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The Repo Ruse

Scheme in Which Loans Are Mislabeled As Sales Continues to Endanger the Financial System

Acknowledgments

This report was written by Micah Hauptman, Financial Campaign Coordinator of Public Citizen's Congress Watch division. The report was edited by Congress Watch Director David Arkush and Congress Watch Research Director Taylor Lincoln.

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Public Citizen's Congress Watch
215 Pennsylvania Ave. S.E.
Washington, D.C. 20003
P: 202-546-4996
F: 202-547-7392
<http://www.citizen.org>

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Introduction

In the run-up to the 2008 financial crisis, banks depended increasingly on an unreliable method of funding their activities called “repurchase agreements,” or repos for short. Repos contribute to what is known as the shadow banking system—non-traditional banking activities that have by and large escaped government regulation. Repos may look like relatively safe borrowing agreements, but they can quickly create widespread instability in the financial system.

The dangers of repos stem from a legal fiction: despite being the functional equivalent of a secured loan, a repo agreement is legally defined as a sale. The borrower “sells” its collateral to the lender, while at the same time promising to buy it back later, often the next day. These “sales” and “buy-backs” can occur perpetually under a single contract, until one party terminates the arrangement.

Dressing up repo loans as sales creates two significant problems. First, it provides preferential treatment to repo lenders relative to other creditors when a repo borrower goes bankrupt, effectively giving repo lenders the first opportunity to seize and sell collateral. These special privileges can lead to sloppy lending practices, which can threaten systemic fragility. When repo lenders cannot gauge the value of collateral or trust a borrower’s ability to make good on its borrowing agreements, the lenders are likely to end their repo agreements suddenly. The decision of one repo lender to end a repo agreement can prompt others to follow suit, essentially causing a run on the bank.

Second, dressing up repo loans as sales enables repo borrowers to account for repo transactions in ways that portray themselves as being healthier than they really are. While repo transactions are legally defined as sales, they are usually booked as loans on company balance sheets¹ because they have all of the characteristics of loans. However, under certain circumstances, repo borrowers can book their repo agreements as sales. Using this accounting gimmick allows a company to pay off liabilities and hide the debt that they are responsible for.

These fundamental flaws in the repo market became apparent during the 2008 financial crisis. Repos accounted for a substantial and growing share of borrowing in the run-up to the crisis, and runs by repo lenders were a substantial cause of the crisis. The damage was so severe that the Federal Reserve engaged in extraordinary and unprecedented lending to rescue those institutions that depended on repos.

¹ A balance sheet is a statement of a firm’s financial condition. A balance sheet details three general areas: a company’s assets, liabilities, and equity.

These problems still have not been addressed adequately. Repos continue to be a prominent source of funding for large financial institutions. Even worse, regulators have exempted repos from prohibited activities under the proposed implementation of the Volcker Rule statute, which would prohibit bank holding companies and their affiliates from engaging in proprietary trading. These defects must be remedied. First, Congress should recognize that a repurchase agreement is in fact a secured loan—not a sale—and roll back special bankruptcy protections given to repo lenders. This would force repo lenders to be more careful in their lending activities, which would make the financial system more stable. Second, the final regulations implementing the Volcker Rule should not exclude repo transactions.

Without reform, the financial system remains susceptible to the sudden and severe shocks that repos can cause, increasing the likelihood that the federal government will again find it necessary to intervene to avert disaster.

I. The Basics of Repurchase Agreements

Legally, a repurchase agreement (repo) is a short-term transaction in which a borrower “sells” a security (such as a bond) to a lender, and simultaneously contracts to “repurchase” that security at a fixed price on a specific later date. Because the intent is for the borrower to repurchase the security from the lender rather than relinquish it completely, a repurchase agreement is functionally equivalent to a loan. The initial “sale” price of the security is the amount of the loan. The proceeds from the repurchase serve as repayment of the loan with interest. The security acts as the collateral.²

The securities used for repos can vary from relatively safe assets like U.S. Treasuries to more risky assets like mortgage-backed securities or sovereign debt.³ For example, a borrower might sell Treasuries for \$1 million and simultaneously agree to buy them back a day later for \$1.0001 million.⁴ In this situation, the borrower functionally receives a \$1 million loan for a day and pays the lender \$1 million back the following day with \$100 interest.

² Manuel A. Utset, *Complex Financial Institutions and Systemic Risk*, 45 Ga. L. Rev. 779 (Spring 2011); Viral V. Acharya and T. Sabri Öncü, “The Repurchase Agreement (Repo) Market,” *Regulating Wall Street: The Dodd-Frank Act and the New Architecture of Global Finance*, John Wilen & Sons, Inc. (2011); David A. Skeel, Thomas H. Jackson, *Transaction Consistency and the New Finance in Bankruptcy*, 112 Colum. L. Rev 152 (January 2012).

³ Arvind Krishnamurthy, Stefan Nagel and Dmitry Orlov, *Sizing Up Repo*, National Bureau of Economic Research, January 2012, available at <http://bit.ly/yzAXpB>; Viral V. Acharya and T. Sabri Öncü, “The Repurchase Agreement (Repo) Market,” *Regulating Wall Street: The Dodd-Frank Act and the New Architecture of Global Finance*, John Wilen & Sons, Inc. (2011).

⁴ Kenneth D. Garbade, *The Evolution of Repo Contracting Conventions in the 1980s*, Federal Reserve Bank of New York Economic Policy Review, May 2006, available at <http://bit.ly/JsTcWr>.

