

Economic Policy Program

Financial Regulatory Reform Initiative

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ABOUT THE FINANCIAL REGULATORY REFORM INITIATIVE

The Financial Regulatory Reform Initiative (FRRI) is co-chaired by Martin Baily and Phillip Swagel. Composed of five task forces, FRRI's goal is to conduct an analysis of Dodd-Frank to determine what is and what is not working along with recommendations to improve the system.

DISCLAIMER

This report is the product of the BPC Financial Regulatory Reform Initiative with participants of diverse expertise and affiliations, addressing many complex and contentious topics. It is inevitable that arriving at a consensus document in these circumstances entailed compromises. Accordingly, it should not be assumed that every member is entirely satisfied with every formulation in this document, or even that all participants would agree with any given recommendation if it were taken in isolation. Rather, this group reached consensus on these recommendations as a package.

The findings and recommendations expressed herein are solely those of the task force and do not necessarily represent the views or opinions of the Bipartisan Policy Center, its founders, or its Board of Directors.

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Executive Summary

The recent financial crisis made clear that insufficient attention was paid to sources of systemic risk that can threaten the stability of the financial system and, with it, the real economy. Moreover, the crisis showed that it is critical for government officials to have and be able to use the tools necessary to prevent and mitigate systemic threats. This paper analyzes several key changes that Congress made to address systemic risk in the wake of the crisis. It then makes five specific recommendations that both Congress and financial regulatory agencies should take to ensure a more effective response to future financial panics and crises. These recommendations address: Federal Reserve emergency lending powers, Federal Deposit Insurance Corporation (FDIC) emergency debt guarantees, brokerdealer access to collateralized lending from the Federal Reserve to ensure necessary liquidity in the financial system, Financial Stability Oversight Council (FSOC) authorities and transparency, and tailored regulation and supervision by the Federal Reserve.

In the years preceding the crisis, high levels of risk accumulated within the financial system. Poor underwriting, systematic mispricing of risk, fraud, and a fundamental lack of discipline were among the factors that contributed to broad declines in asset prices, including sharp declines in some prices during the financial panic, and the loss of confidence that ultimately threatened to bring down the entire financial system. These factors, combined with high levels of leverage, gave some financial institutions—both regulated and unregulated—little margin for error. The systemic implications of this accumulation of risk were not adequately recognized or understood by management, investors, regulators, supervisors, policymakers, and stakeholders. The nature and extent of practices that led to that accumulation of risk likewise were not adequately understood.

Part of this failure to identify and understand the buildup of risk stemmed from the fact that there was no government entity, or coordinated group of entities, expressly responsible for overseeing financial stability or identifying potential threats to the broad financial system. This lack of so-called "macro-prudential supervision" made it possible for each financial regulatory agency to take false comfort in thinking that certain problems were someone else's job. This problem was compounded by data that were incomplete and not standardized, leading to situations where different agencies had different, partial, or unclear views of what was happening in real time. Further, regulators did not use existing authority to limit or prevent some kinds of risk from building within the financial system.

Adding to the problem, money-like liabilities accumulated in nonbank financial institutions, which were not subject to the same supervisory oversight as banks, and for which there

i Macro-prudential supervision involves oversight geared toward ensuring the safety and soundness of the overall financial system, while micro-prudential supervision refers to monitoring and ensuring the safety and soundness of individual financial institutions.

were fewer regulatory tools to address run risk. In particular, nonbank broker-dealers like Lehman Brothers, Bear Stearns, and Merrill Lynch, as well as a proliferation of structured investment vehicles (SIVs), Held large quantities of what later proved to be mispriced and poorly underwritten assets, while relying on short-term funding sources that ran or threatened to run with the onset of the crisis.

Government authorities found their traditional tools to address run and liquidity problems to be inadequate and not designed to address problems occurring outside traditional banks. Faced with a potential economic catastrophe, the Federal Reserve and the FDIC were forced to use their existing authority in creative ways in an effort to stabilize markets and avoid panic. For example, they guaranteed the debt of certain financial institutions and provided liquidity to otherwise solvent nonbank institutions.

The Dodd-Frank Wall Street Reform and Consumer Protection Act of 2010 (Dodd-Frank)¹ was Congress's primary response to the crisis. It addressed the regulatory gaps that had allowed the buildup of systemic risk in a number of constructive ways:

- Enhanced prudential standards, such as higher levels of capital and liquidity, were mandated for systemically important financial institutions (SIFIs)—whether "bank SIFIs" or "nonbank SIFIs"²—in order to make these institutions safer and better able to withstand shocks and losses without failing;
- Enhanced resolution authority was given to the FDIC which, along with mandated resolution planning, will make it far more possible for the federal government to allow the largest financial firms to fail in an orderly manner without damaging the broader financial sector;
- A new council of regulators, the FSOC, was created specifically to coordinate financial regulation and supervision and to monitor systemic risk, aided by another new body, the Office of Financial Research (OFR);
- The FSOC was provided with the authority to designate any U.S. nonbank financial company as a nonbank SIFI if the FSOC determines by a two-thirds vote of its members that the company "could pose a threat to the financial stability of the United States." Designation authority allows the FSOC to bring systemically

make money on the difference between interest rates on short-term debt they typically use to fund themselves and the higher rates paid on the longer-term assets in which they invest and hold as collateral. Prior to the crisis, SIVs often profited in the short run by holding securities backed by mortgages and collateralized debt obligations while

these large institutions had more risk on their books than previously thought.

[&]quot;Note, however, that broker-dealers that were subsidiaries of bank holding companies were, in general, subject to the same run risks as independent broker-dealers.

iii Also known as "conduits," SIVs are institutions, often subsidiaries of a larger financial institution, that attempt to make money on the difference between interest rates on short-term debt they typically use to fund themselves and

important nonbanks "within the perimeter" of increased federal oversight that in the past has applied primarily to traditional banking organizations;

- The Consumer Financial Protection Bureau was created to establish a single set of rules for consumer financial products and to enhance consumer financial protection; and
- Derivatives activities were made subject to more centralized clearing and greater transparency.

These and other provisions of Dodd-Frank have helped make the U.S. financial system safer and more stable than before the crisis.⁴

Certain provisions of Dodd-Frank, however, are cause for concern, because they unnecessarily restrict the ability of the Federal Reserve and the FDIC to provide short-term liquidity to the financial system to mitigate the real-economy impact of a financial panic or crisis and they also restrict the ability to guarantee the debt of healthy financial companies in similar circumstances. In addition, Dodd-Frank did not adequately address the provision of temporary liquidity to certain nonbanks that, in a modern financial system, hold substantial quantities of runnable liabilities that are not bank deposits. The Act did attempt to address the issue of macro-prudential oversight in part by creating the FSOC, but it did not give the FSOC sufficient authority to carry out the duties assigned to it. Finally, although Congress wisely realized the importance of tailoring the regulation and supervision of the newly designated nonbank SIFIs by the Federal Reserve, there are restrictions on and concerns about the Federal Reserve's ability to achieve these goals. This paper addresses each of these concerns.

Recommendation 1: Congress should restore the ability of the Federal Reserve to make emergency loans to individual non-depository institutions.

Dodd-Frank removed the ability of the Federal Reserve to provide emergency discount-window lending to an individual person, partnership, or corporation (other than an individual depository institution). Instead, such lending to a non-depository institution may only be provided to participants in programs or facilities that have "broad-based eligibility"; in other words, it is no longer permitted to provide an emergency loan to a nonbanking institution on a "one-off" basis.⁵

The Act preserves the ability of the Federal Reserve to make emergency loans on a programmatic basis to groups of nonbanking companies, which was one of the most effective tools the agency used during the crisis to inject stabilizing liquidity into the financial system. However, the agency's emergency lending to individual companies, while unpopular, was also at times very effective in staving off far worse financial stability problems. Most notably, emergency loans on a "one-off" basis to AIG prevented the type of system-wide disruption and disorderly failure experienced by Lehman Brothers. The same proved true with respect to the emergency loans or guarantees provided to Bear Stearns. All such loans were ultimately repaid with interest.

The hope of Dodd-Frank is that this type of emergency lending to an individual company to stave off failure will no longer be necessary in light of the Act's creation of Orderly Liquidation Authority for the FDIC, complete with a new source of government liquidity, that will enable that agency to resolve a failing large financial company in an orderly manner. This hope may well prove to be realized, as BPC's Failure Resolution Task Force made clear in its recommendations related to Orderly Liquidation Authority and the promising single-point-of-entry approach to using that authority.⁶

Yet, the future is uncertain. It is impossible to predict whether there will be a similar or different type of compelling need—whether caused by a financial crisis or the desire to avoid one—to make an emergency loan to an individual company to preserve financial stability. In 2008, U.S. government officials were fortunate and grateful to have such flexible, "break-the-glass-in-an-emergency" authority to address unforeseen problems at individual firms. Moreover, they used that authority prudently and in a limited way, however unpopular it proved to be. Future government officials need to have that same emergency authority to address future unanticipated problems that threaten financial stability.

To be sure, such extraordinary authority should be reserved for true emergencies. Indeed, that is precisely what occurred with the previous authority to make emergency loans to single non-depository institutions: such authority had been created in the 1930s, but was never used to any significant degree for more than 70 years until the onset of the recent financial crisis. To ensure the emergency nature of such authority, legislative change to reinstate it should establish appropriate thresholds so that the loans could be made only in truly exigent circumstances.

<u>Recommendation 2</u>: Congress should eliminate the Dodd-Frank requirement for the FDIC to gain prior congressional approval to provide emergency guarantees to debt issued by depository institutions or their affiliates.

In October 2008, governments around the world coordinated their efforts to stem the unfolding financial panic by announcing broad guarantees of debt issued by their banking organizations. The U.S. government joined this effort through the FDIC's creative use of its bank resolution authority, in particular by using the "systemic risk exception" to the "least cost resolution" requirement. While that exceptional authority had been thought to relate to the resolution of an individual failing depository institution, it was used during the financial crisis to guarantee newly issued, longer-term debt by large bank and savings and loan holding companies, quite apart from the impending failure of an individual bank. By nearly all accounts, this Temporary Liquidity Guarantee Program played a material role in quelling the financial panic and restoring confidence in the banking system, and it did so in a prudent manner in which the FDIC earned a net profit of \$9.3 billion for the government.

Dodd-Frank curtailed the ability of the FDIC to use the systemic risk exception in such a broad manner; instead, going forward it may only be used in circumstances where an insured depository institution has failed, and only "for the purpose of winding up the insured depository institution." As a result, the authority arguably can no longer be used, as it was

in the crisis, to provide "open bank assistance" or, ¹¹ more generally, to take financial stability actions that are only loosely related to a specific depository institution, such as guaranteeing debt issued by depository institution holding companies on a programmatic basis.

At the same time, however, Dodd-Frank expressly and appropriately recognized the value of the FDIC providing, "during times of severe economic stress,"¹² programmatic guarantees of debt issued by healthy insured depository institutions and their affiliates in order to address a "liquidity event" affecting the ability of such institutions to obtain funding.¹³ The task force views this as a positive lesson learned from the financial crisis and supports the express establishment of this new tool for fighting financial panic.

Unfortunately, however, while Congress imposed prudent controls to govern the use of this new debt guarantee authority, in one instance it went too far: before any specific guarantee may be issued, the FDIC must obtain a joint resolution of approval from Congress. ¹⁴ While procedures are included in Dodd-Frank to fast-track such a joint resolution, there can be no assurance that approval would occur or, if it did occur, that it would be swift in coming. The resulting potential for inaction or inordinate delay is too high a hurdle to impose when effective, speedy action is called for, as will almost certainly be the case in any financial crisis—and was indeed the case in 2008. While effective controls on this broad authority are needed, other controls imposed by the new provision in Dodd-Frank would be sufficient to avoid potential abuses of this new authority, without the need for separate congressional approval through a joint resolution. The task force therefore recommends that the joint resolution approval requirement be eliminated.

Recommendation 3: Broker-dealers owned by regulated SIFIs should be granted access to collateralized liquidity from the Federal Reserve, comparable to access provided to depository institutions, to help address the liquidity needs of the U.S. financial system. Similar access should be provided to a broker-dealer not owned by a SIFI where the broker-dealer's balance sheet makes it especially vulnerable to runs. Access to such liquidity, similar to discount-window lending, should only be provided subject to terms and conditions, including supervisory conditions, established by the Federal Reserve in consultation with the Securities and Exchange Commission (SEC).

Containing the potential damage from a crisis once it starts is only part of the battle. It is far better to prevent systemic threats from occurring in the first place. In this regard, there are important steps that can and should be taken to further improve the safety and resilience of the financial system.

In particular, at the core of every financial crisis is the potential for a run on at least one type of liability. The combination of deposit insurance and discount-window lending has proved to be an effective set of tools for reducing the threat of runs on deposits at commercial banks. However, there has been a pronounced trend in the U.S. financial system to fund an increasing proportion of financial assets outside the banking system, in

many cases with short-term non-deposit liabilities such as money market funds, repurchase agreements, and commercial paper (including asset-backed commercial paper). It was precisely these sorts of non-deposit, money-like liabilities that proved vulnerable to runs during the financial crisis, yet the government did not have the same tools to address these vulnerabilities as it has with depository institutions. As a result, what began as smaller and more contained liquidity problems at particular nonbank firms quickly spread throughout the system. The U.S. Treasury, the Federal Reserve, and the FDIC creatively devised a number of emergency liquidity facilities to help prevent an even greater financial panic. Eventually, these emergency government efforts proved successful, but not for a substantial period of time and only with the commitment of enormous amounts of government resources.

Accordingly, it is important to recognize the changed funding structure of the U.S. financial system and adopt policies that have the potential to address significant run risk at non-depository institutions *before* runs occur, panic is ignited, and emergency measures are required. Enhanced liquidity requirements, such as the Liquidity Coverage Ratio and the Net Stable Funding Ratio, are sound efforts to address such run risk, both at banks and certain nonbanks. In addition, the Federal Reserve has discussed other measures that it is considering regarding firms' reliance on short-term wholesale funding.¹⁶

While important, these measures may not prove adequate for preventing runs at nonbank institutions that need to fund large amounts of assets with large amounts of short-term liabilities. In this context, the oldest and most successful tool to address run risk, the central bank's ability to provide liquidity against collateral, should be carefully extended, but only where such risk is significant with respect to the liquidity of the financial system as a whole, and only if these institutions are subject to appropriate prudential regulation and supervision.

The institutions that most clearly satisfy such criteria are the largest broker-dealers, all of which are currently owned by bank SIFIs. These institutions rely on substantial quantities of short-term wholesale liabilities to fund their core trading businesses. During the financial crisis, the vulnerability to runs at firms like Bear Stearns, Lehman Brothers, and Merrill Lynch was a core accelerator of systemic risk. While such risk was especially pronounced for those large broker-dealers that were not affiliated with large depository institutions, even those broker-dealers that had such affiliations with banks remained vulnerable to run risk. It is true that, as a result of the mergers and restructurings of the financial crisis, all the major U.S. broker-dealers are affiliated with large banks, and each such affiliated bank has direct access to Federal Reserve discount-window loans. There are, however, significant restrictions on the ability of those banks to transfer funds to their affiliated broker-dealers. As a result, the broker-dealer subsidiaries in these organizations remain much more susceptible to run risk in the event of financial stress than their affiliated banks—even though the organizations have been deemed to be SIFIs and are therefore already subject to extensive consolidated supervision by the Federal Reserve.

In this context, the task force believes that the type of access to collateralized liquidity extended to a depository institution owned by a SIFI ought to be extended to a broker-

dealer owned by the same SIFI. Because of the scale of their trading businesses and the nature of their funding, these broker-dealers are the institutions that, in times of financial stress, would be most susceptible to the types of runs that could have systemic consequences if not checked with tools similar to discount-window loans—even taking into account the liquidity reforms of Dodd-Frank and Basel III.

In addition, having access to such liquidity would make it easier to resolve such an entity and its parent organization in an orderly manner under the traditional insolvency regimes of the U.S. Bankruptcy Code and the Securities Investor Protection Act, without resorting to the provisions created in Dodd-Frank's Title II, including those provisions that provide a failing firm with access to emergency liquidity from the government, which could be used by a broker-dealer subsidiary. This is important because Congress made clear in the Act its strong preference for failing firms to use such traditional insolvency regimes, rather than Title II, wherever possible—which has been recognized by BPC's Failure Resolution Task Force as well. It is also important because making it easier for such firms to fail in an orderly manner strengthens the expectation of market participants that they will be allowed to do so, thereby mitigating the negative externalities associated with the "too-big-to-fail" problem.

Moreover, because the organizations that currently own the very largest broker-dealers have all been made subject by Dodd-Frank to enhanced prudential standards, they are already subject to the system's most intensive form of consolidated regulation and supervision by the Federal Reserve. As a result, extending the safety net from the banking part of the SIFI to the broker-dealer part of the SIFI should not present the same regulatory challenges as would be the case with extending the discount window to an entirely unregulated institution.

