susceptible to runs by uninsured depositors.⁴⁵⁵

There is no federal insurance system for MMFs. Nor would such insurance appear to be practical due to the largely institutional nature of the investors. Nor would such a concept be likely to survive opposition from the banking industry.⁴⁵⁶ In any case, there appears to be no need for insurance to instill confidence in MMFs given MMFs' superior safety record and structural soundness based on strict regulation under the Investment Company Act.

C. MMFs Do Not “Divert Deposits” Away from Banks

Fed statements that MMFs have diverted deposits away from banks are misleading. To the contrary, banks have diverted substantial amounts away from MMFs during the past several years. Congress increased the amount of insurance on bank deposits from \$100,000 to \$250,000 during the financial crisis and the FDIC authorized banks to offer noninterest bearing deposits with unlimited insurance.⁴⁵⁷ As a result, over \$1.0 trillion flowed from MMFs to insured banks.⁴⁵⁸

MMFs serve different financial needs than banks. MMFs offer a distinct investment service designed to meet the short-term investment needs of customers for whom banks do not offer sufficient safety, liquidity or rate of return. Uninsured bank deposits are not an acceptable alternative for large cash holders.

⁴⁵⁵ The run on Wachovia Bank, N.A. in 2008, for example, was a run by institutional depositors and creditors that led to the sale of the bank. See Statement of John Corston, Acting Deputy Director, Complex Financial Institution Branch, Division of Supervision and Consumer Protection, Federal Deposit Insurance Corporation, on Systemically Important Institutions and the Issue of “Too Big To Fail” before the Financial Crisis Inquiry Commission, Sept. 1, 2010.

⁴⁵⁶ See discussion in section V.A. of this paper.

⁴⁵⁷ The unlimited insurance will end on Dec. 31, 2012 as required by Congress. Thereafter, bank deposits will be insured up to \$250,000. Congress permanently increased the amount of deposit insurance to \$250,000 per account in the Dodd-Frank Act.

⁴⁵⁸ See Federal Reserve Statistical Release Z.1, Flow of Funds Accounts of the United States.

MMFs do not enjoy unfair competitive advantages over banks. To the contrary, they lack the significant advantages that banks have of federal deposit insurance and access to the discount window.

D. The Shadow Banking System Has Positive Features That MMFs Can Support

Fed economists have described four ways in which credit intermediation performed by the so-called shadow banking system, supported by MMFs, benefits the U.S. financial system:

There are at least four different ways in which the securitization-based, shadow credit intermediation process can not only lower the cost and improve the availability of credit, but also reduce volatility of the financial system as a whole.

First, securitization involving real credit risk transfer is an important way for an issuer to limit concentrations to certain borrowers, loan types and geographies on its balance sheet.

Second, term asset-backed securitization (ABS) markets are valuable not only as a means for a lender to diversify its sources of funding, but also to raise long-term, maturity-matched funding to better manage its asset-liability mismatch than it could by funding term loans with short-term deposits.

Third, securitization permits lenders to realize economies of scale from their loan origination platforms, branches, call centers and servicing operations that are not possible when required to retain loans on balance sheet.

Fourth, securitization is a potentially promising way to involve the market in the supervision of banks, by providing third-party discipline and market pricing of assets that would be opaque if left on the banks' balance sheets.⁴⁵⁹

According to Fed economists, MMFs make all of this possible and are the “lifeblood” of the “shadow banking system”:

⁴⁵⁹ Zoltan Pozsar, Tobias Adrian, Adam Ashcraft, Hayley Boesky, “Shadow Banking,” Federal Reserve Bank of New York Staff Report no. 458 (July 2010) at 15.

