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Systemic Risk Regulation and the Myths of the 2008 Financial Crisis

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The conventional story about the 2008 financial crisis is that, after the so-called "shadow banks" made too many risky bets, trouble at one large money market mutual fund (MMF) ignited a contagious run on other MMFs and it quickly spread throughout short-term credit markets. This contagion was only arrested, the story goes, after the federal government provided widespread financial guarantees.

Countless government officials use this story to justify both their actions during the crisis and the major regulatory changes that they implemented after the crisis, including two rounds of amendments to MMF rules. Now, the Biden administration is using this same story to promote more regulations for MMFs and to justify restricting the issuance of stablecoins to federally insured banks.

This story is highly misleading, and both the regulations that have been implemented and those that have been proposed in the name of mitigating future systemic risk events are highly misguided. In this briefing paper I summarize the main problems with the conventional story about the 2008 crisis and explain why it does not justify expanding bank-like regulations throughout financial markets to mitigate systemic risks.[1]

REDEMPTIONS AND DECLINES ARE NOT CONTAGION

Many government reports repeat the conventional story about the 2008 financial crisis to justify more-expansive systemic risk regulations. For instance, in December 2020, the President's Working Group on Financial Markets released a report on reform options for MMFs that includes the following passage:

> In September 2008, there was a run on certain types of MMFs after the failure of Lehman Brothers caused a large prime MMF that held Lehman Brothers short-term instruments to sustain losses and "break the buck." During that time, prime MMFs experienced significant redemptions that contributed to dislocations

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> in short-term funding markets, while government MMFs experienced net inflows. Ultimately, the run on prime MMFs abated after announcements of a Treasury guarantee program for MMFs and a Federal Reserve facility designed to provide liquidity to MMFs. Subsequently, the Securities and Exchange Commission ("SEC") adopted reforms (in 2010 and 2014) that were designed to address the structural vulnerabilities that became apparent in 2008.[2]

For proponents of stricter regulation, the rush to redeem shares or convert an investment into cash is the key aspect of what happened. Those runs are the first sign of a contagious panic that can disrupt other markets. This view was emphasized in a new presidential working group report on stablecoins, for example, that claims:

> Runs could spread contagiously from one stablecoin to another, or to other types of financial institutions that are believed to have a similar risk profile. Risks to the broader financial system could rapidly increase as well, especially in the absence of prudential standards.[3]

Despite the multitude of reports that make these kinds of claims regarding contagious runs, there is surprisingly little evidence that they have occurred.

The 2020 President's Working Group on Financial Markets report on money market funds, for instance, provides no evidence to support the MMF contagion story. It does direct readers to a 2010 report for a "more detailed discussion of the MMF-related events in 2008,"[4] but that older report also makes assertions without providing evidence of MMF contagion in 2008.[5] The 2010 report does accurately describe the billions of dollars that flowed out of prime institutional MMFs during the 2008 crisis, but these outflows alone do not provide evidence for MMF contagion.

In fact, several government reports inadvertently provide evidence against the contagion story. For example, a 2012 Financial Stability Oversight Council report notes that:

> Outflows from institutional prime MMFs following the Lehman bankruptcy *tended to be larger among MMFs with sponsors that were themselves under stress*, indicating that MMF investors redeemed shares when concerned about sponsors' potential inabilities to bolster ailing funds. These run dynamics were primarily prevalent among the *more sophisticated*, risk-averse institutional investors, as institutional funds accounted for 95 percent of the net redemptions from prime funds.[6] [Emphasis added.]

The report also claims that "MMFs managed by just a dozen firms accounted for almost three-quarters of the $202 billion decline in the industry's holdings" of commercial paper, and that just "five MMF sponsors accounted for almost half of the decline."[7] Together, these facts provide evidence against the contagion story: virtually all the outflows were among primarily large, sophisticated investors, and those investors did not run indiscriminately, which is a prerequisite for contagion.

As for whether MMF share redemptions caused problems in other short-term credit markets, several government reports assert that the large MMF outflows led to "frozen" short-term credit markets. The 2010 working group report, for example, claims that the short-term credit markets froze after "MMFs reduced their holdings of commercial paper by about $170 billion (25 percent)" during September 2008.[8] There is no doubt that short-term credit markets experienced a great deal of stress during the crisis, as did virtually all businesses, but the evidence shows that short-term credit markets did not freeze. In fact, much of the evidence demonstrates that these markets worked precisely as they were designed to function, allowing the most risk-averse investors to seek alternatives that they deemed to be safer.