That said, extending such liquidity access should only be done if these institutions are subject to appropriate regulation and supervision. In this context, the Federal Reserve's existing consolidated supervision provides extensive oversight of the broker-dealer, as does the SEC's existing broker-dealer regulatory and supervisory regime. As the entity extending the loans to the broker-dealer, the Federal Reserve would need to be satisfied that the broker-dealer is subject to the level of scrutiny the agency requires of any institution that receives such loans. Accordingly, the task force recommends that the Federal Reserve, in consultation with the SEC, be required to develop the terms and conditions, including supervisory conditions, that the broker-dealer would need to satisfy in order to be eligible for the collateralized liquidity envisioned here.

However, there may be circumstances where a broker-dealer that is not owned by a SIFI engages in such substantial trading activities funded by short-term liabilities that it, too, would present the type of run risk that would warrant access to collateralized liquidity from the Federal Reserve, for all the reasons described above. If the owner of such a firm were designated as a nonbank SIFI, its broker-dealer subsidiary would qualify for access to liquidity from the Federal Reserve under the recommendation proposed above. But if the broker-dealer's organization were not a SIFI, and if the broker-dealer itself nevertheless

presented significant levels of vulnerability to run risk, the Federal Reserve should have the authority to provide liquidity support comparable to the discount window to such a firm. Again, if the Federal Reserve were to extend this access, the broker-dealer should be subject to the terms and conditions for that access, including supervisory conditions, that the Federal Reserve should be required to develop in consultation with the SEC.

Recommendation 4: Congress should authorize the FSOC to issue regulations on its own initiative under statutory authority already granted by Congress to one or more of the FSOC's member agencies when:

- (a) One or more member agencies of the FSOC have been required to issue a regulation by a statutory deadline and those agencies have failed to do so within 180 days of that deadline; or
- (b) The FSOC determines that, in extraordinary circumstances, a failure to issue regulations by one or more member agencies to address a financial activity or practice poses a serious and material threat to the financial system.

The FSOC should only be allowed to take such extraordinary action on its own initiative by a supermajority vote of all its members, and only when it makes an express finding, with supporting reasons, that doing so is in the public interest.

The creation of the FSOC is a positive step that holds the potential for better oversight of the financial system. Dodd-Frank established the Council and the OFR to "patrol the boundaries" of financial services, to look over the horizon to anticipate potential future sources of systemic risk, and to ensure that pockets of such risk do not grow outside of the regulated perimeter to levels where they could become threats to financial stability. The specific purposes of the Council include identifying risks to financial stability, promoting market discipline, and responding to emerging threats to stability. ¹⁹ Dodd-Frank also assigned several duties to the FSOC, including identifying regulatory gaps that could pose a risk to financial stability, facilitating coordination and information-sharing among its member agencies, and providing direction to the OFR. ²⁰

The FSOC's single major power is its ability to designate nonbank SIFIs, which is a power with a binary outcome. A danger in having one primary authority is the tendency to look at every problem through the lens of that authority, even if it is not the best solution in a given case.

Dodd-Frank gave the FSOC more limited authorities and duties, separate and apart from its authority to designate nonbank SIFIs, to address activities or practices that may pose risk to financial stability. This more limited authority includes "naming-and-shaming" power, which is the authority to publicly recommend that a member agency take a particular action and, if the agency does not take the recommended action, require the agency to publicly report to Congress its reasons for failing to do so.²¹ Dodd-Frank did not, however, empower the FSOC to write rules or regulations, nor does the FSOC have the authority to require its member agencies to take action within their existing regulatory authority to prevent

activities or practices even if a supermajority of the Council agrees that they pose a substantial risk to the financial system. In addition, while Dodd-Frank charged the FSOC with facilitating coordination among its member agencies,²² the Council lacks the power to force its member agencies to come to agreement on joint rules or regulations with respect to such activities.

The enhancements proposed in Recommendation 4 to the FSOC's authorities would likely be used only in rare cases owing to a supermajority requirement for each.

The ability to effectively analyze regulatory and supervisory matters is only as good as the data that undergirds that analysis. In support of its purpose and duty to collect and provide data to the FSOC members, ²³ the OFR should ensure that sufficient attention is paid to fulfilling its statutory goal of creating data standards that allow the FSOC and its member agencies to conduct forward-looking analysis of financial markets. While the OFR's analysis functions are important, a well-designed data standard that provides more relevant data in a timelier manner than is currently available has the potential to transform financial regulation and should therefore be given priority.

The FSOC is only four years old and is still evolving. Additional transparency by the FSOC would improve its functionality. The FSOC could and should take additional steps to increase its level and quality of communication with firms that are under active consideration for SIFI designation. Specifically, companies under consideration for designation should be allowed to provide information and comment on the accuracy of data used for analysis by the FSOC. To be clear, these suggestions are meant to improve the quality of the process by which designation occurs. The task force understands and respects the inherently non-public nature of the specific company designation process. Designation is similar to prudential regulation in that there is an appropriate level of non-public discourse that can and should go on between regulators and financial institutions. However, a private process can still benefit from additional communication and increased transparency between regulators and the regulated.

<u>Recommendation 5</u>: The Federal Reserve should tailor regulation and supervision of nonbank SIFIs to account for the ways they are different from banks. Congress should also ensure that regulators have appropriate authority to implement such tailoring.

Bringing nonbanking organizations that are systemically significant within the ambit of substantial federal regulation is a key goal of Dodd-Frank. One approach to this is through the FSOC's designation of a nonbank as a SIFI, which means it is subjected to supervision and regulation by the Federal Reserve. Similarly, with the enactment of Gramm-Leach-Bliley, the Federal Reserve has consolidated supervisory authority and responsibility with respect to companies owning both nonbank financial firms as well as insured banks. This responsibility means, of necessity, that the Federal Reserve must develop and maintain the expertise, policies, and resources required to appropriately supervise and regulate nonbank

financial firms that are subject to its supervision, which currently includes financial market utilities, insurance companies, securities firms, and other financial companies.

Designated nonbank SIFIs, as well as bank SIFIs, ought to be subject to rigorous prudential supervision. They should not, however, be regulated in exactly the same way as bank SIFIs. While it is possible for nonbank companies to present the type of systemic risk that warrants designation as nonbank SIFIs, the risks presented by such institutions are likely to be different from the ones presented by predominantly banking organizations. As a result, the consolidated supervision of such institutions ought to be tailored to address those different risks, even if the resulting requirements are different from those that apply to bank SIFIs.

It is helpful that several provisions of Dodd-Frank expressly recognize this distinction and embrace the concept of tailored requirements for nonbank SIFIs. Section 165 of the Act, for example, makes clear that, in developing prudential standards for designated nonbank SIFIs, the Federal Reserve "shall take into account differences among nonbank financial companies supervised by the Board of Governors and bank holding companies, based on ... nonfinancial activities and affiliations of the [nonbank financial company]."²⁴ [Emphasis added.]

In addition, Section 115 of the Act states that in making recommendations for establishing or refining prudential standards for nonbank SIFIs, the FSOC "may differentiate among companies that are subject to heightened standards on an individual basis or by category, taking into consideration their capital structure, riskiness, complexity, financial activities (including the financial activities of their subsidiaries), size, and any other risk-related factors that the Council deems appropriate."²⁵

Unfortunately, Section 171 of the Act—the so-called "Collins Amendment"—has been interpreted by the Federal Reserve as requiring the application of bank-like capital requirements to all entities regulated by the Federal Reserve. In addition, the Federal Reserve, although it has the responsibility for regulating and supervising financial activities generally, has appeared to approach regulation thus far from a banking perspective; thus, concerns have been expressed that it will naturally default to bank-style regulation when overseeing nonbank SIFIs and will be reluctant to adopt appropriate tailoring to reflect real differences in business models and risk.

While the Federal Reserve has taken some encouraging steps in the direction of recognizing differences in nonbank SIFIs, the task force recommends that the agency, when crafting regulations for nonbank SIFIs, not simply default to bank regulation; that is, it should be open to different regulation that better reflects a nonbank SIFI's actual risks. By definition, these companies are different from banking organizations—with different balance sheet structures, revenue streams, and risk profiles—and the Federal Reserve needs to be open to quite different forms of regulation and supervision to reflect those different attributes and risks. In this regard, it is important to understand that *tailored* regulation and supervision does not mean more lenient regulation and supervision. Rather, it means that any

regulation and supervision needs to reflect the particular nature and risks of the business in question.

In this context, the task force recommends that the FSOC take a more active role in assisting the Federal Reserve with respect to recommended tailoring of standards for nonbank SIFIs. Such steps on the part of the FSOC would be helpful, but the task force also recommends that Congress pass legislation clarifying the ability of the Federal Reserve to tailor its regulation for all nonbank SIFIs. Finally, the task force recommends that the Federal Reserve acquire and maintain specific knowledge and expertise in each of the industries over which it has prudential oversight.

The Federal Reserve should also consider how to best tailor the application of capital rules and prudential regulation for the predominantly nonbank activities that exist within some bank SIFIs. As noted above, Dodd-Frank provided this authority in Section 165, which states that:

In prescribing more stringent prudential standards under this section, the Board of Governors may, on its own or pursuant to a recommendation by the Council in accordance with Section 115, differentiate among companies on an individual basis or by category taking into consideration their capital structure, riskiness, complexity, financial activities (including the financial activities of their subsidiaries), size, and any other risk-related factors the Board of Governors deems appropriate.²⁶

The Dodd-Frank Act and other reforms that have been passed and implemented since the crisis are likely to make the financial system safer than it was prior to the crisis. There remain, however, important areas where Dodd-Frank went too far and ended up taking away important crisis-fighting tools that could potentially weaken the nation's ability to deal with a future financial crisis. A weak response can result in a worse crisis, with increased harm to the real economy.

The evolution of modern finance and the experience gained during the implementation of Dodd-Frank suggest the need for additional reforms. The task force believes that the five specific recommendations in this report will help prevent systemic threats, and therefore will put government crisis managers in a better position to combat such threats, leading to a safer and more stable financial system. By focusing on reducing the probability of future financial crises and mitigating the damage from a crisis, the task force's goal is to help increase long-run sustainable economic growth and job creation.

Introduction. Background, and Government Response to the Financial Crisis

Systemic Risk and Factors that Contributed to the **Financial Crisis**

The recent financial crisis made clear that insufficient attention had been paid to sources of systemic risk that can threaten the collapse of the financial system and, with it, the real economy. Moreover, the crisis showed how critical it is for government officials to have and be able to use the tools necessary to prevent and mitigate systemic threats. This paper analyzes several key changes that Congress made to address systemic risk in the wake of the crisis. It then makes five specific recommendations that both Congress and financial regulatory agencies should take to ensure a more effective response to future financial panics and crises. These recommendations address: Federal Reserve emergency lending powers, Federal Deposit Insurance Corporation (FDIC) emergency debt guarantees, brokerdealer access to collateralized lending from the Federal Reserve to ensure necessary liquidity in the financial system, Financial Stability Oversight Council (FSOC) authorities and transparency, and tailored regulation and supervision by the Federal Reserve.

The discussion on how to handle systemic risk has evolved; it was a core component of the reforms taken under the Dodd-Frank Wall Street Reform and Consumer Protection Act of 2010 (Dodd-Frank).²⁷ Yet, in this policy debate no single, agreed-upon definition of "systemic risk" appears to fully capture all of the term's components. The Financial Stability Board has defined systemic risk as: "a risk of disruption to financial services that is (i) caused by an impairment of all or parts of the financial system and (ii) has the potential to have serious negative consequences for the real economy."²⁸ A compilation of definitions of systemic risk can be found in Appendix A and may be useful in thinking about the nature of the problem these policy responses are designed to address.

A brief review of the antecedents of the crisis is helpful in thinking about how systemic risk built up prior to 2007. Poor underwriting, systematic mispricing of risk, fraud, and a fundamental lack of market discipline were among the factors that contributed to broad declines in asset prices, including sharp declines in some prices during the financial panic, and the loss of confidence that ultimately threatened to bring down the entire financial system. These factors, combined with high levels of leverage, gave some financial institutions—both regulated and unregulated—little margin for error. The systemic implications of this accumulation of risk were not adequately recognized or understood by management, investors, regulators, supervisors, policymakers, and stakeholders. The nature and extent of practices that led to that accumulation of risk likewise were not adequately understood.

Part of this failure to identify and understand the buildup of risk stemmed from the fact that there was no government entity, or coordinated group of entities, expressly responsible for overseeing financial stability or identifying potential threats to the broad financial system. This lack of so-called "macro-prudential supervision" made it possible for each financial regulatory agency to take false comfort in thinking that certain problems were someone else's job. For example, the exceptionally poor underwriting of subprime residential mortgages occurred primarily—but not exclusively—outside of banks, either in nonbanking companies or in nonbank affiliates of banking companies that were subject to considerably less scrutiny than banks. This problem was compounded by data that were incomplete and not standardized, leading to situations where different agencies had different, partial, or unclear views of what was happening in real time.

In addition, regulators at times failed to use authority that had been granted to them that may have limited or prevented some kinds of risk from building within the financial system. The Federal Reserve, for example, waited until 2008 to adopt new rules under the Home Ownership and Equity Protection Act of 1994 (HOEPA). As the Financial Crisis Inquiry Commission reported:

[L]ong after the risky, nontraditional mortgage market had disappeared and the Wall Street mortgage securitization machine had ground to a halt, the Federal Reserve finally adopted new rules under HOEPA to curb the abuses about which consumer groups had raised red flags for years—including a requirement that borrowers have the ability to repay loans made to them.

By that time, however, the damage had been done. The total value of mortgage-backed securities issued between 2001 and 2006 reached \$13.4 trillion. There was a mountain of problematic securities, debt, and derivatives resting on real estate assets that were far less secure than they were thought to have been.²⁹

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^{iv} Macro-prudential supervision involves oversight geared toward ensuring the safety and soundness of the overall financial system, while micro-prudential supervision refers to monitoring and ensuring the safety and soundness of individual financial institutions.

Runs on Liabilities in Modern Finance

To understand modern finance and the actions taken by regulators during the crisis, one must understand runs on liabilities and the need for liquidity. Runs evoke the image of customers lining up to withdraw their money from a bank—just like in Jimmy Stewart's It's a Wonderful Life. Bank runs on deposits of this type were not uncommon in the United States until the establishment of the FDIC and deposit insurance in 1934. Since that time, no depositor has lost any insured funds due to a bank failure, and runs on banks have been uncommon until the most recent financial crisis.

Runs, however, do not originate only at banks. During the years leading up to the crisis, money-like liabilities accumulated in nonbank financial institutions, which were not subject to the same supervisory oversight as banks, and for which there were fewer regulatory tools to address run risk. In particular, nonbank broker-dealers like Lehman Brothers, Bear Stearns, and Merrill Lynch, as well as a proliferation of structured investment vehicles (SIVs), vi held large quantities of what later proved to be mispriced and poorly underwritten assets, while relying on short-term funding sources that ran or threatened to run with the onset of the crisis. A series of runs on such short-term funding sources amplified risk and the speed at which the financial system destabilized during the crisis.

V Note, however, that broker-dealers that were subsidiaries of bank holding companies were, in general, subject to the same run risks as independent broker-dealers.

vi Also known as "conduits," SIVs are institutions, often subsidiaries of a larger financial institution, that attempt to make money on the difference between interest rates on short-term debt they typically use to fund themselves and the higher rates paid on the longer-term assets in which they invest and hold as collateral. Prior to the crisis, SIVs often profited in the short run by holding securities backed by mortgages and collateralized debt obligations while funding these holdings with short-term liabilities like asset-backed commercial paper that they issued. When the commercial paper market began to seize up in 2007, however, due to doubts about the value of underlying collateral, SIVs began having trouble rolling over their short-term liabilities. As separate legal entities, SIVs were nominally off of the balance sheets of the institutions of which they were subsidiaries. In reality, though, the larger institutions felt obliged to bail out these subsidiaries, meaning that large losses from which the parent institutions were supposedly insulated were suddenly brought back onto balance sheets. This resulted in markets realizing that these large institutions had more risk on their books than previously thought.

The Repo Markets: Operation and Risks

UNDERSTANDING REPOS

A repurchase agreement (a "repo") is a contract between two parties in which one party sells a security and promises to repurchase it from the counterparty at a specified future date for a specified price. In practice, repos are essentially secured loans, typically with relatively short-term maturity dates. Dealers (borrowers) provide collateral, usually in the form of U.S. government securities³⁰ and, less often, in corporate debt and equity securities. The dealer is also typically required to post collateral in excess of the notional amount of a loan (a haircut), which provides an increased level of security in the event of a counterparty default.³¹ In return, the cash provider (lender) provides funds to the dealer. Upon expiration of the agreement, the dealer returns the cash provided by the lender together with interest (the repo rate) and the cash provider returns the collateral to the dealer. Most agreements expire the following day (overnight repos), but some can mature over several days or even months (term repos).