Money market investors [MMFs] effectively fund every step and shadow bank in the shadow credit intermediation process—in essence, money market investors (or more precisely, money market investors’ purchases of shadow bank liabilities) are the lifeblood of the shadow banking system.⁴⁶⁰

Professor Gorton has stated that securitization was not the cause of the financial crisis per se and is a more efficient way to finance loans:

Securitization generally is not the problem currently. It is not the cause of the crisis. Securitization is an efficient form of financing and there is no evidence that there is a systematic agency problem in its functioning. Rather, the particular form of the design of subprime mortgages is at root the problem. It was highly sensitive to house prices, and this sensitivity was passed through to a variety of other financial structures.⁴⁶¹

Securitization is a more efficient way to finance loans. The growth of derivative securities caused an enormous demand for collateral. Over twenty-five years the shadow banking system evolved to meet the needs of this modern economy. Unfortunately, the vulnerability to panic was also produced.⁴⁶²

MMFs are ideally suited to invest in the securitized asset-backed commercial paper market. SEC regulations limit their investments to short-term, high-quality investments such as asset-backed commercial paper. Without MMFs to purchase ABCP, it is unlikely that the ABCP market will revive as an efficient means of financing loans.

The bank ABCP market declined substantially following the run in 2007 and the events in 2008. Outstanding ABCP totaled approximately \$350 billion at year-end 2011, down from its peak of \$1.2 trillion in 2007.⁴⁶³ The total amount of assets

⁴⁶⁰ Pozsar et al. at 50.

⁴⁶¹ Gary B. Gorton, “The Panic of 2007,” at 77.

⁴⁶² *Id.* at 43.

⁴⁶³ As of January 2012, total commercial paper outstanding totaled \$975 billion, of which \$446 billion was issued by banks and other financial institutions, \$340 billion was issued by ABCP conduits, and \$190 billion was issued by nonfinancial companies. Source: Federal Reserve Board, Commercial Paper Rates and Outstanding Summary.

securitized and sold by banks nevertheless has remained high—\$965 billion as of September 30, 2011.⁴⁶⁴

The constriction in ABCP reflects, among other things, a reluctance by investors—mainly MMFs—to purchase ABCP under current conditions. Moody’s Investor Service reported that, from 2007 to 2011, ABCP holdings decreased from 25 percent to 8.3 percent of MMF portfolios.⁴⁶⁵ Moody’s attributed this reduction to the following:

- (i) investors are averse to structured finance securities after losses related to Structured Investment Vehicles (SIVs) during the financial crisis;
- (ii) ABCP is viewed by some managers as contrary to a fund’s objectives, which is to maintain liquidity;
- (iii) the overall credit quality of financial institutions providing liquidity to ABCP conduits has deteriorated; and
- (iv) the lack of disclosure of ABCP and opacity in terms of conduit structure prevents investors from fully understanding the risks of ABCP.

Moody’s stated that it expects that conservative MMF portfolio strategies to persist in the current challenging operating environment and, as a consequence, MMF investments in ABCP will remain limited.

Moody’s noted that, in addition to the lower demand for ABCP, MMFs holdings of ABCP has also declined due to a decrease in the number of available conduits that meet the quality criteria of MMFs. Moody’s noted that MMFs favor investments in fully supported ABCP sponsored by highly rated financial institutions that either have a strong track record benefit from government support. Moody’s found that MMFs generally invest only in ABCP that investors believe will be supported by banks. Moody’s predicted that, because of economic and regulatory

⁴⁶⁴ Federal Deposit Insurance Corporation, Quarterly Banking Profile, 2011, Volume 5, No. 4, Table VII-A.

⁴⁶⁵ Moody’s Investor Service, “Money Market Funds: ABCP Investments Decrease,” Special Comment, Dec. 7, 2011.

uncertainty, “any resurgence of MMF investment in ABCP is unlikely in the short term.”⁴⁶⁶

Thus, to the extent the Fed continues to view securitization of bank loans as an efficient and important means of financing economic growth, it should be concerned about the impact of its regulatory proposals on the ability of MMFs to remain functional as vehicles for investing in securitized assets.

XI. STATEMENTS ON MMFS BY FORMER FED CHAIRMAN PAUL VOLCKER

Former Federal Reserve Board Chairman Paul Volcker has made numerous public statements disparaging MMFs and urging that they be subject to bank-like regulation. The following are excerpts from some of his comments:

“Three Years Later: Unfinished Business in Financial Reform,” The William Taylor Memorial Lecture, Paul A. Volcker, Washington, D.C., Sept. 12, 2011:

. . . . More immediately important, and it seems to me more amenable to structural change, is the role of money market mutual funds in the United States. By grace of an accounting convention, shareholders in those funds are permitted to meet requests for withdrawals upon demand at a fixed dollar price so long as the market valuation of fund assets remains within a specified limit around the one dollar “par” (in the vernacular “the buck”). Started decades ago essentially as regulatory arbitrage, money market funds today have trillions of dollars heavily invested in short-term commercial paper, bank deposits, and notably recently, European banks.