Federal Reserve data show that the total outstanding commercial paper (short-term borrowings outside of the banking sector) fell $207 billion through the last half of September 2008, a net reduction that represents 11 percent of the total commercial paper outstanding at the beginning of the month. Yet $1.6 trillion in commercial paper remained outstanding as of October 1. It is inaccurate to refer to a $200 billion net reduction as a frozen commercial paper market because of its overall size and the short-term nature of commercial paper. In 2008, similar to most years, 69 percent of outstanding commercial paper had a maturity of one to four days, and 75 percent had a maturity of less than nine days.[9] These figures suggest that at least $800 billion of the amount outstanding represented new commercial paper issues.

In addition to raw data, multiple studies demonstrate that

even the asset-backed commercial paper (ABCP) market, the hardest hit segment of the commercial paper market, did not freeze. For instance, a paper authored by Federal Reserve Board researchers refers to the collapse of the ABCP market, but still shows that maturities of *new issues* declined through the period. It also reports that "for the programs that could issue, yield spreads and maturities of new issues had explainable variation during the crisis," and that "runs in the crisis were not random but instead were significantly more likely at riskier programs."[10] Thus, the evidence shows that the market did not freeze, and that contagion was not the problem.

Separately, many prime MMFs gained assets around the time of the Lehman failure and the run on the Reserve Primary Fund. As an SEC report confirms, "the mean prime money market fund experienced large weekly net redemptions, and many individual funds experienced weekly net redemptions that exceeded 10 percent; nevertheless, there were many individual prime funds that experienced weekly net purchases that exceeded 5 and 10 percent of fund assets during the Crisis Month [defined as September 2, 2008, to October 7, 2008]."[11] Put differently, prime MMFs as a whole did lose assets during this period, but many individual prime MMFs simultaneously gained assets. Again, this evidence shows that the markets did not freeze, and it also stands in complete contrast to a general contagion story.[12]

REVEALING THE SHADOW BANKS

Since the 2008 financial crisis, many government officials have argued for imposing bank-like regulations on nonbank financial firms to guard against potential systemic risks. They typically justify these efforts with the conventional story about the 2008 financial crisis, claiming that the problem was the lack of regulation among the so-called "shadow banks." The implication, of course, is that the banking sector is safer because it is so highly regulated, and that regulators would never have allowed commercial banks to undertake such risky behavior. It turns out, though, that highly regulated commercial banks were responsible for most of this risky activity, and it took place with the explicit blessing of federal regulators.

In general, the large increase in securitization—issuing securities whose value is tied to pools of other assets, such as mortgages or consumer loans—that started in the late 1980s was driven primarily by banks. In 2012, a Federal Reserve report affirmed that "banks are by far the predominant force in the securitization market," and that banks were "a significant force in these shadow banking segments related to securitization all along."[13] From 1990 to 2008, commercial banks' market share for the principal functions of securitization (including issuing, trustee services, underwriting, and servicing) remained well over 90 percent.[14]

More narrowly, commercial banks have been heavily involved with commercial paper and MMFs for decades. For instance, commercial banks normally set up special entities (conduits) to issue asset-backed commercial paper and to provide credit or liquidity guarantees. In other words, most of this paper is sold to outside investors with explicit guarantees that require (in the event of default) commercial banks to pay off maturing ABCP at full-face value.[15] In 2007, on the eve of the financial crisis, 67 of the 127 sponsors rated by Moody's Investors Service were commercial banks, accounting for 74 percent of the outstanding ABCP ($911 billion).[16] Moreover, most of the issuance was concentrated in the largest institutions—the 10 largest commercial bank sponsors accounted for 37 percent of the total ABCP outstanding.[17]

Since the 1980s, an increasing number of commercial banks have even sponsored money market mutual funds. Bank-sponsored prime institutional MMFs, for instance, grew from "a negligible percentage of the industry in 1986" to almost half ($227 billion) of all prime institutional MMF assets by the year 2000, and further increased to 52 percent ($612 billion) by the end of 2007.[18] As with commercial paper, banks provide explicit guarantees for their conduits that create MMFs, thus increasing the liabilities for the commercial banking sector.[19]