Repos allow institutions holding large sums of idle cash—such as mutual funds, state and local governments, and corporations—to invest in a more attractive finance vehicle than a commercial deposit account.⁵ In some contexts, repo lending may be safer than depositing money in a commercial bank because deposits are insured only up to \$250,000, while repo lending is protected to the extent of the collateral’s value, which can be in excess of \$250,000. Repos can also benefit repo borrowers—such as securities dealers—by enabling them to finance their activities at low interest rates.⁶

Repo agreements can vary in length from one day to one year, but are often overnight transactions that are rolled over automatically until one party terminates the arrangement.⁷ If a repo borrower defaults on its obligations under the repo contract, the repo lender assumes permanent ownership of the securities used as collateral.⁸ So long as the collateral is stable, the lending arrangement seems safe. However, harm to the lender arises when two circumstances occur at the same time: the collateral declines in value and the borrower defaults on its agreement to repurchase the collateral.⁹ If the collateral declines in value and the borrower defaults, the lender now owns an asset that is worth less than the amount lent. The lender will suffer a loss when re-selling that asset.

To mitigate this risk, a lender typically insists that the borrower provide collateral worth more than the loan amount.¹⁰ For example, a borrower might provide securities worth \$10.2 million as collateral for a \$10 million loan. The difference between the collateral’s value and the loan amount—in this case, \$200,000—is called “margin.”¹¹ Its purpose is to provide the lender a buffer against a decline in the securities’ value.¹² Providing this additional collateral is called “posting margin.”¹³ Because the collateral’s value could decline more than the margin amount, a repo agreement might require the borrower to

⁵ *Id.*; Viral V. Acharya and T. Sabri Öncü, “The Repurchase Agreement (Repo) Market,” *Regulating Wall Street: The Dodd-Frank Act and the New Architecture of Global Finance*, John Wilen & Sons, Inc. (2011).

⁶ Viral V. Acharya and T. Sabri Öncü, “The Repurchase Agreement (Repo) Market,” *Regulating Wall Street: The Dodd-Frank Act and the New Architecture of Global Finance*, John Wilen & Sons, Inc. (2011).

⁷ *Id.*

⁸ Kenneth D. Garbade, *The Evolution of Repo Contracting Conventions in the 1980s*, Federal Reserve Bank of New York Economic Policy Review, May 2006, available at <http://bit.ly/JsTcWr>.

⁹ *Id.*

¹⁰ Viral V. Acharya and T. Sabri Öncü, “The Repurchase Agreement (Repo) Market,” *Regulating Wall Street: The Dodd-Frank Act and the New Architecture of Global Finance*, John Wilen & Sons, Inc. (2011).

¹¹ David Longworth, *The Role of Margin Requirements and Haircuts in Procyclicality*, Bank for International Settlements, Committee on the Global Financial System, March 2010, available at <http://bit.ly/IBaq18>.

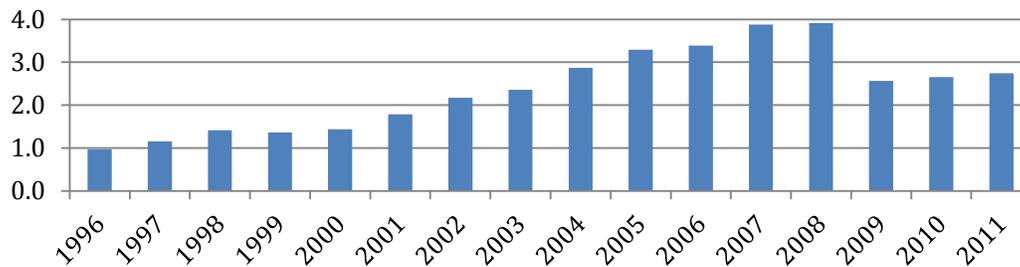
¹² *Id.*

¹³ *Id.*; Gary Gorton and Andrew Metrick, *Haircuts*, Federal Reserve Bank of St. Louis Review, November/December 2010, available at <http://bit.ly/vlbttQ>.

post additional margin in the case of certain declines in price. This is known as a “margin call.”¹⁴

There are no official statistics on the size of the repurchase agreement market, but it has grown considerably in the past 15 years. The Federal Reserve Bank of New York, which examines only repos financed by U.S. government securities primary dealers¹⁵ and therefore covers only a segment of the market, provides an idea of the market’s explosive growth. According to its data, while there were less than \$1 trillion of repos outstanding in 1996, that figure peaked at approximately \$4.5 trillion in the weeks before the investment firm Bear Stearns collapsed in 2008.¹⁶ [Note: Figure 1, below, reflects average daily amount, not peak amount]. Now, the amount stands at approximately \$2.8 trillion.¹⁷ Estimates of the total repo market prior to the crisis are as high as \$10 trillion to \$12 trillion, although these figures likely include some double counting.¹⁸ That the market’s size is not fully understood is troubling, and suggests a shortfall in repo supervision and regulation.¹⁹

**Figure 1: Repo Financing by U.S. Government Securities
Primary Dealers**
(average daily amount outstanding , in trillions of dollars)



¹⁴ David Longworth, *The Role of Margin Requirements and Haircuts in Procyclicality*, Bank for International Settlements, Committee on the Global Financial System, March 2010, available at <http://bit.ly/JBaq18>.

¹⁵ A U.S. government securities primary dealer is a firm that buys U.S. government bonds directly from the government, and resells them to others. Primary dealers participate consistently as counterparties to the New York Federal Reserve Bank to carry out U.S. monetary policy. There are currently 21 such firms. <http://bit.ly/evlLfU>.

¹⁶ Gary Gorton and Andrew Metrick, *Haircuts*, Federal Reserve Bank of St. Louis Review, November/December 2010, available at <http://bit.ly/vIbttQ>; SIFMA Statistics, available at <http://bit.ly/o0IW9f>, citing Federal Reserve Bank of New York.