Free of capital constraints, official reserve requirements, and deposit insurance charges, these MMMFs are truly hidden in the shadows of banking markets. The result is to divert what amounts to demand deposits from the regulated banking system. While generally conservatively managed, the funds are demonstrably vulnerable in troubled times to disturbing runs, highlighted in the wake of the Lehman bankruptcy after one large fund had to suspend payments. The sudden impact on the

⁴⁶⁶ *Id.* at 4.

availability of business credit in the midst of the broader financial crisis compelled the Treasury and Federal Reserve to provide hundreds of billions of dollars by resorting to highly unorthodox emergency funds to maintain the functioning of markets.

Recently, in an effort to maintain some earnings, many of those funds invested heavily in European banks. Now, without the backstop official liquidity, they are actively withdrawing those funds adding to the strains on European banking stability.

The time has clearly come to harness money market funds in a manner that recognizes both their structural importance in diverting funds from regulated banks and their destabilizing potential. If indeed they wish to continue to provide on so large a scale a service that mimics commercial bank demand deposits, then strong capital requirements, official insurance protection, and stronger official surveillance of investment practices is called for. Simpler and more appropriately, they should be treated as an ordinary mutual funds, with redemption value reflecting day by day market price fluctuations.

Comments by Paul Volcker at the SEC Roundtable on Money Market Funds:

Paul A. Volcker: I may be commenting on something that comes later, but you asked the specific question, “Are they prone to a run?” . . . I think the answer is obviously yes, and incontestably. But the real test of what we’re talking about is what happens in a time of crisis? Obviously in fair weather, nothing ever happens, and you don’t have to worry. The question is we’ve got an institution here which is vulnerable to a crisis. We had a big crisis, it turned out to be terribly vulnerable. There was no backstop, no capital, no official assistance available. Most unusual measures were taken. You know, whoever thought that the Exchange Stabilization Fund, which I used to run, would be used to support domestic money market funds? I mean, that is an indication that something’s the matter. And what happened to the commercial paper market upon which they were all dependent? They all use this great sophisticated local commercial paper, it wasn’t worth a damn in the midst of a crisis. Now, I don’t care how much a company’s looked at it and was careful. You had a structural problem here of an organization that had no backstop, had no

capital, had no official liquidity support. So it had to run from one extraordinary action to safeguard it to another, and you asked, “What is the public good that this institution is providing that makes it worthwhile to run a big risk, vulnerability to a crisis?”⁴⁶⁷

Paul A. Volcker: I happened to be there at the birth of money market funds. It was pure regulatory arbitrage. Banks could not pay interest on demand deposits. So there was a gap in the market, which was filled by money market funds saying, “We’ll pay you interest, and we’ll provide a demand deposit.” Now, you ask yourself whether that is -- the relevance of that at this point. It is a shadow bank. And do we need shadow banks, or are we making real banks?

* * * *

Paul A. Volcker: . . . I just want to make a point here about any of these systems that involve outside liquidity support. I made a recommendation along this line myself. I just decided that it’s more simple just to do the net asset value change because you couldn’t, in effect, make money market mutual funds a special kind of bank that’s subject to capital requirements, and the Federal Reserve or some regulator is going to have something to say about that and liquidity requirements. You already, to some degree, are subject to those. And in return, you get, presumably, access to the central bank.

I think you’re going to end up with more regulation than you bargained for if you go in that direction. There will always be a temptation to fuss around, and I think particularly that the money market mutual fund is already a special kind of bank. It may really want to be a real bank. Maybe that’s a good thing. They’re sort of already being regulated by the Federal Reserve anyway, and have capital requirements and access to the Federal Reserve. Why do I buy commercial paper? I just, you know, make the commercial paper myself. I’ll lend to the companies, make a good deal. Why don’t I open up a credit card fund? Why don’t I do a lot of other things? Why limit myself?