While the repurchase agreement (repo) market does not rely primarily on asset-backed securities for collateral, it is also highly intertwined with the banking sector. By far, U.S. Treasury securities are the most commonly used collateral in the repo market, with agency debt and mortgage-backed securities a close second, such that approximately 70 percent of the collateral used in the repo market consists of government-backed securities.[20] Historically, securities dealers have been the largest borrowers in the repo markets (with an average share of more than 53 percent of total borrowings for the last two decades), and the largest investors in the repo market (accounting for 40 percent of the total share for the last 20 years).[21]

One major segment of the repo market is the tri-party repo market, which relies on two clearing banks (the Bank of New York Mellon and J. P. Morgan Chase) to provide settlement and collateral management services.[22] Most MMF repos are executed in the tri-party segment, and most invest their cash in repos with the same financial institutions that serve as the Federal Reserve's primary dealers.[23] In 2020, money market mutual funds accounted for 22 percent of all repo lending,[24] but they do not borrow in the repo market.

Clearly, describing these activities as part of a shadow banking sector is highly misleading. None of this activity took place in the shadows, and almost all of it took place either directly through a commercial bank or an affiliate of a Fed-regulated bank holding company. It unequivocally occurred with the explicit blessing of banking regulators. Aside from the multiple regulatory changes that allowed banks to engage in these behaviors, all bank activities take place under systematic scrutiny of federal regulators.[25] It is impossible to ignore that the federal government's efforts to stabilize financial markets in 2008 were aimed at shoring up the banking sector.

BANKING REGS HAVE NOT PRODUCED STABILITY

Federal bank regulations have become increasingly prescriptive during the past century, and many government officials now want to expand that regulatory framework to the nonbank segment of financial markets. There is, however, good reason to doubt that these stricter bank regulations served the banking sector well, even on a global level. In the preface to their 2014 book, *Fragile by Design*, professors Charles Calomiris and Stephen Haber note that their book was released "after the worst three decades of banking crises the world has ever seen."[26]

There is no doubt that the federal capital framework contributed to the build-up of all types of mortgage-backed securities (MBS) in the banking sector prior to the 2008 crisis, and that regulators explicitly designed that framework to create a safe banking system.[27] In 2001, federal regulators implemented the recourse rule, giving certain AA- and AAA-rated asset-backed securities the same low-risk weight as agency-issued MBS, which spurred the 10 largest American banks to expand their purchases of private-label MBS and collateralized debt obligation bonds.[28] Given that modern banking regulation displays such a poor overall track record on stability, it is difficult to see how forcing more bank-like regulations on firms in capital markets will achieve financial stability.[29]

CONCLUSION

Countless government officials use the conventional story about the 2008 financial crisis to justify their actions during the crisis as well as the major regulatory changes that they implemented after the crisis. Now, the Biden administration is using this same story to promote more money market mutual fund regulations and to justify heavily regulating stablecoins. The conventional story about the 2008 financial crisis does not stand up to scrutiny and using it to justify regulations to mitigate future systemic risks is highly misguided.

However, much of the evidence demonstrates that nonbank financial markets worked precisely as they were designed to function. The historical record also demonstrates that commercial banks were heavily involved in most of the so-called shadow banking activity at the heart of the 2008 crisis. Not only does this fact suggest that the federal government's efforts during 2008 were aimed at saving the banking sector, but it also reveals that federal regulators explicitly blessed these so-called shadow banking activities as safe.

The evidence suggests that the banking sector would be more stable if banks were not subject to such an extensive top-down regulatory framework. Today's overly prescriptive regime has unequivocally caused instability in the banking sector, the nonbanking sector, and the broader economy. It makes little sense to expand it. Government officials should acknowledge that they cannot design vibrant capital markets that are always perfectly stable if they also want to allow investors to take the risks that create vibrant capital markets.