¹⁷ *Id.* (This is currently outstanding, as of March 28, 2012).

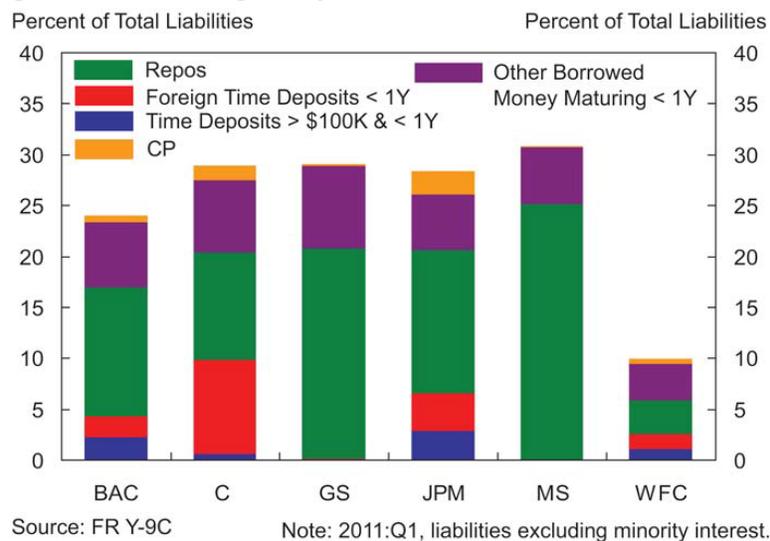
¹⁸ Peter Hördahl and Michael R. King, *Developments in repo markets during the financial turmoil*, Bank for International Settlements, December 2008, available at <http://bit.ly/IV66YK>; Gary Gorton and Andrew Metrick, *Haircuts*, Federal Reserve Bank of St. Louis Review, November/December 2010, available at <http://bit.ly/vIbttQ>.

¹⁹ Further complications in the repo market exist, but are beyond the scope of this paper. Specifically, problems unique to classic bilateral repo, which consists of two parties to a repo transaction, and tri-party repo, which utilizes a third party agent to clear trades, warrant further scrutiny.

Sources: Federal Reserve Bank of New York, SIFMA

Repo lending is still a prominent source of funding for large financial institutions. For example, as of December 31, 2011, JP Morgan Chase had more than \$197 billion in repo borrowing and \$235 billion in repo lending outstanding. Citigroup had more than \$164 billion in repo borrowing and \$153 billion in repo lending outstanding. Goldman Sachs had more than \$164 billion in repo borrowing and more than \$187 billion in repo lending outstanding.²⁰ Firms that rely so heavily on repos remain susceptible to the serious risks they pose. Figure 2, below, shows the extent to which the six largest bank holding companies depend on funding sources that the Financial Stability Oversight Council deems “less stable.” Repos, in green, are by far the largest such source.

Figure 2: Six Largest Bank Holding Companies’ Reliance on “Less Stable” Funding Sources



Source: Financial Stability Oversight Council Annual Report (2011)²¹

II. Changes in Bankruptcy Laws Gave Preferential Treatment to Repurchase Agreements.

The treatment of repos under bankruptcy law has undergone a transformation since repos were first introduced in 1917.²² This development has had profound impacts on repo markets and the broader financial system.

²⁰ JP Morgan Chase & Co. Form 10-k, For the fiscal year ended December 31, 2011, *available at* <http://bit.ly/Mgde6h>; Citigroup Inc. Form 10-K, For the fiscal year ended December 31, 2011, *available at* <http://citi.us/KcEnRv>; The Goldman Sachs Group, Inc. Form 10-K, For the fiscal year ended December 31, 2011, *available at* <http://bit.ly/IEj10T>.

²¹ FSOC Annual Report, Chart 7.1.10: Less-Stable Funding Sources at 6 Largest BHCs *available at* <http://1.usa.gov/IV6gPI>.

A central feature of bankruptcy law is the automatic stay, which stops lenders from taking any legal action to seize assets or collect debts once bankruptcy is filed.²³ The purpose of the stay is to facilitate an orderly resolution of the failed entity through the judicial process.²⁴ The automatic stay applied to repo lending when the practice first emerged, but several exemptions have slowly eviscerated the stay's application. These exemptions created incentives for repo lenders to preserve their investment by withdrawing funding at a borrower's first hint of imminent failure, or by seizing collateral and reselling it upon a borrower's default. When a sufficiently large number of lenders pull their funding or retrieve their collateral, panics ensue.²⁵

Whether the automatic stay applies depends in large part on how repos are categorized. Generally, if a transaction is considered a true sale, such that there is no ongoing relationship between the contracting parties, then the stay should not apply; in contrast, if a transaction is considered a loan, such that there is an ongoing relationship between the contracting parties, then the stay should apply.²⁶

Before 1982, no court had decided whether repo transactions are sales or loans.²⁷ However, a securities dealer's failure in 1982 prompted a bankruptcy court to examine the question. The court ruled that repos were secured loans and thus subject to a stay, prohibiting the repo lender from selling the securities that were held as collateral.²⁸ There was an immediate and forceful response to the ruling. First, industry protested, arguing that the ruling would leave lenders exposed to market fluctuations while they awaited a resolution of the bankruptcy proceedings. Industry contended that this arrangement would make financial institutions less willing to engage in repo transactions, and as a result, undermine liquidity in markets.²⁹ Second, then-Federal Reserve Chairman Paul Volcker objected. Because the Fed participates in the repo market to "fine-tune" its monetary policy by

²² Viral V. Acharya and T. Sabri Öncü, "The Repurchase Agreement (Repo) Market," *Regulating Wall Street: The Dodd-Frank Act and the New Architecture of Global Finance*, John Wilen & Sons, Inc. (2011).