Repo transactions can be classified as either "bilateral" or "tri-party." A bilateral transaction (sometimes known as a delivery-versus-payment or DVP repo)³² is a contract between two parties—typically between two dealer banks or a dealer bank and a hedge fund. However, the most common form of repo transaction in the U.S. markets is a tri-party repo.³³ In a triparty transaction, a clearing bank provides intermediation services to the dealer and cash investors. Specifically, it takes custody of the securities, ensuring that the collateral is actually available to the cash provider in the event of default. The clearing bank also provides an independent price estimate of the collateral and collects the required margin. Finally, it provides settlement services in both the investment and maturity phases of the agreement. In the United States, two banks perform these clearing services: J.P. Morgan Chase and Bank of New York Mellon, 34



Figure 1. Tri-party Repo Transaction

Source: BlackRock, "Understanding Repurchase Agreements." Available at: https://www.blackrock.com/cash/literature/whitepaper/understanding-repurchase-agreements.pdf.

PARTICIPANTS

Dealers in the tri-party market are typically large banks and securities broker-dealers, though some hedge funds and other institutions with extensive securities portfolios also participate in these markets. The dealer portion of the repo market has historically been highly concentrated; as of 2010, just five firms accounted for 57 percent of all borrowing and the top ten institutions accounted for 88 percent.³⁵ Indeed, the largest dealers have repo books that range from \$100 billion to \$200 billion. Prior to the financial crisis, some of these books reached levels in excess of \$400 billion.³⁶ Dealers use repos for many reasons: as a mechanism to help fund their portfolio of securities and those of their clients, for proprietary purposes, and as a way to satisfy their general liquidity needs.³⁷

Cash providers are primarily money market mutual funds (MMMFs), securities lenders, and other institutional investors, such as mutual funds, insurance companies, and state and local government treasuries. Because of the underlying collateral provided in these transactions, repos have historically been seen as relatively safe investments, providing MMMFs and other institutions with a way to invest surplus funds without losing liquidity or incurring price risk. This is particularly important for MMMFs, which may need cash in order to satisfy redemption requests from their investors. This side of the market is concentrated, but less so than the dealer component; the largest ten investors comprised 60 percent of the market as of 2010.³⁸ MMMFs comprise a guarter to a third of the cash invested in the tri-party market, while securities lenders comprise another quarter of the market.³⁹

MARKET SIZE

As of June 2014, the average monthly value of the tri-party market in the United States was \$1.6 trillion, 40 which represented a significant decline from its peak in April 2008, when it was valued at \$2.8 trillion. 41 Bilateral transactions are not reported, but the Federal Reserve Bank of New York estimated in mid-2012 that they amounted to \$964 billion, which at the time was equivalent to 59 percent of the size of the tri-party market.⁴²



Figure 2. Aggregate Value of Tri-Party Repo Market, 2002-2014⁴³

REPO MARKETS DURING THE CRISIS

During the financial crisis, the bilateral markets were subject to partial runs by investors. Cash providers began charging increasingly large haircuts to protect themselves against the risk of default, while hedge funds and other institutions withdrew the collateral they held in certain dealers' accounts.44 The trilateral markets were subject to both partial runs and fullscale runs similar to those faced by banks.⁴⁵ Some dealers in the tri-party market, most notably Lehman Brothers, also faced these partial runs. In the week prior to the decision by Lehman Brothers to file for bankruptcy, its broker-dealer subsidiary's tri-party repo book declined by over \$50 billion, from \$150 billion to \$95 billion, a consequence of institutions withdrawing their collateral from Lehman and, in later stages, of increasing haircuts demanded by investors. 46 However, in contrast to dealers in the bilateral markets, both Bear Stearns⁴⁷ and Lehman also suffered precipitous runs by repo investors.⁴⁸ As shown below, the number of cash providers lending to Lehman's broker dealer subsidiary declined sharply in the week before its holding company filed for bankruptcy. On the day the holding company declared bankruptcy, Lehman's broker-dealer unit had fewer than 20 tri-party cash investors, many of which were likely engaged in term repo trades rather than overnight trades with the firm.⁴⁹

Figure 3. Number of Cash Investors in Lehman Brothers, September 2008



Source: Adam Copeland, Isaac Davis, Eric LeSueur, and Antoine Martin, "Mapping and Sizing the U.S. Repo Market," June 25, 2012, p. 57. Available at: http://libertystreeteconomics.newyorkfed.org/2012/06/mapping-andsizing-the-us-repo-market.html#.U87X07EjolR. The line represents the date of Lehman Brothers' holding company bankruptcy.

There are a number of reasons that tri-party repo dealers are uniquely subject to these forms of full-scale runs by investors. As both Copeland et al. (2010) and Friedman (2010) discuss, tri-party investors focused on the risks posed by their counterparties rather than at the quality of the collateral posted during this crisis. In part, this was the result of cash investors—in contrast to the inter-dealer trading that occurs in the bilateral markets—being reluctant to take possession and liquidate even extremely safe securities. Not only are such securities subject to liquidity, market, and interest rate risks, but some investors lack expertise in liquidating such assets.⁵⁰ MMMFs are also naturally sensitive to "headline" risks"—that is, their investors would place pressure on them to withdraw from funding arrangements with dealers facing liquidity and credit risks.⁵¹

Added to this, the "unwind" process in a tri-party repo transaction may have exacerbated run behavior. Every morning, the clearing bank unwinds all repo agreements, returning collateral to the dealer, cash to the investor, and temporarily extending credit to the dealer. Term repos are rewound in the evening, often with different collateral; overnight repos do not roll-over, but are instead entered into anew each evening. In the absence of this feature, a dealer that failed to obtain funding in the evening would default on its repo with the investor and the investor would be unable to recover the cash it invested. However, because of the unwind, investors have no exposure to this roll-over risk, meaning that there are no negative consequences for them for withdrawing funding from a dealer, which they are likely to do if they believe the dealer is at risk of defaulting.

The greatest threats to financial stability spring from potential runs on money-like liabilities that can lead to a contagious panic. The Bipartisan Policy Center's (BPC) "Too Big to Fail: The Path to a Solution" concluded that:

A panic can start by a loss of confidence in the solvency or liquidity of a single bank or other financial institutions, resulting in its depositors, or other short-term creditors, counterparties on financial contracts and other holders of *operating liabilities* making a cascade of mass withdrawals of cash from that institution. These mass withdrawals of cash—also known as *liquidity runs* or just *runs*—will force the financial institution to liquidate its temporarily illiquid but valuable assets at *fire-sale prices*. ... If these liquidity runs and fire sales continue to spread throughout the financial system, they will destabilize the system and can eventually cause its collapse. ⁵² [Emphasis in original.]

The necessary conditions for bank runs are productive, illiquid assets funded with liquid claims, free convertibility of claims at par, and a situation where claims are redeemed in the order they are received. Runs are triggered by solvency concerns—about a particular institution or the financial system in general—and a fear that other claimants will run.⁵³

One prominent reason that financial institutions are vulnerable to runs is maturity transformation. This process allows savers to earn a return on their deposits, which can still be withdrawn on demand, while allowing borrowers to gain access to longer-term financing. Maturity transformation, however, also can be problematic for an institution if many or all of its savers decide to withdraw their deposits simultaneously during a financial panic.

Even if the institution is indisputably solvent, and every depositor or similar creditor knows it, each of them has an incentive to run if others start running to protect against the risk that the others will force the institution to sell its illiquid assets at fire-sale prices, causing it to become insolvent. If that happens, any individual who did not run will suffer losses that could have been avoided had he or she run in the first place when everyone else did.⁵⁴

These dynamics took on greater relevance through the course of 2007, when it became more apparent that a substantial share of assets that underlie the growth and stability of the financial system were of much poorer quality than most previously thought. In turn, an increasing number of stakeholders became reluctant to fund financial institutions that held, or were thought to hold, a significant share of these assets. By the summer of 2007, broker dealers began to have trouble funding their ordinary course activities. This was illustrated when the asset-backed commercial paper market, an important source of short-term funding, contracted by 20 percent in August 2007, due in part to a rush by lenders to withdraw funds from commercial paper providers perceived as potentially unstable.⁵⁵

By early 2008, Bear Stearns, which at the time was the smallest of the "big five" broker-dealers that were not affiliated with large banks, was the first of the five to experience major liquidity problems. The firm was increasingly relying on funding from repo markets, which had been considered quite safe since the loans that provided funding were for less

than the value of the collateral posted for them. This appearance of safety enjoyed by repos, however, did not account for a sudden, significant drop in asset prices that made up this collateral, which were often asset-backed securities. When markets started doubting the underlying prices of these securities, funding dried up rapidly and, in March 2008, regulators forced the takeover of Bear Stearns by J.P. Morgan Chase. To facilitate the transaction, the Federal Reserve used emergency authority under Section 13(3) of the Federal Reserve Act to establish an investment vehicle to handle \$30 billion of questionable assets. In addition, the Federal Reserve established the Term Securities Lending Facility to make up to \$200 billion in Treasury securities widely available for other nonbank financial institutions that were "primary dealers" for the Federal Reserve for collateral that included mortgage-backed securities. This was the largest use of Section 13(3) emergency authorities since the Great Depression.

Liquidity problems and worries about a collapse in asset prices deepened into 2008 as the full extent of the poor quality of many assets became more apparent. By the end of September, Fannie Mae and Freddie Mac had been forced into conservatorship, Lehman Brothers had collapsed, and AIG had only been prevented from suffering the same fate via a bailout by the government, which initially relied on the use of emergency authority by the Federal Reserve. These events contributed to severe stress in financial markets, which stakeholders and regulators feared would spread to the remaining three of the big five broker dealers: Merrill Lynch, Morgan Stanley, and Goldman Sachs. The problems, however, were not limited to broker-dealers and nonbanks. The interconnectedness of the financial system meant that a number of commercial banks were vulnerable as well, even though the problems for them were mitigated by the more stable nature of their core deposit funding and by their access to the discount window and deposit insurance to stave off runs. Reliance on short-term wholesale funding increased run pressures at a variety of financial institutions. As Federal Reserve Bank of New York President William Dudley points out:

Short-term funding of longer-term assets is inherently unstable particularly in the presence of information and coordination problems. It can be rational for a provider of funds to supply funds on a short-term basis, reasoning that it can exit if there is any uncertainty over the firm's continued ability to roll over its funding from other sources. But if the use of short-term funding becomes sufficiently widespread, the firm's rollover risk increases. In this situation, there is a strong incentive for each lender to "run" if there is any uncertainty that could undermine the borrower's ability to continue to roll over its funding from other sources.⁵⁷

Another crisis-era example of a run on a non-depository institution occurred on MMMFs. After the failure of Lehman Brothers in September 2008, the Reserve Primary Fund had to write down \$700 million of commercial paper that had been issued by Lehman, causing the fund to "break the buck," meaning the fund's shares traded at less than their \$1 face value. This led to a stampede of investors attempting to withdraw their money from the fund. In a single day following the collapse of Lehman Brothers, investors tried to withdraw about \$25 billion of the fund's total holdings of just more than \$60 billion.⁵⁸

Government Responses during the Financial Crisis

The appearance of massive instability in nonbanks was a problem for the Federal Reserve and the FDIC. With a crisis rapidly developing, they and other government authorities found their traditional tools to address run and liquidity problems to be inadequate and not designed to address problems occurring outside traditional banks. Faced with a potential economic catastrophe, the Federal Reserve and the FDIC were forced to use their existing authority in creative ways in an effort to stabilize markets and avoid panic. Their approaches included guaranteeing the debt of certain financial institutions, providing liquidity to otherwise solvent nonbank institutions to avoid failures, and engineering the mergers of weaker financial institutions into stronger ones, sometimes with government financial assistance.

Injecting liquidity into a market or one or more institutions can be an important financial stabilizer. Financial institutions that are otherwise solvent sometimes experience a temporary shortage of liquid assets to meet their obligations. If they are forced to sell some of their illiquid assets to meet their obligations, they are likely to have to do so at a discount. Such "fire sale" responses can turn into self-reinforcing spirals, where such sales lead to a weakened balance sheet and a loss of confidence in an institution, which begets more discounted sales. The Federal Reserve's discount window was set up to offer short-term liquidity to solvent banks to avoid such value-destroying dynamics.

Regulators also, however, devised more creative ways to use existing authority during the crisis. The Federal Reserve, for example, was able to inject necessary liquidity into the financial system by setting up programmatic, special facilities for the asset-backed commercial paper market, broker-dealers, and others. In this way, the Federal Reserve both acted as a provider of liquidity for normal economic conditions and as the "lender of last resort" for solvent financial institutions unable to secure necessary credit in times of crisis. Figure 4 provides details on several of the Federal Reserve's crisis-era facilities.

Figure 4. Federal Reserve Crisis-Era Lending Facilities

PROGRAM	INITIAL ANNOUNCEMENT DATE	ELIGIBLE BORROWERS	TERM OF LOAN
Term Discount Window Program	August 17, 2007	Primary credit-eligible depository institutions	Initially 30 days, later extended to 90 days
Term Auction Facility	December 12, 2007	Primary credit-eligible depository institutions	28 days or 84 days
Reciprocal Currency Arrangements	December 12, 2007	14 central banks	Overnight to 3 months
Single-Tranche Open Market Operations Program	March 7, 2008	Primary dealers	28 days
Term Security Lending Facility	March 11, 2008	Primary dealers	28 days
Primary Dealer Credit Facility	March 16, 2008	Primary dealers	Overnight
Asset-Backed Commercial Paper (ABCP) Money Market Fund Liquidity Facility	September 19, 2008	Depository institutions, bank holding companies, U.S. branches and agencies of foreign banks	ABCP maturity date up to 270-day maximum
Transitional Credit Extensions	September 21, 2008	Broker-dealers transitioning to a bank holding company structure	Overnight
Commercial Paper Funding Facility	October 7, 2008	Eligible commercial paper issuers	3 months
Money Market Investing Funding Facility	October 21, 2008	Eligible Money Market Mutual Funds and other money market investors	N/A
Term Asset-Backed Securities Loan Facility	November 25, 2008	All U.S. persons that owe eligible collateral	3 or 5 years

It is useful to briefly review a few key historical points that illustrate the growth of the Federal Reserve's provision of liquidity to the financial system. In 1913, Congress created the Federal Reserve System in the wake of the Panic of 1907 to stabilize the financial system by combating runs and financial panics. It was given the authority to act as lender of last resort just for commercial banks and could also only lend directly to the minority of banks that were members of the Federal Reserve System. That meant that on the eve of the 1929 stock market crash, the Federal Reserve was not allowed to directly lend to 65 percent of commercial banks holding about 25 percent of total U.S. bank deposits. ⁵⁹ In response to the Great Depression, Congress opened up the discount window to a wider variety of depository institutions; eased restrictions on acceptable forms of collateral; and gave the Federal Reserve the power to extend collateralized credit to individuals,

partnerships, and corporations during emergencies.⁶⁰ At this time, Congress also enacted the Federal Deposit Insurance Act aimed specifically at forestalling bank runs.

Later, in 1970, the Federal Reserve responded to the bankruptcy of the Penn Central Company by stabilizing the commercial paper market to avoid a liquidity crisis. This marked an important shift for the Federal Reserve because the central bank acted for the first time to stabilize the financial system from a threat that came from outside the banking system.⁶¹ In 1984, the Federal Reserve announced that it would meet any extraordinary liquidity needs of a single firm, Continental Illinois, which had already borrowed \$3.6 billion through the discount window. Concurrently, the FDIC guaranteed Continental Illinois' deposits and general creditors and provided assistance in several other ways, including by purchasing \$4.5 billion in bad loans from the bank.^{62, 63} Following the 1987 stock market crash, the Federal Reserve "worked with banks and securities firms to ensure that credit was extended to support the liquidity and funding needs of brokers and dealers."⁶⁴ In short, while the Federal Reserve's actions during the crisis were unprecedented in scale, many of those actions had one or more substantive precedents. As the scope of finance has grown, so too has the scope of Federal Reserve emergency lending.