⁴⁶⁷ Securities and Exchange Commission, Roundtable on Money Market Funds and Systemic Risk, May 10, 2011, unofficial transcript posted on SEC web site.

The one thing, if you go in that direction, it'd be okay. But you're going to be, in effect, a bank holding company. You're going to be subject to all the restrictions of a bank holding company. So what else can that holding company do in a non-banking area, in a non-financial area? You can't have General Electric doing their stuff. They're a company. You can't have a lot of other companies. You can't have a CVS, if they want to do it, can't do it. They are a commercial company.

So I think you can go that way. As I said, I proposed it at one point to a lot of other people [unintelligible] to me. But I would think pretty hard about a tradeoff for something simple, about no maintenance of par value without much regulation or opening up the floodgates of regulation. You know, a little bit attractive, that if you had how many thousand money market funds there are? How many are there?

Chairman Schapiro: [inaudible]

Paul A. Volcker: What?

Chairman Schapiro: 650.

Paul A. Volcker: 650? This country could use 650 more banks. We just lost about 1,000 during the crisis.

Comments by Paul Volcker to the New York Times, "How Mr. Volcker Would Fix It," by Gretchen Morgenson, published October 22, 2011:

"Because they are not subject to reserve requirements and capital requirements, they are a point of vulnerability in the system," he said. "It is really interesting that they did so much lending to European banks. They had to pull back a lot, aggravating the pressures on the European banks."

Excerpts from a report by the Group of Thirty chaired by Paul Volcker:

"Financial Reform: A Framework for Financial Stability"

* * * * Money market mutual funds wishing to continue to offer bank-like services, such as transaction account services, withdrawals on demand at par, and assurances of maintaining a stable net asset value (NAV) at par, should be required to

reorganize as special-purpose banks, with appropriate prudential regulation and supervision, government insurance, and access to central bank lender-of-last-resort facilities.

Those institutions remaining as money market mutual funds should only offer a conservative investment option with modest upside potential at relatively low risk. The vehicles should be clearly differentiated from federally insured instruments offered by banks, such as money market deposit funds, with no explicit or implicit assurances to investors that funds can be withdrawn on demand at a stable NAV. Money market mutual funds should not be permitted to use amortized cost pricing, with the implication that they carry a fluctuating NAV rather than one that is pegged at US \$1.00 per share.⁴⁶⁸

⁴⁶⁸Group of Thirty, *Financial Reform: A Framework for Financial Stability* (Jan. 2009). The Group of Thirty describes itself as a “private, nonprofit, international body composed of very senior representatives of the private and public sectors and academia.” The members of the Group include former Federal Reserve officials, including Paul Volcker (the Group’s chairman), Timothy Geithner, E. Gerald Corrigan, Roger W. Ferguson, Jr., and William McDonough.

Excerpts from an interview by the Financial Crisis Inquiry Commission with former Fed Chairman Paul Volcker

October 10, 2010

Paul Volcker: Another element of this, just since you're writing a report and raised the issue—money market funds. I was sort of there at the birth of money market funds. They kind of arose in 1980-81 or something. There was a question whether they were legal or not and there was a question whether they should be outlawed and all the rest and the fact is it didn't get outlawed simply because it was pretty popular. People could go put their funds in the money market fund and escape banking regulation of interest rate ceilings that existed at that time. It was all very convenient. So the political support for doing something about it evaporated, there was initially some, but then it all evaporated.

And I think that was unfortunate, because it was pure regulatory arbitrage. A money market fund has no function other than to take deposits that would otherwise be in the banks and run it through them and then they lent it back to the government and lent it to business through commercial paper, which was in turn guaranteed by the banks, I mean it was kind of ridiculous when you look at it. But there it was and it seemed harmless, I guess, and it had a regulatory arbitrage function when there were ceilings on deposits including demand deposits.

Now it turns out that more frequently than I thought, not very frequently, but there were more occasions than I thought, where they failed to meet the promise or were unable potentially to meet the promise of payment on demand immediately at par and were rescued by their parent companies. And some of this was I think done so quietly nobody quite realized it. But then when you had this big independent one get in trouble and some of the parents got in trouble it exposed what I think is a weakness in the system.