²³ Enrico Perotti, *Systemic liquidity risk and bankruptcy exceptions*, Centre for Economic Policy Research Policy Insight No. 52, October 2010, available at <http://bit.ly/IVanv2>; David A. Skeel, Thomas H. Jackson, *Transaction Consistency and the New Finance in Bankruptcy*, 112 Colum. L. Rev 152 (January 2012).

²⁴ *Id.*

²⁵ Viral V. Acharya and T. Sabri Öncü, "The Repurchase Agreement (Repo) Market," *Regulating Wall Street: The Dodd-Frank Act and the New Architecture of Global Finance*, John Wilen & Sons, Inc. (2011).

²⁶ David A. Skeel, Thomas H. Jackson, *Transaction Consistency and the New Finance in Bankruptcy*, 112 Colum. L. Rev 152 (January 2012).

²⁷ Kenneth D. Garbade, *The Evolution of Repo Contracting Conventions in the 1980s*, Federal Reserve Bank of New York Economic Policy Review, May 2006, available at <http://bit.ly/JsTcWr>.

²⁸ *Id.*; Viral V. Acharya and T. Sabri Öncü, "The Repurchase Agreement (Repo) Market," *Regulating Wall Street: The Dodd-Frank Act and the New Architecture of Global Finance*, John Wilen & Sons, Inc. (2011).

²⁹ Kenneth D. Garbade, *The Evolution of Repo Contracting Conventions in the 1980s*, Federal Reserve Bank of New York Economic Policy Review, May 2006, available at <http://bit.ly/JsTcWr>.

adding or draining security reserves to adjust the nation's money supply,³⁰ Volcker feared that a stay would unnecessarily disrupt the Fed's operations.³¹

In response, Congress passed the Bankruptcy Amendments and Federal Judgeship Act of 1984, exempting from the automatic stay repos that were based on low-risk collateral such as U.S. Treasuries, federal agency securities, and bank certificates of deposit (CDs). Per Volcker's recommendation, the stay was drawn "in a relatively narrow manner" so as not to disrupt operations of "key repo markets."³² The result was that repo lenders received preferential treatment only when extremely safe, cash-like assets were used as collateral.

From the mid-1980s to the mid-1990s, repo collateral was confined largely to these safe and predictable securities. Then repo transactions started to include riskier securities as collateral.³³ As part of a series of decisions that lightened financial services regulation, amid forceful lobbying by the financial industry, Congress passed the Bankruptcy Abuse Prevention and Consumer Protection Act in 2005, which exempted mortgage-related securities and foreign sovereign debt from the stay.³⁴

Without a mandatory stay, firms are not required to go through the bankruptcy process to take permanent control of repo collateral. This preferential treatment relative to other creditors effectively gives repo lenders the first opportunity to seize and sell collateral, which creates a heightened risk of runs on financial institutions, thus magnifying systemic risk.

III. Treating Repo Loans as Sales Endangers the Financial System.

A. Preferential Treatment for Repo Lenders Leads to Sloppy Lending Practices and a Heightened Risk of Runs on Financial Institutions, which Magnifies Systemic Risk.

Because repo lenders receive preferential bankruptcy treatment relative to other lenders to seize and sell collateral, they are likely to underestimate the risks posed by repo lending. Repo lenders are likely to believe that if a borrower becomes stressed, they are protected

³⁰ L. Randall Wray, *Understanding Modern Money: The Key to Full Employment and Price Stability*, Edward Elgar Publishing Limited, 1998.

³¹ Kenneth D. Garbade, *The Evolution of Repo Contracting Conventions in the 1980s*, Federal Reserve Bank of New York Economic Policy Review, May 2006, available at <http://bit.ly/JsTcWr>.

³² *Id.*

³³ Viral V. Acharya and T. Sabri Öncü, "The Repurchase Agreement (Repo) Market," *Regulating Wall Street: The Dodd-Frank Act and the New Architecture of Global Finance*, John Wilen & Sons, Inc. (2011).

³⁴ Bankruptcy Code, Definitions, 11 U.S.C.A. § 101(47); Bankruptcy Code, Contractual right to liquidate, terminate, or accelerate a repurchase agreement, 11 U.S.C.A § 559.

by margin, and if a borrower fails, they can take immediate control of the collateral and sell it without suffering a loss.³⁵

In reality, repos' special protections engender sloppy lending practices that expose repo lenders to undue risk. Repo lenders are likely to make more loans than is prudent, and also permit borrowers to use unstable collateral, such as mortgage-backed securities or foreign sovereign debt. This leaves repo lenders vulnerable to the possibility that the collateral will decline in value and the repo borrower will fail to comply with the repo agreement.³⁶

In times of stress, lenders fear being stuck with collateral that has decreased in value. To protect themselves, they are likely to require more margin, refuse to roll over the contract (effectively terminating the loan), or, in the event of a borrower's default, rush to sell the securities used as collateral. Any of these results is apt to put a company that depends on repo borrowing in grave jeopardy.³⁷

The demise of one company that loses repo funding can prompt repo lenders to end their lending agreements with other companies as well. The result is that the cost of borrowing increases and credit freezes, as lenders become more risk-averse. This can endanger the entire financial system.³⁸

These systemic risks became reality in 2008. Repo lending reached record levels in large part because lenders perceived collateral consisting of mortgage-backed securities as posing little risk of falling in value. When the housing market collapsed and lenders realized that mortgage-backed securities were much riskier than they had thought, they insisted on additional margin. However, borrowing institutions were unable to meet their lenders' margin calls. Unable to gauge the value of collateral or trust repo borrowers' ability to make good on their obligations, repo lenders pulled out of their contracts en masse. This triggered the first waves of instability during the crisis.³⁹