Allowing central bank liquidity access to broker-dealers has international precedent as well. Japanese securities companies have access to the central bank's liquidity facility, while in Switzerland, securities dealers are allowed to be counterparties to the liquidity-shortage financing facility. ⁶⁵ Bank of England Governor Mark Carney said in October 2013 that the Bank was considering extending its liquidity facilities to nonbanks like broker-dealers. ⁶⁶

During the financial crisis, stabilization efforts went beyond injections of short-term, discount-window liquidity. In October 2008, governments around the world coordinated their efforts to stem the unfolding financial panic by announcing broad guarantees of debt issued by their banking organizations. The U.S. government joined this effort through the FDIC's creative use of its bank resolution authority, in particular by using the "systemic risk exception" to the "least cost resolution" requirement. Hallow While that exceptional authority had been thought to relate to the resolution of an individual failing depository institution, it was used during the financial crisis to guarantee newly issued, longer-term debt by large bank and savings and loan holding companies, quite apart from the impending failure of an individual bank. By nearly all accounts, this Temporary Guarantee Liquidity Program (TLGP) played a material role in quelling the financial panic and restoring confidence in the banking system, and it did so in a prudent manner in which the FDIC earned a net gain of \$9.3 billion for the government.

Dodd-Frank curtailed the ability of the FDIC to use the systemic risk exception in such a broad manner; instead, going forward it may only be used in circumstances where an insured depository institution has failed, and only "for the purpose of winding up the insured depository institution." As a result, the authority arguably can no longer be used, as it was in the crisis, to provide "open bank assistance" or, ⁷¹ more generally, to take financial stability actions that are only loosely related to a specific depository institution, such as

guaranteeing basis.	debt issue	d by	depository	institution	holding	companies	on a progra	mmatic

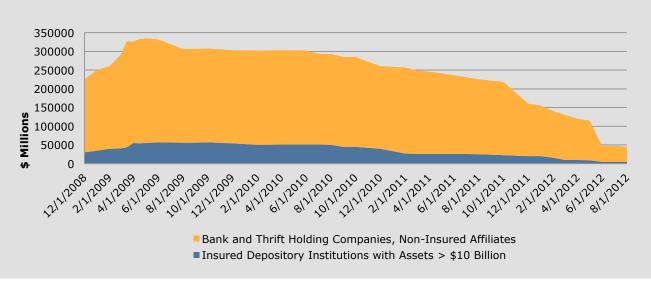
A Crisis Success Story: The Temporary Liquidity Guarantee Program

On October 14, 2008, the FDIC announced the creation of the TLGP in an effort to "encourage liquidity in the banking system." The TLGP had two components. The first was the Transaction Account Guarantee (TAG) program, which provided guarantees to all noninterest-bearing domestic transaction accounts and certain other accounts. 72 After two extensions, the TAG program formally expired on December 31, 2010.73

The second part of the TLGP, the Debt Guarantee Program (DGP), is the focus here. Under the DGP portion of TLGP, the FDIC provided a quarantee for new senior unsecured bank debt that was issued between October 14, 2008 and June 30, 2009. This program, the FDIC capped the amount of guarantees they would provide to an institution based upon its debt outstanding as of September 2008. Institutions that participated in the DGP were charged an assessment premium of approximately 75 basis points, with rates fluctuating between 50 and 100 basis points depending on the maturity date of the loan.⁷⁵

At its peak on May 1, 2009, the DGP portion of TLGP guaranteed nearly 5,000 debt issues totaling more than \$400 billion (See Figure 3 below). The largest guarantees went to major bank holding companies, with almost \$250 billion going to bank holding companies and nearly \$100 billion going to thrift holding companies. By the end of August 2010, the number of debt issues that were still guaranteed under TLGP dropped to 342, with a total value of just under \$300 billion, of which just over \$175 billion had been issued by bank holding companies and \$70 billion had been issued by thrift holding companies. The majority of the debt guaranteed under the DGP matured by March 2012, and by September 2012, the number of issues stood at just five, with a total combined value of \$3.6 billion. The quarantees provided under TLGP formally ended at the end of 2012.⁷⁶

Figure 5. Dollar Amount of Debt Issuance under TLGP, December **2008–August 2012**⁷⁷



The TLGP was not the only form of government assistance available to financial institutions at the time. Taxpayer equity capital was made available to institutions via the Troubled Asset Relief Program (TARP), while short-term financing was available via the Term Auction Facility, Federal Home Loan Bank advances, and the Federal Reserve's discount window. The TLGP was distinctive from these programs in two ways. First, in contrast to the other programs, the TLGP did not involve the government providing either liquidity or capital directly to participants. Instead, thanks to a government-backed quarantee, banks were able to raise private money at a time when the longer-term fixed income markets were largely frozen. Second, the fact that participants were charged an assessment premium significantly reduced the risk that taxpayers would ultimately suffer losses in the case of default.

The TLGP was highly successful by many metrics. A recent study by Ambrose, Cheng, and Dolly King found that the TLGP reduced yields on bank-issued debt, allowing banks to issue bonds with an interest rate that was 15 basis points lower on average than AAA debt issued without the FDIC guarantee. 78 The same study found that the program promoted liquidity in the fixed income markets more generally, with yields on AAA financial firm debts in general declining by an average of 72 basis points for debt issuances in the five months following the announcement of the program. 79 Banks were able to borrow money more cheaply, which in turn made it easier for them to lend to businesses and consumers. Finally, the program was a success for taxpayers. The FDIC collected more than \$10 billion in fees from the DGP portion of the TLGP and paid out only \$153 million in losses. In total, the entire TLGP (including TAG) resulted in a \$9.3 billion gain for the federal government's Deposit Insurance Fund. 80

The performance of the TLGP illustrates the benefits of the FDIC's ability to guarantee debt in a crisis. It is important that the financial system can count on the government's ability to implement a program involving such guarantees in an expeditious manner to help stabilize firms by relieving the need to borrow only on a short-term basis, while at the same time facilitating the flow of credit to the real economy.

The U.S. government responded in a number of other ways to the unfolding crisis. To address the run on MMMFs, the U.S. Treasury used its Exchange Stabilization Fund to guarantee MMMF liabilities. The guarantee helped to stop the run and stabilize the financial system.

Congress added tools available to address the crisis by passing the Economic Emergency Stabilization Act (EESA), better known by the program created in Section 101 of the Act: TARP.⁸¹ TARP allowed the Treasury to use up to \$700 billion to invest in stabilization efforts.⁸² Although originally intended by the Treasury to largely fund the purchase of toxic securities,⁸³ the vast majority of TARP funds were instead used to purchase preferred stock of major financial institutions to provide them with adequate capital to see them through the worst of the crisis. TARP funds used for capital injections have proved to be profitable for taxpayers, with a profit of almost \$30 billion to the Treasury.⁸⁴ As part of EESA, Congress temporarily increased the basic limit on federal deposit insurance from \$100,000 per depositor to \$250,000 per depositor.⁸⁵ This increase was later made permanent in Dodd-Frank.⁸⁶

Government and Public Responses after the Crisis

POST-CRISIS PUBLIC RESPONSE

Many of the actions taken by the government to contain the negative effects of the financial crisis have been unpopular with the American public. One poll found that respondents disapproved by a 59 to 35 percent margin of the government providing money in 2008 to banks and financial institutions that were in financial trouble.⁸⁷ The emergency actions taken by Congress, the Treasury, the Federal Reserve, and the FDIC during the financial crisis are some of the least popular success stories in modern history.

There are many reasons for the unpopularity of the government's actions during the crisis. Significant majorities, for example, believe that government policies have mainly helped financial institutions, large corporations, and the wealthy. Many believe that not enough people responsible for the crisis were held fully accountable for their actions. Perceptions about the efficacy of the emergency actions are also relevant, as almost two-thirds of Americans think the economy is no more secure than it was in 2008. Many see the liquidity and capital injected into the financial system as bailouts rather than mostly a series of loans and investments that, on balance, has yielded taxpayers a significant profit. In a 2010 poll, only one in six respondents knew that more than half of the funds from TARP, which played an important role in stabilizing markets, had been repaid at that date.

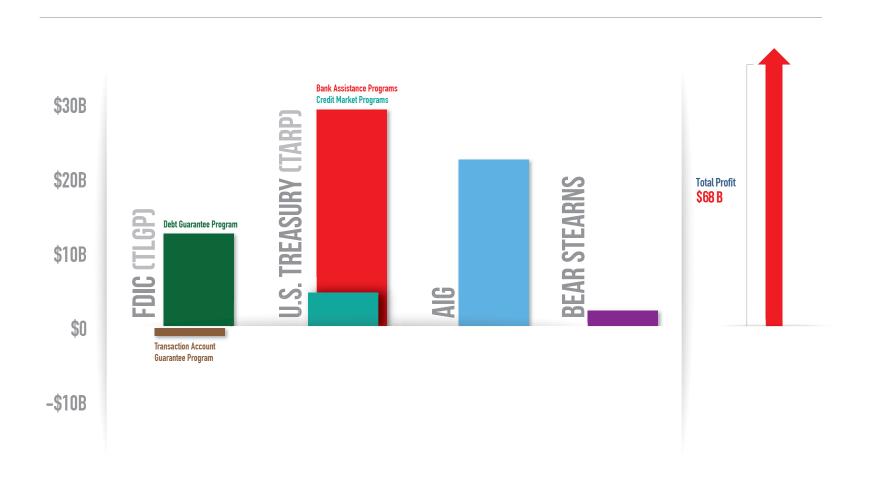
It is essential to distinguish between injecting liquidity into an otherwise solvent firm to see it through a crisis and injecting capital into an insolvent firm to save it, which constitutes a bailout. BPC's report, "Too Big to Fail: A Path to a Solution," makes the distinction:

Lender-of-last-resort facilities thus provide firms with an emergency source of fully secured liquidity, allowing them to borrow cash secured by valuable assets that have become temporarily illiquid, rather than forcing such assets to be sold at fire-sale

prices. They do not provide capital to failed firms that protect shareholders or creditors against losses. Nor do they result in governments assuming risks for which they are not compensated.92

Public outrage at those who destabilized the financial system and damaged the economy is understandable and was reflected in some provisions of Dodd-Frank. However, a sober look at the results of the government's actions show that, while they were not perfect, on balance the emergency actions taken by the Federal Reserve, the FDIC, and the Treasury Department prevented a financial collapse that could have led to a much deeper recession or depression. These actions provided a major boost to the economy at a fraction of cost perceived by the broad public and in many instances actually turned a profit for taxpayers.

U.S. GOVERNMENT PROFITED \$68 BILLION FROM EMERGENCY **ASSISTANCE TO FINANCIAL INSTITUTIONS**



POST-CRISIS LEGISLATIVE RESPONSE

The Dodd-Frank Act was Congress's primary response to the crisis. It addressed the addressed the regulatory gaps that had allowed the buildup of systemic risk in a number of constructive ways:

- Enhanced prudential standards, such as higher levels of capital and liquidity, were mandated for systemically important financial institutions (SIFIs)—whether "bank SIFIs" or "nonbank SIFIs"⁹³—in order to make these institutions safer and better able to withstand shocks and losses without failing;
- Enhanced resolution authority was given to the FDIC which, along with mandated resolution planning, will make it far more possible for the federal government to allow the largest financial firms to fail in an orderly manner without damaging the broader financial sector;
- A new council of regulators, the FSOC, was created specifically to coordinate financial regulation and supervision and to monitor systemic risk, aided by another new body, the Office of Financial Research (OFR);
- The FSOC was provided with the authority to designate any U.S. nonbank financial company as a nonbank SIFI if the FSOC determines by a two-thirds vote of its members that the company "could pose a threat to the financial stability of the United States." Designation authority allows the FSOC to bring systemically important nonbanks "within the perimeter" of increased federal oversight that in the past has applied primarily to traditional banking organizations;
- The Consumer Financial Protection Bureau (CFPB) was created to establish a single set of rules for consumer financial products and to enhance consumer financial protection; and
- Derivatives activities were made subject to more centralized clearing and greater transparency.

These and other provisions of Dodd-Frank have helped make the U.S. financial system safer and more stable than before the crisis. ⁹⁵

Certain provisions of Dodd-Frank, however, are cause for concern, because they unnecessarily restrict the ability of the Federal Reserve and the FDIC to provide short-term liquidity to the financial system. Most notably, Dodd-Frank removed the ability of the Federal Reserve to provide emergency discount-window lending to an individual person, partnership, or corporation (other than an individual depository institution). Instead, such lending to a non-depository institution may only be provided to participants in programs or facilities that have "broad-based eligibility"; in other words, it is no longer permitted to provide an emergency loan to a nonbanking institution on a "one-off" basis. ⁹⁶ The Act preserves the ability of the Federal Reserve to make emergency loans on a programmatic basis to groups of nonbanking companies.

Dodd-Frank also generally imposes significant restrictions on the ability of the FDIC to guarantee debt issued by healthy financial companies in circumstances similar to those experienced during the crisis. The most substantial of these is the unwieldy requirement to secure a joint resolution of approval from Congress before a specific guarantee program can be permitted; it is likely that in the heat of a crisis such approval would not be obtainable, or would not be obtainable in a timely manner to help stop or limit a financial panic from affecting the real economy.

While politically unpopular in the near (and possibly longer) term, the effectiveness of these tools in mitigating the real-economy impact of a financial panic or crisis was illustrated during the financial crisis.

In addition, Dodd-Frank did not adequately address the provision of temporary liquidity to certain nonbanks that, in a modern financial system, hold substantial quantities of runnable liabilities that are not bank deposits. The Act did attempt to address the issue of macro-prudential oversight in part by creating the FSOC, but it did not give the FSOC sufficient authority to carry out the duties assigned to it. Finally, although Congress wisely realized the importance of tailoring the regulation and supervision of the nonbank SIFIs by the Federal Reserve, there are restrictions on and concerns about the Federal Reserve's ability to achieve these goals. This paper addresses each of these concerns.

The Financial Stability Oversight Council and Office of Financial Research

Made up of ten voting and five non-voting members, the FSOC's purposes are to identify risks to financial stability, promote market stability by ending the perception that financial institutions will be bailed out again in the future, and respond to emerging threats to U.S. financial stability. ⁹⁷ Dodd-Frank established the OFR as an office within the Treasury Department, but gave it significant autonomy to accomplish its purpose of supporting the Council by collecting and standardizing financial data, performing research, and developing tools for risk measurement and monitoring. ⁹⁸ Both entities have responsibility for seeing around corners to identify and prevent systemic threats.

To achieve their goals, Dodd-Frank gave each entity authority. Foremost for the FSOC is the power, by a supermajority vote, to designate nonbanks as SIFIs subject to heightened prudential standards and regulation by the Federal Reserve. 99 As mentioned above, this power has already been used in several cases and is being considered for others. While the SIFI designation process has its detractors, it does allow regulators to expand the perimeter of regulation to capture institutions that the Council determines pose significant systemic risk.

The FSOC has additional authority to resolve disputes among member agencies if one of the agencies requests it. 100 Recommendations by the Council to resolve such disputes are, however, nonbinding. 101 The FSOC also has the authority to publicly recommend more stringent regulation of a financial activity or practice that "could create or increase the risk of significant liquidity, credit, or other problems spreading among bank holding companies and nonbank financial companies, financial markets of the United States, or low-income,

minority, or underserved communities."¹⁰² Again, however, while such a public recommendation by the FSOC can have a "name and shame" effect in prompting a member agency to act, the recommendation is not binding on the agency.¹⁰³

The OFR was given the authority to issue rules, regulations, and orders in order to carry out its duties of collecting data on behalf of the Council; standardize the types and formats of data reported and collected; and assist FSOC member agencies in determining the types of formats of data they may collect. ¹⁰⁴ The OFR may also require any financial company to submit reports to help it gauge whether a company, activity, or practice constitutes a threat to financial stability. ¹⁰⁵ In addition, it was directed by the Act to augment data available to the financial industry and the general public in order to "increase market transparency and facilitate research on the financial system."

Dodd-Frank and Tailoring for Nonbanks

The financial crisis illuminated serious gaps in the U.S. financial regulatory structure. These gaps contributed to the failure to prevent, among other things, the proliferations of toxic mortgage products and practices, lack of adequate oversight of a rapidly growing over-the-counter derivatives market, and regulatory arbitrage that led to sub-optimal oversight for some financial institutions. Dodd-Frank sought to plug these gaps in a variety of ways, including giving the FSOC, the Federal Reserve, and the OFR specific macro-prudential responsibilities; creating the CFPB to ensure a focus on consumer financial protection; and eliminating the Office of Thrift Supervision (OTS) to reduce regulatory arbitrage. ¹⁰⁷

Dodd-Frank also recognized that threats to the financial system can come from nonbanks that are outside the perimeter of effective holding company oversight. Although a number of banks had large mortgage origination practices, independent originators disproportionately fed the subprime mortgage bubble¹⁰⁸ and were outside of the jurisdiction of federal prudential regulation. Another prominent example was AIG, which created large amounts of systemic risk when its Financial Products subsidiary consistently underpriced its risk in selling credit default swaps to insure against the default of mortgage- and asset-backed securities. Steep drops in the prices of these assets necessitated a bailout of AIG to stave off a much larger threat to the financial system. Although AIG was a thrift holding company subject to supervision by the OTS, the OTS acknowledged its failures in its oversight of AIG and AIG Financial Products in particular.¹⁰⁹

One way the Act tried to address this problem was by giving the FSOC the power to designate a nonbank financial company as a SIFI, therefore bringing it under the jurisdiction of the Federal Reserve. Under the Gramm-Leach-Bliley Act, the Federal Reserve became the consolidated supervisor of banking organizations that were authorized for the first time to engage in the full scope of nonbank financial activities, including full service securities, insurance, and private equity activities. This provided the agency with the opportunity to view such complex entities as broad financial companies, rather than more narrowly as simply banking organizations. Dodd-Frank continued this trend by strengthening the Federal Reserve's consolidated oversight of both complex banking organizations as well as nonbank SIFIs. In this sense, the agency has a responsibility to monitor and moderate excessive risk

generated by the nonbank affiliates of these financial holding companies through examination and supervision of their activities.