And it's unfortunate because most of that money I think should be with the banks. And the banks are regulated, and the banks should have more money and are more stable source of funds to do, for instance, some mortgage lending instead of doing it all in the market, like most countries. And that would have been a stabilizing—when the banks typically made a mortgage they weren't going to sell, they at least understood the guy was alive when he walked in the bank to make the application, and were at least intelligent enough to fill out

some form about his net worth and his employment and they might actually call up your employer and all that kind of thing, which was completely forgotten about in the days of securitization.

Interviewer: So with money market funds, is it a fair characterization to say that the regulatory response was to get rid of the interest rate cap so that the banks could try to attract that money back and was that the correct response, in retrospect?

Volcker: First of all, much to my surprise, they only got rid of the interest rate cap on demand deposits in Dodd-Frank and the banks weren't much concerned because the banks themselves of course set up the money market funds. But that's not quite the same as having it in the bank in terms of the credit decisions and all the rest, but the interest rate ceiling was certainly a factor. You had to go through a cumbersome NOW account to avoid being a bank deposit. In a way it was much more convenient, because there was no capital requirement, there was no regulation explicitly, so it was kind of a free ride.

I'll tell you a little story, maybe not irrelevant. Jake Garn was the chairman of the Banking Committee and he was just starting in 1980-81 kind of a hawk initially because the banks had got after him and said do something, you're the chairman of the Banking Committee, we've got all this competition beginning in Utah with all the NOW accounts, do something. And I wanted to do something. And I wanted to restrain them so we arranged a meeting one morning. I went up to see him... Basically I walked into his office, he said "I changed my mind, I don't want to do anything about them." There had been an election in Utah, a referendum, if I remember correctly. The banks got excited about Utah. They were going to outlaw them in Utah and the motion to eliminate money market funds lost by three to one so Jake Garn suddenly lost interest in regulating them. And from then on it wasn't exactly a hot issue and nobody was paying attention.

The Administration in proposing the reform pushed that argument but it got lost in so many other issues in the banking reform, it got lost someplace. But it may be worth re-raising. I'd like to see it re-raised.

Interviewer: Were there missed warning signals that there was fragility there?

Volcker: It wasn't all that frequent, but the times that they did run out of money, and you knew about some of them. Some of them were publicized, but there were more that were not publicized, so there was no sense of great fragility, I'm sure. And most of them are protected by a parent. Now the one big one of course was not and that's what set it off.

But I think it's an amazing thing when you look at it. This quiet little development that seemed to be so convenient for everybody, when it went bad required massive assistance of public money in this kind of illegitimate organization to rescue it or it would bring down the system. I think that's the area, that was the Treasury that put the money in, didn't it? --the Exchange Stabilization Fund—now how do you like that, the Exchange Stabilization Fund, the fund dedicated to foreign exchange is used. I used to run the Exchange Stabilization Fund. I assure you there's nothing in law that authorizes the use of that money for rescuing domestic money market funds. But in an emergency you do what you can do, but it's an illustration, however quiet it was, it was obviously a point of vulnerability in the banking, the financial system and I guess it remains so.

Interviewer: How about the commercial paper market, just looking at a different market within the shadow banking system? What earlier crises are there that can help us understand what happened?

Volcker: The commercial paper market is of course an old world market. In a way that's a kind of regulatory thing too because if that same loan went to the bank itself you had a reserve requirement, you had capital requirements and so forth and so on, so it was easier to go outside the banking system. But it wasn't outside the banks -- it was easier for the banks to give a guarantee than to actually take it on their books and that made it cheaper for everybody because of the expense of putting it on the books. And if it's properly backed, I think it's okay.

But I think it was kind of lost in the bank regulatory structure in that nobody added up the liability for commercial paper on top of the stuff that's on the balance sheet. But that tendency will exist as long as there are banks that are regulated that operate under some financial constraints, and if you can find a way to provide the same product going outside. So I don't argue with it too much so long as it's transparent and so long as the discipline is maintained that the commercial paper won't be backed by credit lines of the banks.