Bear Stearns was a significant repo market participant in the run-up to the financial crisis. In fact, Bear increased its dependence on repos considerably. In 1990, repo borrowing

³⁵ See generally Enrico Perotti, *Systemic liquidity risk and bankruptcy exceptions*, Centre for Economic Policy Research Policy Insight No. 52, October 2010, available at <http://bit.ly/IVanv2>

³⁶ See generally Viral V. Acharya and T. Sabri Öncü, "The Repurchase Agreement (Repo) Market," *Regulating Wall Street: The Dodd-Frank Act and the New Architecture of Global Finance*, John Wilen & Sons, Inc. (2011); David A. Skeel, Thomas H. Jackson, *Transaction Consistency and the New Finance in Bankruptcy*, 112 Colum. L. Rev 152 (January 2012).

³⁷ *Id.*

³⁸ Viral V. Acharya and T. Sabri Öncü, "The Repurchase Agreement (Repo) Market," *Regulating Wall Street: The Dodd-Frank Act and the New Architecture of Global Finance*, John Wilen & Sons, Inc. (2011).

³⁹ *Id.*

accounted for 7 percent of its liabilities; by 2008, it accounted for 25 percent.⁴⁰ This amounted to 8 times its equity capital.⁴¹ Bear's increased reliance on repo borrowing may have been encouraged by the special bankruptcy protections given to mortgage-related repo transactions in 2005 that are described above. Bear's former Chairman and CEO, James Cayne testified to the Financial Crisis Inquiry Commission that "we made a conscious decision" in 2006 to move to repos.⁴² It is estimated that Bear's use of overnight repos grew to between \$50 billion and \$60 billion in the months prior to March 2008.⁴³

Bear began to have funding trouble in 2007, as the mortgage market weakened. Two of Bear's hedge funds relied extensively on repo borrowing agreements that were collateralized by sub-prime mortgages. As these mortgages defaulted and the collateral lost value, Bear's lenders required the funds to post additional margin. The funds defaulted and their lenders began seizing the collateral. On June 19, 2007, Merrill Lynch seized \$850 million of collateralized mortgage obligations and tried to auction them, but was able to sell only about \$100 million worth. Merrill's inability to sell the collateral prompted Bear's other lenders to dramatically lower the prices at which they were willing to sell similar repo collateral, driving down these assets' values further and further. Additionally, when Bear's hedge funds defaulted, Bear's lenders became wary of the entire company. Bear was forced to write down assets, and Bear's lenders—mostly mutual funds—required the firm to post more margin and pay higher repo rates. This increased the funding stresses on the firm.⁴⁴

In March 2008, Bear reached a breaking point, as many of its counterparties refused to lend to it. Fearing that "the sudden failure of Bear Stearns likely would have led to a chaotic unwinding of positions,"⁴⁵ the government's highest ranking financial officials—including Fed Chairman Ben Bernanke, then-Treasury Secretary Hank Paulson, and then-New York Fed President and current Treasury Secretary Timothy Geithner—brokered a deal in which Bear would be acquired by JPMorgan Chase.⁴⁶

⁴⁰ Mark J. Roe, *The Derivatives Market's Payment Priorities as Financial Crisis Accelerator*, 63 Stan. L. Rev. 539 (2011).

⁴¹ *Id.*

⁴² Marcy Gordon, *Ex-CEO: 'Market forces' killed Bear Stearns*, THE ASSOCIATED PRESS, May 5, 2010, available at <http://on.msnbc.com/IW2hkl>.

⁴³ *Id.*

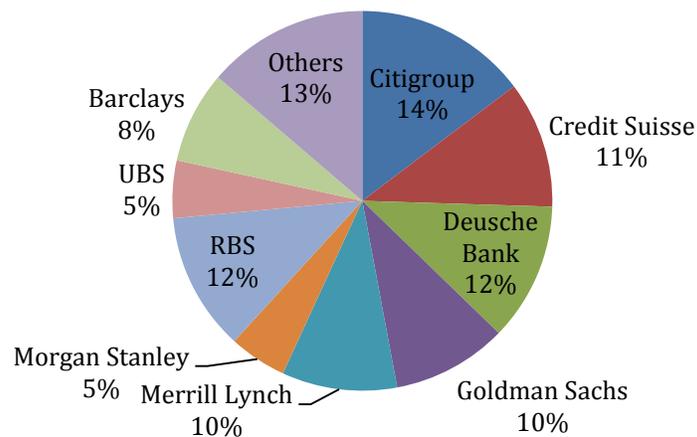
⁴⁴ Jody Shenn, *Merrill Sells Portion of \$850 Million Bear Funds*, BLOOMBERG NEWS, June 21, 2007, available at <http://bloom.bg/KYxSCW>; Jody Shenn and Bradley Keoun, *Bear Stearns Rivals Reject Fund Bailout in LTCM Redux*, BLOOMBERG NEWS, June 25, 2007, available at <http://bloom.bg/IW1YGv>; Viral V. Acharya and T. Sabri Öncü, "The Repurchase Agreement (Repo) Market," *Regulating Wall Street: The Dodd-Frank Act and the New Architecture of Global Finance*, John Wilen & Sons, Inc. (2011).

⁴⁵ Yalman Onaran, *Fed Aided Bear Stearns as Firm Faced Chapter 11, Bernanke Says*, BLOOMBERG NEWS April 2, 2008, available at <http://bloom.bg/JkHCuG>.