Dodd-Frank intended for nonbank SIFIs to be subject to consolidated federal supervision just as banking organizations are, but in several places the Act also indicated that these firms should not be regulated in exactly the same way as banking organizations. While it is possible for a financial company organized in any number of ways to present the type of systemic risk that warrants designation as a SIFI, the risks presented by such institutions can be different from the ones presented by banking organizations. As a result, Dodd-Frank required the consolidated supervision of such institutions to be tailored to address those different risks, even if the resulting requirements are different from those that apply to banking organizations.

Several provisions of Dodd-Frank expressly recognize this distinction and embrace the concept of tailored requirements for nonbanks, including broker-dealers, insurance companies, and other institutions that are supervised and regulated by the Federal Reserve. These provisions advance the direction Congress took in passing the Gramm-Leach-Bliley Act, which made the Federal Reserve the consolidated supervisor for banking organizations engaging in a broader array of financial activities.

A different section of Dodd-Frank—the so-called "Collins Amendment"¹¹⁰—has, however, been interpreted by the Federal Reserve as requiring the application of bank-like capital requirements to all nonbank SIFIs. The resulting confusion has prompted several bills to be introduced in Congress to clarify the apparent discrepancy.

Recommendations

The preceding section presented a timeline of some important contributors to the financial crisis, the response of government crisis managers during the crisis, and the response of the public and of Congress, largely embodied in the Dodd-Frank Act. Based on that background and analysis, this paper offers a series of recommendations designed to give federal financial regulatory and supervisory agencies the tools they need to better monitor systemic risk and to try to avoid or mitigate systemic threats that could manifest as runs, panics, or crises.

The task force's first three recommendations are intended to provide regulators with additional tools to mitigate and combat runs, panics, and crises in a modern financial system. Specifically, Congress should restore important authorities that existed prior to the financial crisis. It should allow the Federal Reserve to make emergency loans to individual institutions and the FDIC to once again guarantee the debt of healthy financial companies without congressional approval. Reversing these Dodd-Frank Act provisions will return to these two agencies the power and flexibility that they effectively used to prevent a far deeper economic downturn during the financial crisis. In order to help prevent an emergency situation from developing in the first place, Congress should also authorize access to Federal Reserve liquidity for broker-dealers that create substantial run risk, so long as such institutions are subject to appropriate regulation and supervision.

In addition, it is important that the FSOC, the Federal Reserve, and the OFR—agencies with a macro-prudential role assigned in Dodd-Frank—be able to effectively monitor the perimeter of finance to see that it encompasses significant sources of run threats, whether from nonbanks or banks, and also to look over the horizon to try to identify potential nontraditional sources of systemic risk that may develop. The task force offers a group of recommendations to help ensure that regulation is better matched to address systemic threats in the financial system as a whole.

Finally, along with having the right tools comes the responsibility to use them properly. The task force's fourth recommendation highlights the principle that regulation and supervision should be tailored to reflect the differences in characteristics such as balance sheets, risk profiles, and business models between banks and other types of financial institutions. Regulating on the basis of activities and risk rather than using a "one-size-fits-all" banking model is more likely to reduce the potential for the build-up of systemic risk.

The improvements to financial stability that would result from implementing these recommendations would benefit stakeholders in both the financial system and the broader economy.

Recommendation 1: Restore Emergency Lending Authority to Individual Non-Depository Institutions

Congress should restore the ability of the Federal Reserve to make emergency loans to individual non-depository institutions.

The financial crisis underscored the need to act to identify and mitigate significant threats to the financial system as a whole. Although Dodd-Frank increased the authority of the Federal Reserve and the FDIC in several ways, it also curtailed some of the powers these agencies effectively used during the crisis to provide much-needed liquidity and stave off a broader financial collapse. This was due in large part to the unpopularity of some of the actions regulators took, even if those actions were profitable for the government and effective in reducing damages to the real economy. While Dodd-Frank's restrictions on regulatory authority in exceptional circumstances are understandable in light of public opinion, the task force believes that Congress in this case went too far. As a recent International Monetary Fund working paper found:

Another general lesson [of the financial crisis] is the need for the capacity to efficiently and flexibly respond to a crisis. The large, but unplanned role of central banks during the (ongoing) crisis in advanced countries demonstrates the need to have this spare capacity.¹¹¹

Given the political concerns surrounding regulatory action, Congress could have imposed even greater restrictions than it did. Congress wisely preserved the ability of the Federal Reserve to make emergency loans on a programmatic basis to groups of nonbanking companies. This type of programmatic action was one of the most effective tools the agency used during the crisis to inject stabilizing liquidity into the financial system. However, the agency's emergency lending to individual companies, while unpopular, was also effective at times in staving off far worse financial stability problems. Most notably, emergency loans on a one-off basis to AIG prevented the type of systemically disruptive and disorderly failure experienced by Lehman Brothers. While the Federal Reserve's lending to AIG was ultimately replaced with capital by the Treasury Department through the TARP program, it took Congress a while to act to create that program. In contrast, the Federal Reserve was able to act quickly and decisively with its emergency authority. It also bears repeating that all such loans were ultimately repaid with interest to the taxpayer. The same proved true with respect to the emergency loans or guarantees provided to Bear Stearns and to the overall TARP investment in all banks, including the capital and loss guarantees provided to the largest financial institutions.

The hope of Dodd-Frank is that this type of emergency lending to an individual company to stave off failure will no longer be necessary in light of the Act's creation of Orderly Liquidation Authority for the FDIC, complete with a new source of government liquidity, that will enable that agency to resolve a failing large financial company in an orderly manner. This hope may well prove to be realized, as BPC's Failure Resolution Task Force made clear

in its recommendations related to the Orderly Liquidation Authority and the promising single-point-of-entry approach to using that authority. If properly implemented, these new tools—along with others, such as enhanced prudential standards, stress tests, and living wills for large financial institutions—have the potential to do much to end the "too-big-to-fail" problem.

Yet, the future is uncertain. It is impossible to predict whether there will be a similar or different type of compelling need—whether caused by a financial crisis or the desire to avoid one—to make an emergency loan to an individual company to preserve financial stability. In 2008, U.S. government officials were fortunate and grateful to have such flexible, "break-the-glass-in-an-emergency" authority to address unforeseen problems at individual firms. Moreover, they used that authority prudently and in a limited way, however unpopular it proved to be. Future government officials need to have that same emergency authority to address future unanticipated problems that threaten financial stability.

To be sure, the Federal Reserve's extraordinary authority should be reserved for true emergencies. Indeed, that is precisely what occurred with the previous authority to make emergency loans to single non-depository institutions: such authority had been created in the 1930s, but was never used to any significant degree for more than 70 years until the onset of the recent financial crisis. ¹¹³ As a result, it is difficult to make a case that companies *relied* on such lending or that market participants perceived that such loans would be made when assessing the risks of their counterparties. To ensure the emergency nature of such authority, legislative change to reinstate it should establish appropriate thresholds so that the loans could be made only in truly exigent circumstances. Dodd-Frank included new transparency requirements and other restrictions on the Federal Reserve's use of this emergency lending authority, ¹¹⁴ and such requirements should remain in place.

Moreover, Congress appears to have imposed its restriction on individual company lending in large part to try to address concerns about moral hazard. Moral hazard results from stakeholders taking on additional risk because they believe they are insured against downside risk. A prominent example is the too-big-to-fail case, where creditors of a large financial institution do not have appropriate incentives to prevent the institution from engaging in excessively risky, potentially more profitable behavior, since those creditors expect the government to intervene to make creditors whole by saving the institution if it is in danger of failing and damaging the broader financial system.

Some have argued that allowing the Federal Reserve to lend to individual institutions creates moral hazard. This gets the logic backward. Take, for example, a hypothetical case in which two major companies originate most of the auto loans in the United States. Company A has made high-risk investments in assets that have gone bad, causing Company A to become insolvent and threatening to put the entire financial system at risk. Company B is well managed and solvent but faces short-term liquidity problems because the market is nervous about lending to any auto loan originators due to the actions of Company A. Under Dodd-Frank's new provisions, the Federal Reserve is unable to extend credit to Company B while letting Company A fail, because such lending must be conducted through programs

with "broad-based eligibility"—that is, be offered to both companies A and B. In so doing, the new provisions make it more difficult to punish Company A's shareholders and management, who have not done their jobs well, without also punishing the stakeholders in Company B. In this way, the new lending provisions can actually create moral hazard.

What's more, forcing the Federal Reserve to wait until an entire, broader class of firms is at risk is likely to delay lending until market conditions are worse, perhaps until it is too late for the lending to do much good. If in 2008 the Federal Reserve had been forced to wait until the entire insurance industry was at risk before extending credit to AIG, the giant insurer would have collapsed, causing huge collateral damage to the rest of the financial system. The speed at which the government can act during a financial crisis is a critical element for success. The importance of rapid action may continue to grow as technology and global interconnectedness of markets increases further. While the availability of a new resolution mechanism in Title II of Dodd-Frank would likely mitigate the need to lend to a company like AIG on a one-off basis, a different kind of financial stress might not be as susceptible to resolution in this manner.

As authors for the International Monetary Fund wrote:

[I]ntroducing too much rigidity in rules hinders future crisis management. For instance, the Dodd-Frank Act disallows the Federal Reserve System from providing liquidity to certain entities, even in an emergency, without the Treasury Secretary's "permission." To "tie the hands" of some authorities in such a way to prevent moral hazard issues from arising may at the end of the day cause more panic than it prevents when financial stress arises. 115

Therefore, the task force recommends that Congress reinstate the ability of the Federal Reserve to make emergency loans to an individual non-depository institutions. To ensure the emergency nature of such authority, legislative change to reinstate it should establish appropriate thresholds so that the loans could be made only in truly exigent circumstances.

Recommendation 2: Eliminate an Obstacle to Emergency FDIC Debt Guarantees

Congress should eliminate the Dodd-Frank requirement for the FDIC to gain prior congressional approval to provide emergency guarantees to debt issued by depository institutions or their affiliates.

For the same reasons it was unwise for Congress to remove tools from the Federal Reserve's crisis-management toolbox, it was unwise to restrict the FDIC's emergency authority. As detailed above, Dodd-Frank curtailed the ability of the FDIC to use the systemic risk exception outside the context of the failure of an individual depository institution. As a result, the authority arguably can no longer be used, as it was in the crisis, to take financial stability actions that are only loosely related to a specific depository institution, such as guaranteeing debt issued by depository institution holding companies on a programmatic basis.

At the same time, though, Dodd-Frank expressly and appropriately recognized the value of the FDIC providing, "during times of severe economic stress,"¹¹⁷ programmatic guarantees of debt issued by healthy insured depository institutions and their affiliates in order to address a "liquidity event" affecting the ability of such institutions to obtain funding.¹¹⁸ The task force views this as a positive lesson learned from the financial crisis and supports the express establishment of this new tool for fighting financial panic.

Unfortunately, however, while Congress imposed prudent controls to govern the use of this new debt guarantee authority, in one instance it went too far: before any specific guarantee may be issued, the FDIC must obtain a joint resolution of approval from Congress. While procedures are included in Dodd-Frank to fast-track such a joint resolution, there can be no assurance that approval would occur or, if it did occur, that it would be swift in coming. The resulting potential for inaction or inordinate delay is too high a hurdle to impose when effective, speedy action is called for, as will almost certainly be the case in any financial crisis—and was indeed the case in 2008. While effective safeguards on this broad FDIC authority are needed, Dodd-Frank imposed other controls to avoid potential abuses of this new authority. Specifically, guarantees may now only be provided if:

- After receiving a request from the secretary of the Treasury,¹²⁰ the Federal Reserve Board and the FDIC must each determine, by a minimum two-thirds vote of each agency's board,¹²¹ the following: that a liquidity event exists, that a failure to act would have severe adverse effects on financial stability or economic conditions in the United States, and that a debt guarantee is needed to mitigate such potential effects:¹²²
- The debt guarantee is programmatic and widely available;
- It is only provided to healthy insured depository institutions or their affiliates and is not used to provide equity investments to any entity; 123

- The FDIC issues regulations in advance, in consultation with the Treasury secretary, to set the terms and conditions of the guarantee, including fees to be charged to institutions by the government to pay for the guarantee; 124
- The secretary of the Treasury establishes a cap on the total amount of guarantees to be issued under the program; ¹²⁵ and
- Any excess fees collected to administer the program are deposited in the general fund of the U.S. Treasury, and any shortfall is offset by assessments on participants in the program, and not by taxpayers.¹²⁶

This important set of controls would be sufficient to avoid potential abuses of this new authority—without the need for separate congressional approval through a joint resolution. The task force therefore recommends that the joint resolution approval requirement be eliminated.

Recommendation 3: Extend Federal Reserve Liquidity Access to Certain Broker-Dealers

Broker-dealers owned by regulated SIFIs should be granted access to collateralized liquidity from the Federal Reserve, comparable to access provided to depository institutions, to help address the liquidity needs of the U.S. financial system. Similar access should be provided to a broker-dealer not owned by a SIFI where the broker-dealer's balance sheet makes it especially vulnerable to runs. Access to such liquidity, similar to discount-window lending, should only be provided subject to terms and conditions, including supervisory conditions, established by the Federal Reserve in consultation with the Securities and Exchange Commission (SEC).

Containing the potential damage from a crisis once it starts is only part of the battle. It is far better to prevent systemic threats from occurring in the first place. In this regard, there are important steps that can and should be taken to further improve the safety and resilience of the financial system.

In particular, at the core of every financial crisis is the potential for a run on at least one type of liability. The combination of deposit insurance and discount-window lending has proved to be an effective set of tools for reducing the threat of runs on deposits at commercial banks. vii However, there has been a pronounced trend in the U.S. financial system to fund an increasing proportion of financial assets outside the banking system, in many cases with short-term non-deposit liabilities, such as MMMFs, repurchase agreements, and commercial paper (including asset-backed commercial paper). It was precisely these sorts of non-deposit, money-like liabilities that proved vulnerable to runs during the financial crisis, yet the government did not have the same tools to address these vulnerabilities as it has with depository institutions. As a result, what began as smaller and more contained liquidity problems at particular nonbanking firms quickly spread throughout the financial system. The U.S. Treasury, the Federal Reserve, and the FDIC creatively devised a number of emergency liquidity tools to prevent an even greater financial panic. Eventually, these emergency government efforts proved successful, but not for a substantial period of time and only with the commitment of enormous amounts of government resources. When government authorities are forced to set up liquidity facilities in emergency situations, the very existence of an emergency typically means that significant damage has already been inflicted on the financial system.

Accordingly, it is important to recognize the changed funding structure of the U.S. financial system and adopt policies that have the potential to address significant run risk at non-depository institutions *before* runs occur, panic is ignited, and emergency measures are required. Enhanced liquidity requirements, such as the Liquidity Coverage Ratio and the Net Stable Funding Ratio, are sound efforts to address such run risk, both at banks and certain

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vii Despite these safeguards, runs on commercial deposits can still happen. The 2007-2008 financial crisis was exacerbated by damaging runs on deposits at IndyMac, Wachovia, and Washington Mutual, for example.

nonbanks. In addition, the Federal Reserve has discussed other measures that it is considering regarding firms' reliance on short-term wholesale funding.¹²⁷

While important, these measures may not prove adequate for preventing runs at nonbank institutions that need to fund large amounts of assets with large amounts of short-term liabilities. In this context, the oldest and most successful tool to address run risk, the central bank's ability to provide liquidity against collateral, should be carefully extended, but only where such risk is significant with respect to the liquidity of the financial system as a whole. In addition, extending such liquidity access, whether through the discount window or a similar facility, should only be done if these institutions are subject to appropriate prudential regulation and supervision.

The institutions that most clearly satisfy such criteria are the largest broker-dealers, all of which are currently owned by bank SIFIs. These institutions rely on substantial quantities of short-term wholesale liabilities to fund their core trading businesses. During the financial crisis, the vulnerability to runs at firms like Bear Stearns, Lehman Brothers, and Merrill Lynch was a core accelerator of systemic risk. Had market participants known at that point that the other broker-dealers had liquidity access they would have had less cause to lose confidence in broker-dealers as a group.