The charge for commercial paper back-up became very small and the risk was not really, in retrospect anyway, adequately recognized. There was competition between banks for easy money on the outside. The charge was 1/8 of one percent, and maybe less in some places ... not for the dodgiest companies but even for companies that weren't absolutely prime round. And I suggest it's kind of a bank supervisory problem for a particular bank that is getting very exposed and doesn't seem to charge very much and isn't being careful in what it's guaranteeing. It's a job for the supervisors to get after it but I'm so radical as to say eliminate the commercial paper market. Maybe that's because I like old things.

Interviewer: If we look what was different in the 2000s versus previous decades in the commercial paper market, I guess the big development was the growth in asset backed commercial paper. Are there special regulatory arbitrage issues there?

Volcker: I'm not familiar enough. I guess the assets became not very liquid and that was a different kind of development where I guess there was no recourse many times... that's something to be looked at, but I don't have any great expertise. That's kind of disappeared for the moment.

XII. COMMENTS BY MEMBERS OF CONGRESS ON FED MMF PROPOSALS

Excerpt from Letter dated Feb. 12, 2012, from Congressman Steven C. LaTourette to Federal Reserve Board Chairman Ben S. Bernanke:

I am writing to express my concern regarding views expressed by members of the Board of Governors of the Federal Reserve System (Board) reflecting the view that significant regulation of Money Funds is necessary. I have been informed that these comments may have been made as part of an effort to push the Money Fund industry to support new Securities and Exchange Commission (SEC) rulemaking, which would allow certain Money Funds to avoid designation by the Financial Stability Oversight Council (FSOC) as systemically significant.

The regulatory action advocated by Board members would require Money Funds to float their net asset value (NAV) and would impose bank-type capital requirements on Money Funds. These and other suggested regulatory actions, including the imposition of hold backs or fees on investors seeking redemptions, could change the fundamental character of Money Funds and significantly diminish or end their effectiveness for investors and borrowers.

I fully support and encourage bank regulators to speak frankly on issues of importance to the financial markets, but in this particular case, regulators need to be candid about the potential harmful effects of the changes they advocate. I think it is necessary that regulators tell both sides of the story in regard to these potential regulations, and I am concerned that so far, that has not been the case.

These actions could create the dynamic for a bad “compromise” that reduces flexibility and yield for investors, simply to avoid regulatory action that would be more damaging. The SEC acted properly in 2010 to impose significant new disclosure, reporting, and liquidity requirements on Money Funds. At this time, I do not believe more dramatic measures are necessary or appropriate,

specifically those being suggested by the Federal Reserve that would make Money Funds more like bank products.⁴⁶⁹

Content of letter to the SEC by Senators Bennett, Toomey, Crapo, and Tester:

We write to express our concerns about proposals to float the net asset value (NAV) of money market funds (MMMFs) or to impose inappropriate bank-like requirements on these funds. It is our understanding that the Securities and Exchange Commission (the Commission) is currently considering such regulatory changes.

Since the financial crisis peaked in the fall of 2008, the Commission has implemented reforms designed to improve the ability of money market funds to withstand market turmoil and heightened redemption pressure. These 2010 reforms increase MMMF liquidity by requiring, among other measures, that 10% of a fund's holdings are liquid daily (e.g., cash or maturing instruments) and 30% of its holdings are liquid within five business days. This additional liquidity proved helpful during the recent debt ceiling deadline and market volatility surrounding Standard & Poor's downgrade of U.S. government securities, even though MMMFs faced no unanticipated redemption pressure.

The Commission's action to date enhance the safety and liquidity of money market funds as you noted when you implemented the reforms. However, we are concerned about additional actions contemplated by the Commission that could have adverse consequences on both investors and the capital markets. Specifically, forcing money market funds to abandon their stable \$1.00 share price and "float" their net asset value will likely have significant consequences for retail investors, companies, and municipalities. A floating NAV, for instance, would make money market fund sales tax-reportable events, substantially increasing the tax and recordkeeping burdens of investors while reducing the product's viability.

⁴⁶⁹ Letter dated Feb. 12, 2012, from Congressman Steven C. LaTourette to Federal Reserve Board Chairman Ben S. Bernanke.