⁴⁶ Kate Kelly, *Inside the Fall of Bear Stearns*, THE WALL STREET JOURNAL, May 9, 2009, available at <http://on.wsj.com/KZ2c0h>; Robin Sidel, Dennis K. Berman, and Kate Kelly, *JP Morgan Buys Bear in Fire Sale*, As

In response to the panic in the market and the slowdown in lending, the Federal Reserve engaged in a series of additional extraordinary actions. It invoked its authority to act in “unusual and exigent circumstances” under Section 13(3) of the Federal Reserve Act to lend to banks and nonbanks alike.⁴⁷ The Fed provided low-cost repo loans to investment banks that it deemed systemically important. These loans were issued through programs called the Term Securities Lending Facility (TSLF) and Primary Dealer Credit Facility (PDCF). According to James Andrew Felkerson, a graduate student under the direction of Levy Scholar L. Randall Wray at the University of Missouri-Kansas City, the cumulative amount lent through these two facilities totaled approximately \$11 trillion.⁴⁸ As shown in Figures 3 and 4 below, Citigroup, Credit Suisse, Deutsche Bank, Goldman Sachs, and Merrill Lynch participated most heavily in the TSLF.⁴⁹ Merrill Lynch, Citigroup, Morgan Stanley, Bear Stearns, and Bank of America participated most heavily in the PDCF.⁵⁰

Figure 3: TSLF Borrowing



Source: Government Accountability Office.

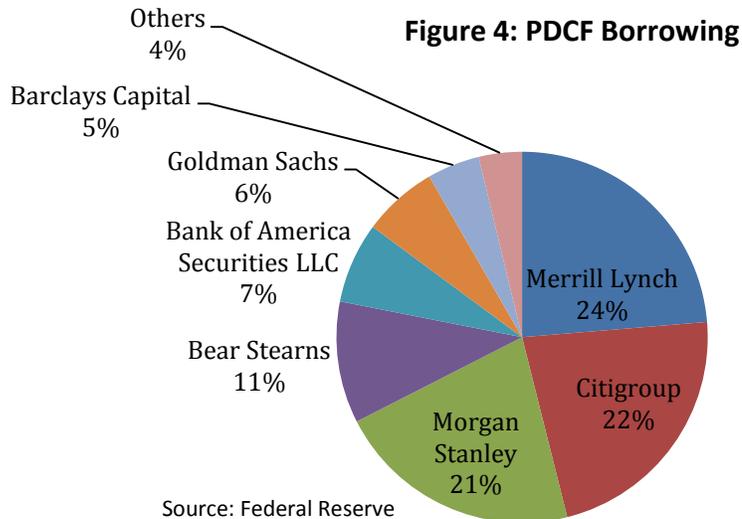
Fed Widens Credit to Avert Crisis, THE WALL STREET JOURNAL, May 17, 2008, available at <http://on.wsj.com/MgxF3g>.

⁴⁷ James Andrew Felkerson, *\$29,000,000,000,000: A Detailed Look at the Fed's Bailout by Funding Facility and Recipient*, THE LEVY ECONOMICS INSTITUTE OF BARD COLLEGE WORKING PAPER COLLECTION, December 2011, available at <http://bit.ly/tAKvKw>.

⁴⁸ *Id.* (The Fed lent on a non-term adjusted basis \$1.940 trillion through the TSLF and \$8.950 trillion through the PDCF.)

⁴⁹ *Id.* at Figure 8, Source: GAO.

⁵⁰ *Id.* At Table 9, Source: Federal Reserve.



While these lending facilities lowered borrowing costs for investment banks, they did not prevent the run on Lehman Brothers and its ensuing failure approximately six months later. Like Bear, Lehman depended heavily on repos to finance its daily activities. When other institutions lost confidence in the quality of Lehman's collateral and in Lehman's viability generally, they withdrew their repo funding. Lehman's access to the Fed's emergency lending facilities might have saved the firm from an acute liquidity crisis. But Lehman's problems ran deeper than needing merely short-term loans to survive a temporary cash-flow shortage. Rather, the firm needed substantial capital that the government was unwilling to provide.⁵¹ The next section discusses how firms, including Lehman, exploited repos to mask their inadequate capitalization.

B. Dressing Up Repo Loans as Sales on Repo Borrowers' Balance Sheets Enables Borrowers to Depict Themselves as Healthier Than They Really Are.

Whether a repo transaction is treated as a sale or loan not only affects repo lenders' rights to seize and sell repo collateral; it also affects repo borrowers' ability to exploit accounting loopholes to manipulate their balance sheets. Repo transactions are legally defined as sales, but because they have all of the characteristics of loans, they are usually booked as loans on company balance sheets to give a more accurate picture of a firm's financial condition.⁵² As a result, a borrower's financial statement normally lists its repo borrowing as liabilities.⁵³

⁵¹ Testimony of Federal Reserve Chairman Ben S. Bernanke before the House of Representatives Committee on Financial Services, "Lessons from the Failure of Lehman Brothers" (111th Cong., April 20, 2010), available at <http://1.usa.gov/aGEf83>.

⁵² William H. Widen, *The Arbitrage of Truth: Combating Dissembling Disclosure, Derivatives, and the Ethic of Technical Compliance*, 66 U. Miami L. Rev. 393, Winter 2012; David A. Skeel, Thomas H. Jackson, *Transaction Consistency and the New Finance in Bankruptcy*, 112 Colum. L. Rev 152 (January 2012).

⁵³ *Id.*

However, under certain circumstances, repos can be booked as sales. This accounting gimmick allows a company to temporarily hide potentially toxic assets and use the money borrowed from repo loans to pay down company liabilities. One such example was a maneuver known in the industry as Repo 105. While the Repo 105 loophole has been closed, repo contracts can still be written to permit companies to account for repo loans as sales on their balance sheets.