NOTES

1. For a comprehensive critique of the conventional story, including its pervasive use and a detailed explanation of why it does not justify implementing widespread bank-like regulations throughout financial markets, see Norbert J. Michel, "The Contagion Concoction: The Truth about Runs and the Great Financial Crisis," CMFA Working Paper no. 006, February 2, 2022, https://www.alt-m.org/2022/02/02/the-contagion-concoction-the-truth-about-runs-and-the-great-financial-crisis-cmfa-working-paper-no-006/.

2. "Overview of Recent Events and Potential Reform Options for Money Market Funds," President's Working Group on Financial Markets, December 2020, p. 4, https://home.treasury.gov/system/files/136/PWG-MMF-report-final-Dec-2020.pdf.

3. "Report on Stablecoins," President's Working Group on Financial Markets, the Federal Deposit Insurance Corporation, and the Office of the Comptroller of the Currency, November 2021, p. 12, https://home.treasury.gov/system/files/136/StableCoinReport_Nov1_508.pdf.

4. "Overview of Recent Events and Potential Reform Options," p. 4n4.

5. "Money Market Fund Reform Options," President's Working Group on Financial Markets, October 2010, pp. 11–13, https://www.treasury.gov/press-center/press-releases/Documents/10.21%20PWG%20Report%20Final.pdf.

6. "Proposed Recommendations Regarding Money Market Mutual Fund Reform," Financial Stability Oversight Council, November 2012, p. 25, https://www.treasury.gov/initiatives/fsoc/Documents/Proposed%20Recommendations%20Regarding%20Money%20Market%20Mutual%20Fund%20Reform%20-%20November%2013,%202012.pdf.

7. "Proposed Recommendations Regarding Money Market Mutual Fund Reform," pp. 25–26.

8. "Money Market Fund Reform Options," p. 12.

9. Richard Anderson and Charles Gascon, "The Commercial Paper Market, the Fed, and the 2007-2009 Financial Crisis," *Federal Reserve Bank of St. Louis Review* 91, no. 6 (November/December 2009): 590, https://files.stlouisfed.org/files/htdocs/publications/review/09/11/Anderson.pdf.

10. The authors identify riskier programs "based on observable program characteristics, program type, sponsor type, and macro-financial variables." Daniel M. Covitz, Nellie Liang, and Gustavo A. Suarez, "The Evolution of a Financial Crisis: Collapse of the Asset-Backed Commercial Paper Market," *Journal of Finance* 68, no. 3 (June 2013): 818.

11. Response to Questions Posed by Commissioners Aguilar, Paredes, and Gallagher, Division of Risk, Strategy, and Financial Innovation U.S. Securities and Exchange Commission, November 30, 2012, p. 7, https://www.sec.gov/files/money-market-funds-memo-2012.pdf.

12. An even larger problem for any contagion story that starts with the Lehman Brothers' failure is that, according to the SEC, investors had already started redeeming shares in prime MMFs days before the Lehman failure. Response to Questions Posed by Commissioners Aguilar, Paredes, and Gallagher, p. 7.

13. Nicola Cetorelli and Stavros Peristiani, "The Role of Banks in Asset Securitization," Federal Reserve Bank of New York *Economic Policy Review*, July 2012, p. 58, https://www.newyorkfed.org/medialibrary/media/research/epr/12v18n2/1207peri.pdf. Also see Melanie L. Fein, "The Shadow Banking Charade," Working Paper, February 15, 2013, https://papers.ssrn.com/sol3/papers.cfm?abstract_id=2218812.

14. Cetorelli and Peristiani, "The Role of Banks in Asset Securitization," p. 58.

15. Viral V. Acharya, Philipp Schnabl, and Gustavo Suarez, "Securitization Without Risk Transfer," *Journal of Financial Economics* 107, no. 3 (March 2013): 519–20, https://www.sciencedirect.com/science/article/abs/pii/S0304405X12001894.

16. Acharya et al., "Securitization Without Risk Transfer," p. 522.

17. Authors calculations using data on Table 1 (panel B) in Acharya et al., "Securitization Without Risk Transfer," p. 522, and ABCP data from the Federal Reserve. See, Board of Governors of the Federal Reserve System (US), Asset-Backed Commercial Paper Outstanding [ABCOMP], retrieved from FRED, Federal Reserve Bank of St. Louis, January 6, 2022, https://fred.stlouisfed.org/series/ABCOMP.