If money market funds lose their stable value, retail investors who want a stable-value cash investment may have fewer opportunities to access money market instruments. On the other hand, institutions that want or require stable value could turn to private pools, in the United States and overseas, that promise to maintain a fixed price. These alternatives would be subject to significantly less oversight than money market funds.

At the same time, if money market funds are forced to float their NAVs, the flow of hundreds of billions of dollars in both corporate and municipal financing would likely be severely disrupted, exacerbating the budget woes of communities around the nation—which could lead to reduced municipal services, higher taxes, or both.

Consumer lending may also become less available and more expensive. Without money market funds, it is not apparent how consumer, commercial and municipal financing needs would be met. There is no readily apparent substitute for today's money market funds. Moreover, the benefits of a floating NAV may be only illusory—experience with floating NAV money market funds abroad has shown that funds with a floating NAV are not immune to redemption pressures.

Similarly, adopting inappropriate bank-like regulations for money market funds may also cause significant disruptions to the financial system as the money market fund industry may be forced to consolidate. Such actions could increase the amount of assets subject to the Federal safety net, reduce investor choice, and produce large pockets of concentrated risk into a small number of funds—ironically, inflating too-big-to-fail risk.

We recognize the pressure that the Commission is under to effect additional reform in this area, particularly in light of the current uncertainty in the worldwide financial markets. In this vein, we are willing to engage in a dialogue on the relevant issues. We urge you, however, not to rush to adopt solutions that could potentially create disruptions in our fragile economy, impair the ability of businesses to raise capital efficiently, harm retail investors, and increase stress on municipal budgets. Any further proposals should preserve the utility of money market funds for investors and avoid imposing costs that would make large numbers of advisers unwilling or unable to continue to sponsor these funds.

Transcript of questions concerning money market funds posed by Senator Schumer to Federal Reserve Chairman Ben S. Bernanke at a hearing before the Senate Committee on Banking, Housing and Urban Affairs on The Semiannual Monetary Policy Report to the Congress, March 1, 2012 (unofficial transcript of archived hearing at 107-112 minutes):

Senator Schumer: Money market funds. We all remember the dark days of the fall 2008. The panic that ensued when a large money market fund broke the buck. There was a run on the funds. The SEC instituted some reforms as you know in 2010 to address the problems that led to the run in 2008. However, Chairman Schapiro and FSOC [the Financial Stability Oversight Council], you remember, have made it clear they believe that more should be done. So the recent reports they've discussed a few options, this was in the newspaper, including a proposal that would lock up a portion of investors' money and a proposal to require funds to abandon the stable \$1.00 a share net asset value. The proposals have the potential to fundamentally change the nature of the product. Some would say it would drive it out of existence. We wouldn't have money market funds. Obviously, they play an important role in short-term financing of many different types of businesses. What are the risks to the economy and financial system if we were to fundamentally alter the nature of the money market fund? What do you think of the two different proposals made to strengthen them? I'm particularly interested, I've heard that if investors have to keep three percent or a certain percentage aside and can't pull it out right away, that it's not worth an investment anymore. It's not worth investing in a money market fund to them anymore.

Chairman Bernanke: Well, first, as you pointed out, the SEC has already done some constructive things in terms of, for example, improve liquidity requirements. I think though that the Federal Reserve generally and I personally would have to agree that there are still some risks in the money market mutual funds. In particular, they still could be subject to runs. And one of the implications of Dodd-Frank is that some of the tools that we used in 2008 to arrest the run on the funds are no longer available. As you know, the Treasury can no longer provide the ad hoc insurance it provided. The Fed's ability to lend to money market mutual funds is greatly restricted because of the fact that we'd have to take a haircut on their assets and that's not going to work with their economics. So we support the SEC's attempts to look at alternatives. And

you mentioned some different things. But I believe their idea is to put out a number of alternative strategies. One alternative would be to go away from the fixed net asset value approach. I think that the industry will reject that pretty categorically and so the question is what else could be done. One approach would be essentially to create some more capital. They have very limited capital at this point. And there might be ways maybe over time to build up the capital base. So that's one possible approach.