Repo 105 was borne out of an accounting rule issued in 2000, known as Financial Accounting Standards Board (FASB) Statement No. 140. Under the rule, repo transactions with certain technical characteristics could be booked as sales. The borrower could use the cash it received to pay down its debt, while leaving off its balance sheet the securities provided as collateral. As a result, firms holding toxic mortgage-backed securities could use Repo 105 to portray their financial condition as better than it actually was.⁵⁴

Lehman Brothers took part in perhaps the most notorious exploitation of Repo 105.⁵⁵ Lehman began conducting Repo 105 transactions in 2001 and engaged in them most actively at the end of each quarter in 2007 and 2008. This allowed the firm to temporarily remove as much as \$50 billion dollars of debt from its balance sheet, and to mask its inadequate capitalization and extremely high leverage.⁵⁶

In 2009, the Financial Accounting Standards Board (FASB) modified Statement No. 140 by issuing Statement No. 166, which closed the Repo 105 loophole by constraining the ability of companies to treat repo transactions as sales on their balance sheets.⁵⁷ According to Statement No. 166, if the terms of a repo contract evince the parties' intent to relinquish control and completely transfer the security's risk, then it is a sale. However, if the terms do

⁵⁴ Susanne Craig and Mike Spector, *Repos Played a Key Role in Lehman's Demise*, *The Wall Street Journal*, March 13, 2010, available at <http://on.wsj.com/K2qdEA>; Viral V. Acharya and T. Sabri Öncü, "The Repurchase Agreement (Repo) Market," *Regulating Wall Street: The Dodd-Frank Act and the New Architecture of Global Finance*, John Wilen & Sons, Inc. (2011).

⁵⁵ Other major banks, including Bank of America and Citigroup, have also hidden debt through repos. *The Wall Street Journal* suggests that banks carried more risk than their investors or customers could easily see, and then juggled the risk just prior to filing their quarterly financial reports. The banks have maintained the accounting practices were not intentional. Michael Rapaport, *BofA Admits Hiding Debt*, *THE WALL STREET JOURNAL*, July 10, 2010, available at <http://on.wsj.com/IVmPLm>; Michael Rapaport, *BofA, Citi Made "Repos" Errors*, *THE WALL STREET JOURNAL*, May 28, 2010, available at <http://on.wsj.com/JkPJav>.

⁵⁶ *Lehman's Demise and Repo 105: No Accounting for Deception*, Knowledge@Wharton, March 31, 2010, available at <http://bit.ly/9x4mOZ> (Wharton Finance Professor Richard J. Herring contends that Repo 105's "main role was to help the firm misrepresent its actual position to the public."); See also Report of Exam'r Anton R. Valukas, at 6, *In re Lehman Bros. Holdings Inc.*, 439 B.R. 811 (Bankr. S.D.N.Y. 2011), available at <http://bit.ly/bkAXWW> (Lehman used Repo 105 to reduce balance sheet and leverage in order to meet market expectations and avoid a ratings downgrade).

⁵⁷ Chun-Chia (Amy) Chang, Joanne Duke, Su-Jane Hsieh, *A Loophole in Financial Accounting: A Detailed Analysis of Repo 105*, *Journal of Applied Business Research* (Vol 27, No 5, 2011), available at <http://bit.ly/JBS4Nt>; Press Release, Fitch Ratings, "FASB Revisit of Repo Accounting Could Close Loophole," March 28, 2012, available at <http://bit.ly/I6xUNA>.

not evince the repo parties' intent to relinquish control and completely transfer the security's risk, then it is a loan.⁵⁸

Despite this recent reform, repo contracts can still be written to permit companies to account for repo loans as sales on their balance sheets. Indeed, they have been. For example, MF Global, the failed investment firm managed by former-Sen. Jon Corzine (D-N.J.), reportedly engaged in repo transactions in part to take assets off its balance sheet and make the company seem healthier than it actually was.

MF Global's repo contracts were not structured with typical overnight maturity; rather, they were structured as "repo-to-maturity," with the bonds maturing at the same time as the repo lending agreements were slated to end. This, according to MF Global's Securities and Exchange Commission (SEC) filings, meant these transactions warranted classification as sales because the company had relinquished control over the bonds during the repo contract period and would never reclaim them under the terms of the contract.⁵⁹ But this reasoning was flawed. Corzine admitted in congressional testimony that MF Global was still exposed to loss if the bonds fell in value. Thus it did not relinquish effective control over the bonds and, as a result, its deal with its counterparties was not a true sale but in effect a loan.⁶⁰ If MF Global had relinquished effective control over the bonds (constituting a true sale), its counterparties would have suffered losses if the bonds fell in value. But when the bonds lost value, MF Global was required to meet margin calls—and failed to do so because it was inadequately capitalized. It had no choice but to declare bankruptcy.⁶¹

The continued use of repos to manipulate balance sheets proves that the 2009 FASB amendment did not completely fix the problem. Some analysts have argued that a more vigilant SEC could spot "whether some window-dressing is going on" by comparing irregularities between a firm's end-of-quarter figures on outstanding repos and its

⁵⁸ Chun-Chia (Amy) Chang, Joanne Duke, Su-Jane Hsieh, *A Loophole in Financial Accounting: A Detailed Analysis of Repo 105*, Journal of Applied Business Research (Vol 27, No 5, 2011), available at <http://bit.ly/JBS4Nt>.

⁵⁹ Bethany McLean, *Did Accounting Help Sink Corzine's MF Global?*, Reuters, November 1, 2011, available at <http://reut.rs/rRh1zM>.