While such run risk was especially pronounced for those large broker-dealers that were not affiliated with large depository institutions, even those broker-dealers that did have such affiliations with banks remained vulnerable to run risk. It is true that due to mergers and restructurings during the financial crisis, all the major U.S. broker-dealers are affiliated with large banks, and each such affiliated bank has direct access to Federal Reserve discount-window loans. There are, however, significant restrictions on the ability of those banks to transfer funds to their affiliated broker-dealers. As a result, the broker-dealer subsidiaries in these organizations remain much more susceptible to run risk in the event of financial stress than their affiliated banks—even though the organizations have been deemed to be SIFIs and are therefore already subject to extensive consolidated supervision by the Federal Reserve.

In this context, the type of access to collateralized liquidity extended to a depository institution owned by a SIFI ought to be extended to a broker-dealer owned by the same SIFI. Because of the scale of their trading businesses and the nature of their funding, these broker-dealers are the institutions that, in times of financial stress, would be most susceptible to the types of runs that could have systemic consequences if not checked with tools similar to discount-window loans—even taking into account the liquidity reforms of Dodd-Frank and Basel III.

In addition, having access to such liquidity would make it easier to resolve such an entity and its parent organization in an orderly manner under the traditional insolvency regimes of the U.S. Bankruptcy Code and the Securities Investor Protection Act, without resorting to the provisions created in Dodd-Frank's Title II, including those provisions that provide a failing firm with access to emergency liquidity from the government, which could be used by

a broker-dealer subsidiary. This is important because Congress made clear in the Act its strong preference for failing firms to use such traditional insolvency regimes, rather than Title II, wherever possible—which has been recognized by BPC's Failure Resolution Task Force as well. 129 It is also important because making it easier for such firms to fail in an orderly manner strengthens the expectation of market participants that they will be allowed to do so, thereby mitigating the negative externalities associated with the too-big-to-fail problem.

Moreover, because the organizations that currently own the very largest broker-dealers have all been made subject by Dodd-Frank to enhanced prudential standards as bank SIFIs, they are already subject to the system's most intensive form of consolidated regulation and supervision by the Federal Reserve. As a result, extending the safety net from the banking part to the broker-dealer part of the organization should not present the same regulatory challenges as would be the case with extending collateralized liquidity to an entirely unregulated institution.

That said, extending such liquidity access should only be done if these institutions are subject to appropriate regulation and supervision. In this context, the Federal Reserve's existing consolidated supervision provides extensive oversight of the broker-dealer, as does the SEC's existing broker-dealer regulatory and supervisory regime. That may not be enough, however. As the entity extending the loans to the broker-dealer, the Federal Reserve would need to be satisfied that the broker-dealer is subject to the level of scrutiny the agency requires of any institution that receives such loans. Accordingly, the Federal Reserve should, in consultation with the SEC, be required to develop the terms and conditions, including supervisory conditions, that the broker-dealer would need to satisfy in order to be eligible for the collateralized liquidity envisioned here.

Finally, some may be concerned with the idea of extending liquidity access to some but not all broker-dealers. Currently, the broker-dealers that have the largest trading businesses, the largest balance sheets, and that fund themselves most heavily with short-term liabilities are the ones for which the logic for liquidity access is most compelling. These broker-dealers are owned by bank holding companies that are already heavily regulated, which reduces the risk of extending liquidity access. Conversely, most smaller broker-dealers do not have the type of large balance sheets and funding structures that make them especially vulnerable to run risk. As a result, for them, access to such loans would not be necessary, the extra regulation that would accompany such access would also not be necessary (or desirable), and any competitive concerns from not having access would likely be minimal.

However, there may be circumstances where a broker-dealer that is not owned by a SIFI engages in such substantial trading activities funded by short-term liabilities that it, too, would present the type of run risk that would warrant access to collateralized liquidity from the Federal Reserve, for all the reasons described above. If the owner of such a firm were designated as a nonbank SIFI, its broker-dealer subsidiary would qualify for access to liquidity from the Federal Reserve under the recommendation proposed above. But if the broker-dealer's organization were not a SIFI, and if the broker-dealer itself nevertheless

presented significant levels of vulnerability to run risk, the Federal Reserve should have the authority to provide liquidity support comparable to the discount window to such a firm. Again, if the Federal Reserve were to extend such access, the broker-dealer should be subject to the terms and conditions for that access, including supervisory conditions, that the Federal Reserve should be required to develop in consultation with the SEC.

Although giving broker-dealers access to the discount window is the most obvious way of providing liquidity, the Federal Reserve should consider setting up a new facility specifically for this purpose. This is because banks in general are wary of borrowing through the discount window since they fear that the market will believe they are in trouble if they have to do so. The Federal Reserve Bank of New York has tried to quantify this discount-window stigma. They found that banks were willing to pay a premium of, on average, more than 44 basis points to borrow from the Term Auction Facility, a special facility specifically set up to allow banks to access liquidity without the discount-window stigma. Following the failure of Lehman Brothers, the stigma premium increased to more than 143 basis points. These are penalties paid by banks that it would be most beneficial to avoid during a crisis. Therefore, although it may not be possible to entirely eliminate the prospect of stigma associated with a broker-dealer accessing central bank lending, creating a facility separate from the bank discount window could help address that concern.

A successful and effective facility to provide central bank liquidity access to broker-dealers would have two hallmarks. First, it would make it easier to manage liquidity problems at broker-dealers that are experiencing temporary liquidity rather than insolvency problems and easier to stem contagion from impacting healthier firms. Second, it would facilitate the orderly failure of a truly insolvent broker-dealer: while such a firm would *not* have access to the new facility, other, solvent broker-dealers would, and that access would help prevent runs from spreading from the insolvent firm to healthy firms.

Many broker-dealers carry significant quantities of liabilities on their balance sheets that are susceptible to runs. In a crisis, it can be very appropriate for central banks to make temporary liquidity available to those institutions to prevent such runs. The Federal Reserve did just that in the most recent crisis, providing liquidity to broker-dealers once the panic began. It is, however, better for market participants to know that central bank liquidity access will be available to broker-dealers when liquidity issues first appear rather than only at a later time when such smaller problems turn into market-wide stress or even panic. Once such system-wide events occur, government crisis managers often require much higher levels of resources to mitigate further damage. For this reason, broker-dealers that have substantial run risk should be offered central bank liquidity access, subject to regulatory and supervisory conditions.

Recommendation 4: Authorize the FSOC to Issue Regulations When Member Agencies Fail to Act

Congress should authorize the FSOC to issue regulations on its own initiative under statutory authority already granted by Congress to one or more of the FSOC's member agencies when:

- (a) One or more member agencies of the FSOC have been required to issue a regulation by a statutory deadline and those agencies have failed to do so within 180 days of that deadline; or
- (b) The FSOC determines that, in extraordinary circumstances, a failure to issue regulations by one or more member agencies to address a financial activity or practice poses a serious and material threat to the financial system.

The FSOC should only be allowed to take such extraordinary action on its own initiative by a supermajority vote of all its members, and only when it makes an express finding, with supporting reasons, that doing so is in the public interest.

As mentioned previously, the creation of the FSOC is a positive step that holds the potential for better oversight of the financial system. Dodd-Frank established the Council and the OFR to patrol the boundaries of financial services, to look over the horizon to anticipate potential future sources of systemic risk, and to ensure that pockets of such risk do not grow outside of the regulated perimeter to levels where they could become threats to financial stability. The specific purposes of the Council include identifying risks to financial stability, promoting market discipline, and responding to emerging threats to stability. The specific purposes of the FSOC, including identifying regulatory gaps that could pose a risk to financial stability, facilitating coordination and information-sharing among its member agencies, and providing direction to the OFR. 132

The FSOC's single major power is its ability to designate nonbank SIFIs, which is a power with a binary outcome. A danger in having one primary authority is the tendency to look at every problem through the lens of that authority, even if it is not the best solution in a given case.

Dodd-Frank gave the FSOC more limited authorities and duties, separate and apart from its authority to designate nonbank SIFIs, to address activities or practices that may pose risk to financial stability. This more limited authority includes "naming-and-shaming" power, which is the authority to publicly recommend that a member agency take a particular action and, if the agency does not take the recommended action, require the agency to publicly report to Congress its reasons for failing to do so. Dodd-Frank did not, however, empower the FSOC to write rules or regulations, nor does the FSOC have the authority to require its member agencies to take action within their existing regulatory authority to prevent activities or practices even if a supermajority of the Council agrees that they pose a substantial risk to the financial system. In addition, while Dodd-Frank charged the FSOC

with facilitating coordination among its member agencies,¹³⁴ the Council lacks the power to force its member agencies to come to agreement on joint rules or regulations with respect to such activities.

For the FSOC to be able to more effectively fulfill its purposes and duties, it should be given additional authority to enhance financial stability within its current mandate. Both the FSOC and the OFR should also ensure that their attention is balanced to adequately fulfill the purposes and duties that Dodd-Frank set for them.

Dodd-Frank mandated numerous instances where two or more agencies were required to jointly write and promulgate rules and regulations. A well-known example is the so-called Volcker Rule regulations, where Congress gave rulemaking responsibility to five different agencies. Regulators missed the deadline for adopting final rules to carry out the Volcker Rule by more than two years, and the new regulations are scheduled to go into effect in 2015, three years after the deadline set in Dodd-Frank. At one point in the process, it appeared possible that the regulators would issue multiple, potentially conflicting Volcker Rule regulations, an outcome opposed at the time by BPC's Capital Markets Task Force. While joint rulemakings have the advantage of drawing on multiple perspectives, too many times the process has resulted in interagency friction and missed deadlines.

Section 112 of Dodd-Frank includes the FSOC's duty to "facilitate information sharing and coordination among the member agencies and other Federal and State agencies regarding domestic financial services policy developments, rulemaking, examinations, reporting requirements, and enforcement actions." In addition, Section 119 gives the FSOC authority to recommend a method to resolve disputes among two or more agencies. Any recommendations of the FSOC, however, must be requested by at least one of the agencies involved in a dispute and are nonbinding on the agencies.

The task force recommends giving the FSOC more power to resolve disputes and force action. In cases in which two or more regulators miss statutorily imposed deadlines for agreeing on rules or regulations by more than 180 days, the Council should be empowered by a supermajority vote of all its members to issue regulations on its own initiative. Upon invocation of this authority, each agency responsible for the joint rulemaking should be required to submit its proposed rule to the Council. The FSOC chair should have the option of either advocating for one of the options submitted by an agency or submitting an alternative proposal that combines elements from two or more proposed rules. The FSOC members should then vote on the set of options, using approval voting to decide on the final rule or regulation. ix

viii The five agencies were the Commodity Futures Trading Commission, the FDIC, the Federal Reserve, the Office of the Comptroller of the Currency, and the SEC.

^{ix} An approval vote is one in which voters may "approve" as many voting options as they would like, and the one that receives the most votes is declared the winner. In this case, tie votes among members of the FSOC would be broken by the vote of the FSOC chair.

In practice, this proposed authority should never have to be used. The threat of having rulemaking authority taken out of their hands should be a powerful incentive for agencies to reach agreement among themselves before deadlines elapse.

Given the enormous economic and social costs associated with financial crises, the FSOC was vested with authority to respond to substantial threats to the financial system. Section 120 of the Dodd-Frank Act allows the FSOC to recommend that its member agencies adopt "new or heightened standards and safeguards" for "a financial activity or practice ... if the Council determines that the conduct, scope, nature, size, scale, concentration, or interconnectedness of such activity or practice could create or increase the risk of significant liquidity, credit or other problems spreading." The FSOC used this authority when it recommended that the SEC adopt further reforms to address the systemic risk posed by MMMFs to the financial system. In July 2014, the SEC voted to adopt two of the three provisions the FSOC suggested as possibilities for additional reform. 141

Yet, the power to recommend is not the power to require action. The FSOC's member agencies are not required to follow the recommendations of the Council, which must rely on its moral suasion to convince an agency that receives recommendations to act on them. If the safety and soundness of the financial system is to be given the priority it deserves, the FSOC should have the authority to act to respond to systemic threats.

Therefore, the task force recommends that the FSOC be given the authority to issue regulations on its own initiative when one or more member agencies have failed to issue regulations to address an activity or practice constitutes a serious and material threat to the financial system. Such authority could have been used in the 2000s, for example, to improve loan underwriting standards that had deteriorated so much prior to the financial crisis or to raise capital and/or liquidity. It could also have been used to force the Federal Reserve to write and implement regulations it was given to restrict abusive mortgage practices under HOEPA. The agency did not implement those regulations until 2008. The authority for the FSOC to force or prevent action will not stop every systemic threat, but it will give regulators another tool to limit them.

The enhancements proposed in Recommendation 4 to better coordinate among member agencies and step in when a member agency fails to act to address a systemic threat would likely be used only in rare cases owing to a supermajority requirement for each. It is prudent and in keeping with the theme of this paper's previous recommendations, though, for the FSOC to be given the power to effectively act in extraordinary circumstances.

It is important that such authority be limited to areas that are already within the jurisdiction of at least one of the Council's member agencies, rather than being a blank check for the FSOC to regulate in areas that have not been authorized by Congress. The FSOC should monitor areas outside its jurisdiction for potential threats to financial stability but, having found them, should go to Congress to authorize it to act. In addition, the task force only recommends giving the FSOC power to act when a member agency has failed to act in a critical area. Congress could, however, one day decide it is appropriate to extend that

authority to override the action of a member agency that the Council believes is a threat to financial stability.

The ability to effectively analyze regulatory and supervisory matters is only as good as the data that undergirds that analysis. Prior to and during the crisis, insufficient and non-standardized data compounded the lack of macro-prudential supervision and regulation by giving agencies that relied on financial data an incomplete and flawed picture of markets and the interconnectedness of institutions, activities, and products. Dodd-Frank assigned the OFR several duties, among them to collect "financial transaction data and position data from financial companies" and to prepare and publish "a financial instrument reference database" with formats and standards for such data, "including standards for reporting financial transaction and position data" to the OFR. 145

In support of its purpose and duty to collect and provide data to the FSOC members,¹⁴⁶ the OFR should ensure that sufficient attention is paid to fulfilling its statutory goal of creating a data standard that allows the FSOC member agencies to conduct forward-looking analysis of financial markets. While the OFR's analysis functions are important, a well-designed data standard that provides more relevant data in a timelier manner than is currently available has the potential to transform financial regulation and should therefore be given priority.

Finally, the FSOC should enhance the transparency of its actions and decision-making process on macro-level issues. Financial regulators have long complied with the Administrative Procedure Act, used external advisory bodies, and promoted transparency while conducting highly sensitive company specific regulation. The Federal Reserve's Federal Open Markets Committee (FOMC) has discussed systemically risky events in real time and managed to publish detailed public minutes on a regular basis. The FSOC, on the other hand, is right to be sensitive about releasing supervisory and potentially proprietary information about the individual institutions with which it works.

A relevant and recent macro example is the Puerto Rican debt crisis. The situation is one that has posed significant risk to the financial system, making it a likely topic of conversation for the FSOC. The Council's minutes, however, did not mention the subject. The FOMC's minutes mentioned Puerto Rico in its minutes several times, including in January 2014.¹⁴⁷

The FSOC should be able to hew to the same standards achieved by its member agencies. Increasing its transparency can increase confidence in the Council's capabilities, which can itself help to mitigate certain types of systemic risk.

In addition to increasing transparency to the public for its thoughts on financial stability, the FSOC should enhance the transparency with which it operates with each company under consideration for designation as a non-bank SIFI. Better interaction between these entities and the Council ought to improve the process by which designation occurs, thereby increasing regulatory quality. Specifically, companies under consideration for designation should be allowed to provide information and comment on the accuracy of data used for analysis by the FSOC. The Council should also proactively inform companies when they have

reached new stages of inquiry in the path to designation. Finally, companies under consideration should be able to engage in dialogue with all FSOC members during the designation process.

To be clear, these suggestions are meant to improve the quality of the process by which designation occurs. The task force understands and respects the inherently non-public nature of the specific company designation process. Designation is similar to prudential regulation in that there is an appropriate level of non-public discourse that can and should go on between regulators and financial institutions. However, a private process can still benefit from additional communication and increased transparency between regulators and the regulated.

Recommendation 5: Ensure the Federal Reserve Tailors its Regulation and Supervision of Nonbank SIFIs

The Federal Reserve should tailor the regulation and supervision of nonbank SIFIs to account for the ways they are different from banks. Congress should also ensure that regulators have appropriate authority to implement such tailoring.