18. Stefan Jacewitz and Haluk Unal, "Shadow Insurance? Money Market Fund Investors and Bank Sponsorship," Federal Deposit Insurance Corporation Center for Financial Research, Working Paper 2020-03, June 2020, forthcoming in the *Review of Corporate Finance Studies*, p. 5, https://www.fdic.gov/analysis/cfr/working-papers/2020/cfr-wp2020-03.pdf.

19. Interestingly, Fed Chairman Ben Bernanke's statement to the Financial Crisis Inquiry Commission notes that "A large

portion of the investments of these [money market] funds were in short-term wholesale funding instruments issued or guaranteed by commercial banks." See Statement by Ben S. Bernanke, Chairman Board of Governors of the Federal Reserve System before the Financial Crisis Inquiry Commission, Washington, DC, September 2, 2010.

20. "What Types of Asset Are Used as Collateral in the Repo Market?," International Capital Markets Association, 2021, https://www.icmagroup.org/Regulatory-Policy-and-Market-Practice/repo-and-collateral-markets/icma-ercc-publications/frequently-asked-questions-on-repo/6-what-types-of-asset-are-used-as-collateral-in-the-repo-market/; "US Repo Market Fact Sheet," Securities Industry and Financial Markets Association, 2022, https://www.sifma.org/resources/research/us-repo-market-fact-sheet/; "Repo Market Fact Sheet," Securities Industry and Financial Markets Association, 2014, https://www.sifma.org/wp-content/uploads/2017/05/us-repo-fact-sheet-2014.pdf; and Viktoria Baklanova, Cecilia Caglio, Marco Cipriani, and Adam Copeland, "The U.S. Bilateral Repo Market: Lessons from a New Survey," Office of Financial Research, January 13, 2016, https://www.financialresearch.gov/briefs/files/OFRbr-2016-01_US-Bilateral-Repo-Market-Lessons-from-Survey.pdf.

21. Viktoria Baklanova, Isaac Kuznits, and Trevor Tatum, "Primer: Money Market Funds and the Repo Market," Division of Investment Management's Analytics Office of the U.S. Securities and Exchange Commission, February 18, 2021, https://www.sec.gov/files/mmfs-and-the-repo-market-021721.pdf.

22. In both the tri-party and bilateral repo market segments, some transactions are "cleared," meaning that the counterparties transfer risk to a third party (a clearing bank). See David Bowman, Joshua Louria, Matthew McCormick, and Mary-Frances Styczynski, "The Cleared Bilateral Repo Market and Proposed Repo Benchmark Rates," February 27, 2017, https://www.federalreserve.gov/econresdata/notes/feds-notes/2017/cleared-bilateral-repo-market-and-proposed-repo-benchmark-rates-20170227.html.

23. Baklanova et al., "Primer: Money Market Funds and the Repo Market."

24. Baklanova et al., "Primer: Money Market Funds and the Repo Market."

25. See Michel, "The Contagion Concoction," pp. 53–60. Also see Fein, "The Shadow Banking Charade," pp. 48–73.

26. Charles Calomiris and Stephen Haber, *Fragile By Design: The Political Origins of Banking Crises & Scarce Credit* (Princeton: Princeton University Press, 2014), p. ix.

27. Norbert J. Michel and John L. Ligon, "Basel III Capital Standards Do Not Reduce the Too-Big-to-Fail Problem," Heritage Foundation Backgrounder no. 2905, April 23, 2014, http://thf_media.s3.amazonaws.com/2014/pdf/BG2905.pdf; and Acharya et al., "Securitization Without Risk Transfer."

28. See J. Friedman and K. Wladmir, *Engineering the Financial Crisis: Systemic Risk and the Failure of Regulation* (Philadelphia: University of Pennsylvania Press, 2011), chap. 2, p. 81.

29. While it may be tempting to argue that banking—or a market economy itself—is inherently unstable, the record shows that financial crises are not inherent to market economies or to the production of bank debt. In general, market economies other than the United States have performed with fewer banking crises, and most U.S. crises have been directly linked to poorly designed banking and currency regulations. See George Selgin, "Misunderstanding Financial History," Alt-M, July 11, 2013, https://www.alt-m.org/2013/07/11/misunderstanding-financial-history/.