Then either complementing that or as a separate approach would be something that involved not allowing the investors to draw out 100 percent immediately. That, if you think about that, what that really does, is that it makes it unattractive to be the first person to withdraw your money and therefore it reduces the risk of runs considerably. It also has an investor protection benefit which is that if you're a "slow" investor, you're not monitoring the situation moment by moment so you're the last guy to take your money out, you're still protected because there's this three percent or whatever.

Senator Schumer: But I've heard from some investors and from some funds that given the low margin that money market funds pay that it would just end the business more or less. Certainly I've heard from investors that they wouldn't put money in if they knew that they had to keep two or three percent in there. Does that worry you?"

Chairman Bernanke: It's certainly a difficult time because interest rates are low and therefore their attractiveness is less. I don't know. I think you have to have some sort of discussion here because part of the reason that investors invest in money market mutual funds is because they think they are absolutely 100 percent safe and there's no way to lose money and if that's not true then we have to make sure that investors are aware and that we take whatever actions are necessary to protect their investments.

Senator Schumer: Do you think money market funds play a useful role, though, in the economy and that we should try to keep them going?

Chairman Bernanke: Well, generally speaking, they do, and they are a useful source of short-run money. But, and again, please don't over-read this but, you know, Europe doesn't have any, and they have a financial system. There are many ways of structuring . . .

Senator Schumer: They're in great shape.

Chairman Bernanke: They're in great shape, yeah. There are many ways to structure your financial system but, again, I envision that money market mutual funds will be a part of the future of the U.S. financial system.

XIII. STATEMENT BY INVESTMENT COMPANY INSTITUTE

Statement of ICI Executive Committee on Money Market Fund Regulation

Washington, DC, March 14, 2012

In light of the ongoing debate over changes to money market fund regulation, the Executive Committee of ICI's Board of Governors is issuing the following statement:

In 2010, the Securities and Exchange Commission approved far-reaching rule amendments that enhanced an already strict regime of money market fund regulation. Those amendments have made money market funds more resilient by, among other things, imposing new credit quality, maturity, and minimum liquidity standards for these funds; increasing the transparency of their portfolios; and empowering money market fund boards to assure a fair and orderly liquidation of a money market fund, should that become necessary. These reforms were in keeping with the SEC's long record of crafting ever-stronger rules for money market funds that have enabled these funds to meet the needs of investors and play an important role in the nation's economy, while protecting investors and the financial system.

The 2010 reforms were tested during the summer of 2011, when money market funds faced three unprecedented challenges: Europe's ongoing sovereign debt crisis; the U.S. debt ceiling impasse; and the historic downgrade of the United States' sovereign debt rating. During a period of significant market turmoil, money market funds met large volumes of shareholder redemptions without incident, without meaningful reductions in money market funds' mark-to-market portfolio values, and without any impact in the broader money market.

For more than two years, money market fund yields have been near zero. Funds have faced increased competition from banking products due to unlimited deposit insurance for non-interest-bearing checking accounts and the payment of interest on business checking for the first time in 80 years. Despite these factors, investors consistently have entrusted more than \$2.6 trillion in assets to money market funds. We believe this is dramatic evidence of the value investors place on the stability, convenience, and liquidity of money market funds.

The SEC has indicated that it is now considering fundamental changes to money market fund regulation. It appears that these

changes either would require money market funds to abandon their stable per-share net asset value or would impose capital requirements and restrict redemptions. We are concerned that these changes will eliminate the utility of money market funds for most investors. As a result, these funds no longer would serve, as they do today, as a critical source of financing for businesses, banks, state and local governments, and the federal government.

For cash management purposes, many investors likely would resort to funds that are less regulated and transparent than money market funds, thereby increasing—not decreasing—risks to the financial system.

For all of these reasons, and particularly in light of the demonstrated effectiveness of the comprehensive money market fund reforms already adopted by the SEC in the aftermath of the financial crisis, we do not believe the further changes in money market fund regulation now under consideration are necessary or appropriate.

The Executive Committee is responsible for evaluating policy alternatives and various business matters on behalf of the ICI Board of Governors.

For more information on money market funds, their role in the economy, ICI's efforts to make these funds more resilient in the face of adverse market conditions, and the significant risk of undermining money market funds' value to investors and the economy, please see www.ici.org/mmfs or www.PreserveMoneyMarketFunds.org.