Bringing nonbanking organizations that are systemically significant within the ambit of substantial federal regulation is a key goal of Dodd-Frank. One approach to this is through the FSOC's designation of a nonbank as a SIFI, which means it is subjected to supervision and regulation by the Federal Reserve. Similarly, with the enactment of Gramm-Leach-Bliley, the Federal Reserve has consolidated supervisory authority and responsibility with respect to companies owning both nonbank financial firms as well as insured banks. This responsibility means, of necessity, that the Federal Reserve must develop and maintain the expertise, policies, and resources required to appropriately supervise and regulate nonbank financial firms that are subject to its supervision, which currently includes financial market utilities, insurance companies, securities firms, and other financial companies.

Designated nonbank SIFIs, as well as bank SIFIs, ought to be subject to rigorous prudential supervision. They should not, however, be regulated in exactly the same way as bank SIFIs. While it is possible for nonbank companies to present the type of systemic risk that warrants designation as nonbank SIFIs, the risks presented by such institutions are likely to be different from the ones presented by predominantly banking organizations. As a result, the consolidated supervision of such institutions ought to be tailored to address those different risks, even if the resulting requirements are different from those that apply to bank SIFIs.

It is helpful that several provisions of Dodd-Frank expressly recognize this distinction and embrace the concept of tailored requirements for nonbank SIFIs. Section 165 of the Act, for example, makes clear that, in developing prudential standards for designated nonbank financial companies, the Federal Reserve "shall take into account differences among nonbank financial companies supervised by the Board of Governors and bank holding companies, based on ... nonfinancial activities and affiliations of the [nonbank financial company]."¹⁴⁸ [Emphasis added.]

The Federal Reserve should also consider how to best tailor the application of capital rules and prudential regulation for the predominantly nonbank activities that exist within some bank SIFIs. Dodd-Frank provided this authority in Section 165, which states that:

In prescribing more stringent prudential standards under this section, the Board of Governors may, on its own or pursuant to a recommendation by the Council in accordance with Section 115, differentiate among companies on an individual basis or by category taking into consideration their capital structure, riskiness, complexity, financial activities (including the financial activities of their subsidiaries), size, and any other risk-related factors the Board of Governors deems appropriate.¹⁴⁹

In addition, Section 115 of the Act states that in making recommendations for establishing and refining prudential standards for nonbank SIFIs, the FSOC "may differentiate among companies that are subject to heightened standards on an individual basis or by category, taking into consideration their capital structure, riskiness, complexity, financial activities (including the financial activities of their subsidiaries), size, and any other risk-related factors that the Council deems appropriate."¹⁵⁰

Section 115 also states that in making recommendations for prudential standards the FSOC "take into account differences among nonbank financial companies supervised by the Board of Governors and bank holding companies" and "adapt its recommendations as appropriate in light of any predominant line of business of such company, including assets under management or other activities for which particular standards may not be appropriate." ¹⁵¹

The same section also says that in prescribing prudential standards, the Federal Reserve shall "take into account differences among nonbank financial companies supervised by the Board of Governors and bank holding companies." ¹⁵²

The task force recommends that the Federal Reserve take seriously Dodd-Frank's directive to tailor requirements to different risks and different business models. In this regard, the task force supports the deliberation that the agency has undertaken with respect to requirements for insurance company SIFIs. In responding to a specific question about the treatment of insurance companies under its jurisdiction, Board Chair Janet Yellen said, "There are very significant differences between the business models of insurance companies and the banks that we supervise, and we are taking the time that is necessary to understand those differences and to attempt to craft a set of capital and liquidity requirements that will be appropriate to the business models of insurance companies." A similar approach should be taken with respect to any nonbank supervised or regulated by the Federal Reserve.

In addition, in a memo on its final rules to implement the enhanced prudential standards required in Section 165, Federal Reserve Governor Daniel K. Tarullo indicated that the agency would in general tailor its regulations for nonbanks:

The expectation is that nonbank financial companies that are similar in activities and risk profile to BHCs [bank holding companies] likely will be made subject to enhanced prudential standards similar to those that apply to BHCs. For those that differ from BHCs in their activities, balance sheet structure, risk profile, and functional regulation, more tailored standards would be applied.¹⁵⁴

A separate but related issue is whether the Federal Reserve's culture and traditions will allow it to effectively regulate and supervise nonbank SIFIs. The Federal Reserve, although it has the responsibility for regulating and supervising financial activities generally, has appeared to approach regulation thus far from a banking perspective; thus, concerns have been expressed that it will naturally default to bank-style regulation when overseeing nonbank SIFIs and will be reluctant to adopt appropriate tailoring to reflect real differences in business models and risk. A similar issue is whether the Federal Reserve will achieve the

level of expertise and knowledge of the nonbank industries it oversees to achieve the right degree of tailoring.

Two encouraging signs here are the agency's recent actions to address its oversight of insurance companies: its hiring of a former state insurance commissioner and its decision to join the International Association of Insurance Supervisors. Both actions appear designed, at least in part, to better understand the business of insurance for purposes of enhancing Federal Reserve regulation of insurance company SIFIs. That said, these actions should be followed by similar moves to improve the agency's understanding of the industries of insurance and other nonbank SIFIs. Further, the task force recommends that the Federal Reserve, when crafting regulations for nonbank SIFIs, should not simply default to bank regulation; that is, it should be open to different regulation that better reflects a nonbank SIFI's actual risks. By definition, these companies are different from banking organizations—with different balance sheet structures, revenue streams, and risk profiles—and the Federal Reserve needs to be open to quite different forms of regulation and supervision to reflect those different attributes and risks. In this regard, it is important to understand that tailored regulation and supervision does not mean more lenient regulation and supervision. Rather, it means that any regulation and supervision needs to reflect the particular nature and risks of the business in question.

In short, both Dodd-Frank and the Federal Reserve are on record as supporting the tailoring of prudential standards for nonbanks. The task force agrees and encourages the Federal Reserve to continue to gain the knowledge and expertise necessary to effectively tailor the regulation and supervision of nonbank SIFIs.

Tailoring and the Collins Amendment

Unfortunately, Section 171 of the Act—the so-called "Collins Amendment"¹⁵⁵—has been interpreted by the Federal Reserve as requiring the application of bank-like capital requirements to all entities regulated by the Federal Reserve. Section 171 was intended to set a floor for capital and leverage requirements. The provision, however, applies not just to banks:

The appropriate Federal banking agencies shall establish minimum leverage capital requirements on a consolidated basis for insured depository institutions, depository institution holding companies, and nonbank financial companies supervised by the Board of Governors.¹⁵⁶

The Federal Reserve's position is that although they understand the desirability of treating banks and nonbanks differently, the agency is restricted in its freedom of action by Section 171.

The author of the amendment, Senator Susan Collins, herself has said that she intended her amendment to allow the Federal Reserve to treat banks and nonbanks differently. At a recent Senate hearing on the application of capital standards to insurance companies, Senator Collins said that she found the agency's suggestion that it lacks clear authority to

tailor prudential requirements "frustrating," and that "Section 171 does not direct the regulators to apply bank-centric capital standards to insurance entities." ¹⁵⁷

Since, however, the Federal Reserve maintains that it is prevented by Section 171 from implementing the tailoring it would like, the task force recommends that Congress modify that provision to make clear that it does not prevent the Federal Reserve from adopting capital rules for nonbank SIFIs that are different from those applicable to bank SIFIs, so long as such differences appropriately reflect differences in risk.

In this context, the task force recommends that the FSOC take a more active role in assisting the Federal Reserve with respect to recommended tailoring of standards for nonbank SIFIs.

Section 112 of Dodd-Frank assigned the FSOC the duty to make recommendations to its member agencies in certain circumstances. Among those are the responsibilities to (1) make recommendations to the Federal Reserve concerning the establishment of heightened prudential standards for nonbank financial companies; 159 (2) make recommendations to primary financial regulators on applying new or heightened standards and safeguards for financial activities or practices that could create or increase risks of significant liquidity, credit, or other problems spreading among bank holding companies, nonbank financial companies, and U.S. financial markets; 160 and (3) recommend general supervisory priorities and principles to member agencies. 161

The FSOC could issue a recommendation to help guide the Federal Reserve in its reading of Dodd-Frank regarding heightened prudential standards for nonbank SIFIs based upon each, or all, of these duties. The recommendation could be deemed to be a "general supervisory principle" that reflects discussions among the member agencies. Alternatively, it could be classified as a "heightened" prudential capital standard recommended to the Federal Reserve. Or, it could be viewed as a "new" standard for financial activities that could create risks among banking and nonbank financial firms and U.S. financial markets. In this, the FSOC could provide the Federal Reserve with an opinion as to the value of tailoring and what kind of tailoring would be appropriate for nonbanks.

The FSOC also may look to other complementary provisions in Dodd-Frank to support a recommendation to the Federal Reserve. As noted earlier, Section 115 provides that the FSOC may make recommendations to that agency concerning the establishment and refinement of applicable prudential standards for nonbank SIFIs and, in doing so, may differentiate between different risk structures. Section 120 gives the FSOC the power to recommend additional prudential standards for specific activities or practices conducted by nonbank SIFIs. Section 165 provides for the Federal Reserve to consult with the FSOC in establishing alternatives to capital standards in the event that such standards may not be appropriate for a company subject to its supervision.

In addition to providing guidance to the Federal Reserve, the FSOC should do the same for Congress, which is currently wrestling with whether it is necessary to pass legislation to

"fix" Section 171 and, if so, what form it should take. The FSOC has the wide variety of expertise to give sound advice in this regard.

While such steps on the part of the FSOC would be helpful, the task force also recommends that Congress pass legislation clarifying the ability of the Federal Reserve to tailor its regulation for all nonbank SIFIs.

As noted previously, Federal Reserve officials have made encouraging statements about the agency's understanding of the value of tailoring prudential standards for nonbank SIFIs. The Federal Reserve should proceed along these lines to the extent that it can. Given, however, that the Federal Reserve interprets Section 171 as making the agency unable to tailor standards for nonbank SIFIs as it intends and should, Congress should pass legislation to ensure that the agency can do so. Several bills have been introduced in the current Congress to address the issue, including the Capital Standards Clarification Act (S. 2270) introduced by Senators Susan Collins (R-ME), Sherrod Brown (D-OH), and Mike Johanns (R-NE); and an identical bill (H.R. 4510) introduced in the House by Representatives Gary Miller (R-CA) and Carolyn McCarthy (D-NY). On June 3, 2014, the Senate passed S. 2270 by unanimous consent. As of this writing, the House is considering whether and how to respond.

The task force does not take a position on the specific provisions of each bill. However, legislation that would clarify the matter of tailoring for the Federal Reserve should be passed to avoid the potential consequences of bank-centric regulation of nonbank SIFIs. It is important to realize, however, that the consequences of an inability to tailor have the potential to affect any nonbanks designated as SIFIs by the FSOC. For that reason, **the task force recommends that Congress consider legislation that would clarify tailoring for all nonbank SIFIs rather than just for insurance company SIFIs.**

Solving the specific problem of allowing tailoring rules for nonbank SIFIs is not enough to ensure that those entities receive appropriate oversight. Regulators should, as a general principle, tailor their capital and other prudential rules to fit the business model of a given industry. To do so, they must understand the differences between banks and nonbanks, and how to differently handle each.

Therefore, the task force recommends that the Federal Reserve acquire and maintain specific knowledge and expertise in each of the industries over which it has prudential oversight. As mentioned, the agency's hiring of a former state insurance commissioner and its decision to join the International Association of Insurance Supervisors is a good sign for its regulation of the business of insurance. The Federal Reserve should follow a similar model for other nonbank activities.

The task force also recommends that Congress require the Federal Reserve to issue a report that details its plan to implement tailored regulation and supervision for nonbank SIFIs. The report should include separate analysis and guidance for insurance companies, broker-dealers, and other nonbank financial activities that the

agency oversees. The process for developing and writing the report should include a formal public comment period.

In addition to employing in-house experts, the Federal Reserve should take full advantage of outside experts from academia, consumer groups, industry, and nonprofits. **The task** force recommends that the agency establish an advisory committee of such experts on the nonbank industries within its jurisdiction.

Conclusion

The financial crisis of 2007-2008 did great damage to the U.S and global economies and to the personal savings of many millions of people. The Dodd-Frank Act and other reforms that have been passed and implemented in response to the crisis have attempted to address the various causes of the crisis and are likely to make the financial system much safer than it was prior to 2007.

There remain, however, important areas in which Dodd-Frank went too far and ended up taking away important tools that the Federal Reserve and the FDIC used to greatly mitigate the negative impacts of the crisis. Leaving the Federal Reserve without the ability to make emergency loans to an individual non-depository institution could result in a containable problem needlessly escalating into a financial panic. Congress should similarly free the FDIC from having to wait for a joint resolution from Congress to approve emergency debt guarantees, which also proved important in containing damage during the last crisis.

In other areas, the evolution of modern finance and the experience gained during the implementation of Dodd-Frank suggest the need for additional reforms. Extending access to collateralized liquidity from the Federal Reserve to broker-dealers that are most vulnerable to damaging runs is one such reform, provided these broker-dealers are also subjected to appropriate regulation and supervision. In addition, Congress should extend the authority of the FSOC to carry out its duties to coordinate among its member agencies and act to try to prevent systemic threats by giving it the power to issue regulations on its own initiative in certain extraordinary circumstances.

Finally, it is important that the supervision and regulation that Dodd-Frank brought to systemically important nonbanks be appropriate to the business models, balance sheet structures, risk profiles, and other relevant characteristics of nonbanks rather than imposing bank-centric oversight on them. In order to achieve this goal, the Federal Reserve needs to tailor its supervision and regulation of SIFIs according to the ways they differ from banks, and acquire the knowledge and expertise to effect such tailoring. Moreover, Congress should ensure that the Federal Reserve has the clear authority and direction to do so.

The task force believes that the recommendations in this report will help prevent systemic threats and will leave the Federal Reserve, FDIC, and Treasury Department in a better position to combat such threats whenever they should occur, leading to a safer and more stable financial system.

Appendix A: Selected Definitions of Systemic Risk

"Although there is no one way to define systemic risk, all definitions attempt to capture risks to the stability of the financial system as a whole, as opposed to the risk facing individual financial institutions or market participants. For example, market participants may believe that they have insured against certain risks. However, if all participants act similarly to avoid those risks, for example, crowding into the same positions, their actions might amplify shocks and threaten the stability of the financial system." 164

Financial Stability Oversight Council (2011)

"A risk of disruption to financial services that is (i) caused by an impairment of all or parts of the financial system and (ii) has the potential to have serious negative consequences for the real economy. Fundamental to the definition is the notion that systemic events are associated with negative externalities. ... The definition requires significant spillovers to the real economy... ."¹⁶⁵

Financial Stability Board (2009)

"The threat that a material event (whether an unexpected crisis, the failure of proper risk management, or the result of public policies) would result in the failure of either financial markets or a significant number of financial firms and cause significant harm to the U.S. economy because of the interconnections between such markets and firms." ¹⁶⁶

James Sivon and Greg Wilson (2010)

"The negative externalities associated with institutions that are perceived as not being allowed to fail due to their size, interconnectedness, complexity, lack of substitutability or global scope are well recognised. In maximising their private benefits, individual financial institutions may rationally choose outcomes that, from a system-wide level, are sub-optimal because they do not take into account these externalities. These negative externalities

include the impact of the failure or impairment of large, interconnected global financial institutions that can send shocks through the financial system which, in turn, can harm the real economy.

The Basel Committee is of the view that global systemic importance should be measured in terms of the impact that a failure of a bank can have on the global financial system and wider economy rather than the risk that a failure can occur."¹⁶⁷

Basel Committee on Banking Supervision (2011)

"Systemic risk can be described as the risk that financial instability becomes so widespread that it impairs the functioning of a financial system to the point where economic growth and welfare suffer materially. The literature has identified three 'forms' of systemic risk, namely contagion risk, the risk that widespread imbalances that have built up over time unravel abruptly, and the risk of macro shocks causing simultaneous failures." 168

European Central Bank (2010)

"The risk or probability of breakdowns (losses) in an entire system as opposed to breakdowns in individual parts or components ... evidenced by co-movements (correlation) among most or all the parts." ¹⁶⁹

George G. Kaufman, Federal Reserve Bank of Chicago (2000)

"Systemic risk refers to the possibility that the financial system as a whole might become unstable, rather than the health of individual market participants. Stable financial systems do not transmit or magnify shocks to the broader economy. A firm, person, government, financial utility, or policy might create systemic risk if (1) its failure causes other failures in a domino effect; (2) news about its assets signals that others with similar assets may also be distressed, called contagion; (3) it contributes to fire sales during price declines; or (4) its absence prevents other firms from using an essential service, called critical functions.

In this approach, systemic risk includes all potential sources of instability in the financial system, not just the failure of a single large firm. The <u>FSOC</u> then defines systemic risk by its negative, 'A stable financial system should not be the source of, nor amplify the impact of, shocks.'"¹⁷⁰ [Emphasis in original.]