⁶⁰ Anthony H. Catanach Jr. & J. Edward Ketz, *MF Global and Repo Accounting*, GRUMPY OLD ACCOUNTANTS, November 10, 2011, available at <http://bit.ly/uAd0MC>; Lisa Pollack, *Effectively Controlling Assets, MF Global Edition*, FT ALPHAVILLE, December 8, 2011, available at <http://on.ft.com/tOU2GV>; Testimony of Jon S. Corzine before the House of Representatives Committee on Agriculture (112th Cong., December 8, 2011), available at <http://1.usa.gov/vqnUd3> ("MF Global retained, however, the risk that the debt securities might default or be restructured. If the debt securities defaulted or were restructured, then MF Global would not be paid in full at their maturity, even though MF Global would still have the obligation to buy back the debt securities from the Counterparty in full (at par).")

⁶¹ Christopher Elias, *Off balance sheet repo risks come back to bite*, THOMSON REUTERS NEWS & INSIGHT, November 17, 2011, available at <http://bit.ly/tS830i>.

quarterly averages.⁶² In theory, regulators could spot a firm's suspicious transfer of assets off its balance sheet.⁶³ SEC vigilance is necessary but not sufficient. Additionally, a new rule is warranted that requires any "sale" that includes a trigger exposing a borrower to risk under a contract, such as a margin call, to be correctly labeled as a liability on a firm's balance sheet.

IV. Recent Financial Reforms Failed to Address Risks Posed By Repurchase Agreements.

The Dodd-Frank Wall Street Reform and Consumer Protection Act of 2010 did not directly address the threat to financial stability that repos pose. While the Act required several studies of bankruptcy reform, it did not alter bankruptcy treatment of repos.⁶⁴ As a result, it maintained the special protections that exacerbate systemic risk.

In fact, the regulatory implementation of the Dodd-Frank Act may cause a growth in the repo market. Repo transactions would receive a blanket exclusion from the proposed implementation of the Volcker Rule, a statute that prohibits bank holding companies and their affiliates from engaging in proprietary trading. Excluding repo transactions would create a massive loophole allowing bank holding companies and their affiliates to use repos to engage in proprietary trading.

Recent developments have illustrated how repo transactions that seem simple and risk-free can in fact be thinly veiled proprietary trades. For example, MF Global first bought toxic, short-term European sovereign debt, then engaged in repo-to-maturity transactions, with the European bonds maturing at the same time as the repo agreement (as discussed above). MF Global's plan was to profit from the difference between the rate it received from the bonds' interest payments and the rate it paid under the repo agreement—an arbitrage proprietary trade. The trade backfired when the bonds lost value and the firm could not meet its margin calls.⁶⁵

Fortunately, MF Global was not a systemically important financial institution, meaning that its failure did not create the type of systemic instability that would likely lead to federal intervention. Yet the trades that MF Global orchestrated—and many other variations like them—could also be performed by bank holding companies and their affiliates whose failure would pose a systemic risk. Those banks could conceivably engage in the same risky

⁶² Helen Avery, *Repo: MF Global exposes short-term risks*, EuroMoney, December 2011, available at <http://bit.ly/J6H38w>.

⁶³ *Id.*

⁶⁴ David A. Skeel, Thomas H. Jackson, *Transaction Consistency and the New Finance in Bankruptcy*, 112 Colum. L. Rev 152 (January 2012).

⁶⁵ Izabella Kaminska, *MF Global and the repo-to-maturity trade*, FT ALPHAVILLE, October 31, 2011, available at <http://on.ft.com/ryHLk8>.

activities that led to MF Global's failure. If similar activities were to occur at Goldman Sachs or Morgan Stanley, for example, the results could be disastrous.

V. Policy Proposals

First, Congress should roll back the bankruptcy treatment of repos to reflect the pre-2005 law. Doing so would impose the requisite discipline on lenders and foster financial stability without hampering the Fed's monetary operations. In making this change, Congress should distinguish between safe and unsafe collateral. Repo lenders should be permitted to sell safe, cash-like collateral (like Treasuries) without participating in bankruptcy proceedings. But risky assets (like mortgage-backed securities or foreign sovereign debt) should be subject to the bankruptcy stay. Forcing lenders to maintain ownership of risky assets that are in jeopardy of losing value during a bankruptcy process should impose discipline on them and provide the incentive to require safer collateral. A policy that encourages the use of safer collateral and decreases the likelihood of fire sales of assets would make the financial system more stable.

Additionally, the final regulations implementing the Volcker Rule should not exclude repo transactions from the statute's ban on proprietary trading. Treating repo transactions as permitted activities under the Volcker Rule invites "massive and unnecessary opportunities for abuse" and is likely to lead to excessively risky activities, as Americans for Financial Reform has pointed out in comments to the regulators.⁶⁶ The proposed rule has the potential to increase the use of unstable funding sources and artificially inflate asset values.⁶⁷ The result may be the fueling of another bubble on a scale as great as, if not greater than, the recent housing bubble. Such a development would almost assuredly undermine financial stability, the opposite of the Volcker Rule's purpose.

Conclusion

The systemic risks created by repos were revealed in 2008. The damage was so severe that the Federal Reserve engaged in extraordinary and unprecedented action to rescue the nation's largest financial institutions from the brink of failure.⁶⁸ Repo lending continues to be a prominent source of funding for large financial firms. Unless its risks are mitigated, the financial system remains in perpetual danger of calamity.

⁶⁶ Americans for Financial Reform, Comment on Proposed Rule to Implement Section 619 of the Dodd-Frank Act, available at <http://bit.ly/yWYfDA>.

⁶⁷ *Id.*

⁶⁸ L. Randall Wray, *Improving Governance of the Government Safety Net in Financial Crisis*, THE LEVY ECONOMICS INSTITUTE OF BARD COLLEGE RESEARCH PROJECT REPORT, April 2012, available at <http://bit.ly/Kj17ly>.