Edward V. Murphy, Congressional Research Service (2012)

"Systemic risk can be thought of as a widespread failure of financial institutions or freezing up of capital markets that can substantially reduce the supply of capital to the real economy."171

Viral V. Acharya, Thomas Philippon, Matthew Richardson and Nouriel Roubini, New York University (2009)

"Some argue that even damage to the real economy is not sufficient grounds to classify an episode as systemic; rather, the key characteristic of systemic risk is the movement from one stable (positive) equilibrium to another stable (negative) equilibrium for the economy and financial system."172

Darryll Hendricks, John Kambhu, and Patricia Mosser, Federal Reserve Bank of New York (2006)

Appendix B: Task Force and the Process for Writing the Report

THE SYSTEMIC RISK TASK FORCE

The co-chairs of the Systemic Risk Task Force are:

- **John C. Dugan**, Partner, Covington & Burling LLP and former Comptroller of the Currency, U.S. Department of the Treasury;
- **Peter R. Fisher**, Senior Fellow of the Center for Global Business and Government, Tuck School of Business at Dartmouth and former Under Secretary for Domestic Finance, U.S. Department of the Treasury; and
- Cantwell F. Muckenfuss III, Partner, Gibson, Dunn & Crutcher LLP and former Senior Deputy Comptroller of the Currency, U.S. Department of the Treasury.

Special thanks to those connected with BPC's Financial Regulatory Reform Initiative who helped inform and guide us through this process, including: Co-Chairs **Martin Baily** and **Phillip Swagel**; BPC staff **Aaron Klein**, **Justin Schardin**, **Peter Ryan**, and **Shaun Kern**; and senior advisors **Jim Sivon**, partner with Barnett Sivon & Natter, PC, and **Greg Wilson**, Wilson Consulting.

BACKGROUND ON THE PROCESS FOR DEVELOPING THIS REPORT

The task force co-chairs developed its conclusions based on their extensive experience in federal regulation and supervision of financial institutions, as well as information-gathering sessions with a wide variety of public and private sectors experts, agencies, organizations, and individuals. The task force benefited greatly from these meetings, and the co-chairs are indebted to all who met with them. However, the co-chairs alone are responsible for the conclusions and recommendations in this report.

SYSTEMIC RISK SURVEY

In the summer of 2013, the task force disseminated a survey on systemic risk to a selected group of current and former regulators and supervisors, consumer and industry representatives, and academics. The aggregate responses to the survey do not reveal any scientific conclusions, but were useful in guiding the task force's questions and developing its ideas. The survey was also used as a starting point for discussion at the task force's

information-gathering sessions. The questions from online survey have been re-created below.

Question 1: How would you rate the following solutions in their likely impacts across each of the following four theories of systemic risk?

- 1. Strengthen institutions Efforts to make individual institutions safer and more able to withstand systemic events
- 2. Prevent spread of risky products & practices Efforts to prevent the spread of toxic products, practice, or actions from being adopted by a other institutions
- 3. Plug regulatory gaps Efforts to ensure systemically important institutions, categories of institutions, products, practices, or actions are not able to escape the regulatory system
- 4. Enhanced capacity to act Efforts to allow the government to more effectively respond to, and mitigate, financial crises that have begun

List of solutions:

- A. Creation of FSOC
- B. Creation of CFPB
- C. Creation of OFR
- D. Creation of Federal Insurance Office (FIO)
- E. Bank SIFI designation
- F. Non-bank SIFI designation authority
- G. Financial utility SIFI designation authority
- H. Higher equity capital requirements
- I. Collins Amendment
- J. Stress tests
- K. Basel III liquidity requirements
- L. Basel III leverage limits
- M. Limits on Fed and FDIC emergency authority
- N. Volcker Rule
- O. Lincoln Amendment
- P. Single counterparty credit exposure limits

- Q. Derivative exchange and clearing
- R. Credit risk retention rules
- S. Resolution authority
- T. Living wills
- U. Holding company debt requirements
- V. Provisions in Dodd-Frank to address credit rating agencies
- W. Product, activity, and practice limits

For each solution (A-W), respondents were asked to rate each as mostly good (1), more good than bad (2), a mixed bag (3), more bad than good (4), mostly bad (5), or too soon to tell (T). Respondents were asked to rate up to two theories of systemic risk for each solution.

Question 2: Please select up to five policies that you believe are most likely to have the greatest positive impact through decreasing systemic risk. [Same choices available, A-W]

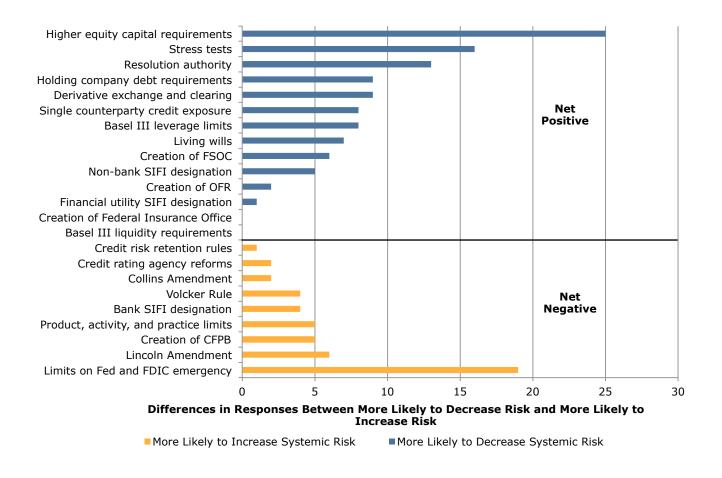
Question 3: Please select up to five policies that you believe are most likely to have the greatest negative impact through increasing systemic risk. [Same choices available, A-W]

Question 4: Are there any financial reform solutions that Congress should have addressed by did not?

Questions 5-8: Optional questions about name, company, e-mail address, occupational category, number of years worked in an occupation related to the financial services sector, and political affiliation.

The chart below aggregates the responses from questions 2 and 3. It depicts the number of times respondents thought that a solution was most likely to decrease systemic risk minus the number of times respondents thought that a solution was most likely to increase systemic risk.

Figure 6. Policies Identified by Survey Respondents as Most Likely to Affect Systemic Risk



Endnotes

http://bipartisanpolicy.org/sites/default/files/BPC%20Dodd-Frank%20Missed%20Opportunity.pdf.

¹ Dodd-Frank Wall Street Reform and Consumer Protection Act, Pub. L. No. 111-203, 111th Cong. Available at: http://www.gpo.gov/fdsys/pkg/PLAW-111publ203/html/PLAW-111publ203.htm.

² "Systemically important financial institution" or "SIFI" is not a term that is used in Dodd-Frank. Instead, it is a term used in common parlance and in this paper to refer to a firm that is subject to enhanced prudential standards established and applied by the Federal Reserve under sections 165 and 166 of the Act. A SIFI can be either (1) a bank holding company with greater than \$50 billion in assets-referred to in the paper as a "bank SIFI"; or (2) a U.S. nonbank financial company that is designated as requiring enhanced prudential standards established by the Federal Reserve—referred to in the paper as a "nonbank SIFI"—because of a determination by a two-thirds vote of the members of the Financial Services Oversight Council under section 113 of the Act that "material financial distress at [such a] U.S. nonbank financial company, or the nature, scope, size, scale, concentration, interconnectedness, or the mix of activities of the U.S. nonbank financial company, could pose a threat to the financial stability of the United States." See Dodd-Frank Act, Section 165 (a) (1).

³ Dodd-Frank Act, Section 113 (b) (1).

⁴ BPC has provided additional recommendations to Congress to improve the tools necessary to address systemic risk, including amending the Bankruptcy Code to make bankruptcy a more viable alternative to Dodd-Frank's new resolution authorities. See: John Bovenzi, Randall D. Guynn, and Thomas H. Jackson, "Too Big to Fail: The Path to a Solution," Bipartisan Policy Center, May 2013, pp. 33-5. Available at: http://bipartisanpolicy.org/sites/default/files/TooBigToFail.pdf. Separately, BPC has issued recommendations for improving the function of the CFPB, the implementation of the Volcker Rule regulations, and the U.S. financial regulatory architecture. See: Rick Fischer and Eric Rodriguez, "The Consumer Financial Protection Bureau: Measuring the Progress of a New Agency," Bipartisan Policy Center, September 2013. Available at: http://bipartisanpolicy.org/sites/default/files/BPC%20Consumer%20Financial%20Protection%20Bureau%20Report.pdf; James D. Cox, Jonathan R. Macey, and Annette L. Nazareth, "A Better Path Forward on the Volcker Rule and the Lincoln Amendment," Bipartisan Policy Center, October 2013. Available at: http://bipartisanpolicy.org/sites/default/files/files/A%20Better%20Path%20Forward%20on%20the%20Volcker%20Rule%20and%20the%20Lincoln%20Amendment_Final.pdf; and Richard H. Neiman and Mark Olson, "Dodd-Frank's Missed Opportunity," Bipartisan Policy Center, April 2014. Available at:

⁵ Dodd-Frank Act, Section 1101 (a).

⁶ See: Bovenzi, Guynn, and Jackson.

⁷ Alexander Mehra, "Legal Authority in Unusual and Exigent Circumstances: The Federal Reserve and the Financial Crisis," *University of Pennsylvania Journal of Business Law*, Vol. 13:1, p. 234. Available at: https://www.law.upenn.edu/journals/jbl/articles/volume13/issue1/Mehra13U.Pa.J.Bus.L.221(2010).pdf.

⁸ 12 CFR Part 370, Vol. 73, No. 229, November 26, 2008, p. 72244. Available at: http://www.fdic.gov/news/board/08BODtlgp.pdf.

⁹ Federal Deposit Insurance Corporation, "Temporary Liquidity Guarantee Program," last updated February 27, 2013. Available at: http://www.fdic.gov/regulations/resources/TLGP/index.html.

¹⁰ Dodd-Frank Act, Section 1106 (b) (1) (B).

¹¹ The FDIC defines open bank assistance (OBA) as, "a resolution method in which an insured bank in danger of failing receives assistance in the form of a direct loan, an assisted merger, or a purchase of assets. OBA usually entails a change in bank management and requires substantial dilution of shareholder interest in the troubled institution." See: FDIC Resolutions Handbook, Glossary. Available at: https://www.fdic.gov/bank/historical/reshandbook/glossary.pdf.

¹² Dodd-Frank Act, Section 1105 (a).

¹³ Ibid., Section 1104.

¹⁴ Ibid., Section 1105 (d).

¹⁵ Despite these safeguards, runs on commercial deposits can still happen. The 2007–2008 financial crisis was exacerbated by damaging runs on deposits at IndyMac, Wachovia, and Washington Mutual, for example.

¹⁶ For example, see: Daniel K. Tarullo, "Shadow Banking and Systemic Risk Regulation," speech at the Americans for Financial Reform and Economic Policy Institute Conference, November 22, 2013. Available at: http://www.federalreserve.gov/newsevents/speech/tarullo20131122a.htm. See also: William C. Dudley,

Welcoming Remarks at Workshop on the Risks of Wholesale Funding, Federal Reserve Bank of New York, August 13, 2014. Available at: http://www.ny.frb.org/newsevents/speeches/2014/dud140813.html.

- 17 See: 12 U.S.C. sections 371c and 371c-1. These are better known as sections 23A and 23B of the Federal Reserve Act.
- ¹⁸ See: Bovenzi, Guynn, and Jackson.
- ¹⁹ Dodd-Frank Act, Section 112 (a) (1).
- ²⁰ See: Ibid., Section 112 (a) (2) for a complete list of duties.
- ²¹ Ibid., Section 120.
- ²² Ibid., Section 112 (a) (2) (E).
- ²³ 12 U.S.C. Section 5343 (a) (1).
- ²⁴ Dodd-Frank Act, Section 165 (b) (3) (A).
- ²⁵ Ibid., Section 115 (a) (2) (A).
- ²⁶ Ibid., Section 165 (a) (2) (A).
- ²⁷ Dodd-Frank Wall Street Reform and Consumer Protection Act, Pub. L. No. 111-203, 111th Cong. Available at: http://www.gpo.gov/fdsys/pkg/PLAW-111publ203/html/PLAW-111publ203.htm.
- ²⁸ Staff of the International Monetary Fund, the Bank for International Settlements, and the Secretariat of the Financial Stability Board, "Guidance to Assess the Systemic Importance of Financial Institutions, Markets and Instruments: Initial Considerations," Report to the G-20 Finance Ministers and Central Bank Governors, October 2009, p. 2. Available at: http://www.financialstabilityboard.org/publications/r_091107c.pdf. A selection of definitions of systemic risk is included in Appendix A.
- ²⁹ Financial Crisis Inquiry Commission, "The Financial Crisis Inquiry Report: Final Report of the National Commission on the Causes of the Financial and Economic Crisis in the United States," February 25, 2011, p. 22. Available at: http://www.gpo.gov/fdsys/pkg/GPO-FCIC/pdf/GPO-FCIC.pdf.
- ³⁰ As of Q2 2013, these types of securities comprised 82 percent of the outstanding purchased securities in the triparty market. Such transactions are typically known as "traditional repos." See: BlackRock, "Understanding Repurchase Agreements." Available at: https://www.blackrock.com/cash/literature/whitepaper/understanding-repurchase-agreements.pdf.
- ³¹ Haircuts in the repo market typically range in size from 102 percent for the safest securities to 107 percent for riskier securities. In practice, this means that a repo in which the borrower receives \$980 million in cash might require collateral—in this case, likely in the form of U.S. Treasuries—equivalent to \$1 billion. See: Ibid., p. 5.
- ³² See: Arvind Krishnamurthy, Stefan Nagel, and Dmitry Orlov, "Sizing Up Repo," working paper, September 2008, p. 8. Available at: http://www.kellogg.northwestern.edu/faculty/krisharvind/papers/repo_aggregate.pdf. See also: Adam Copeland, Antoine Martin, and Michael Walker, "The Tri-Party Repo Market Before the 2010 Reforms," Federal Reserve Bank of New York Staff Reports, No. 477, November 2010. Available at: http://www.newyorkfed.org/research/staff_reports/sr477.pdf.
- ³³ Bilateral repos, also known as DvP (delivery versus payment), are also used for short-term funding purposes. Because clearing banks can usually provide intermediation services at lower cost, U.S. investors have generally favored tri-party transactions. See Ibid., pp. 4-6. See also: Bruce Tuckman, "Systemic Risk and the Tri-Party Repo and Clearing Banks," *CFS Policy Paper*, February 2, 2010, p. 4. Available at: https://www.stern.nyu.edu/sites/default/files/assets/documents/con_040111.pdf.
- ³⁴ See Copeland et al. for more.
- ³⁵ Copeland et al., p. 5.
- ³⁶ Brian Begalle, Antoine Martin, James McAndrews, and Susan McLaughlin, "The Risk of Fire Sales in the Tri-Party Repo Market," *Federal Reserve Bank of New York Staff Reports*, No. 616, May 2013. Available at: http://www.newyorkfed.org/research/staff_reports/sr616.pdf.
- ³⁷ See Copeland et al., pp. 5-6 for a general explanation.
- ³⁸ Ibid., p. 7.
- ³⁹ Ibid., pp. 6-7.
- ⁴⁰ Federal Reserve Bank of New York. "Tri-party Repo Statistical Data." Available at: http://www.newyorkfed.org/banking/tpr_infr_reform_data.html.
- 41 This data is provided by the Tri-Party Repo Infrastructure Reform Task Force, an industry group sponsored by the Federal Reserve Bank of New York.
- ⁴² Adam Copeland, Isaac Davis, Eric LeSueur, and Antoine Martin, "Mapping and Sizing the U.S. Repo Market," June 25, 2012. Available at: http://libertystreeteconomics.newyorkfed.org/2012/06/mapping-and-sizing-the-us-repo-market.html#.U87X07EjolR.

- ⁴³ Pre-2010 data obtained from Linda Fahy and Antoine Martin, "The Use of Tri-party Repo Market Data," Federal Reserve Bank of New York CPSS Workshop on Payment System Monitoring Indicators, October 9, 2012, slide13. Available at: http://www.bis.org/events/cpss_wspsmi/fahymartin_pres.pdf. Post 2010-data obtained from the Federal Reserve Bank of New York, "Tri-party Repo Statistical Data." Available at: http://www.newyorkfed.org/banking/tpr infr reform data.html.
- ⁴⁴ Gary Gorton and Andrew Metrick, "Securitized Banking and the Run on Repo," *NBER Working Paper*, No. 15223. Available at: http://www.nber.org/papers/w15223.pdf.
- ⁴⁵ Fahy and Martin, Ibid., slide 15.
- ⁴⁶ Copeland et al. (2010), pp. 57-58.
- ⁴⁷ See: Paul Friedman, "Testimony of Paul Friedman Before the Financial Crisis Inquiry Commission," May 5, 2010, for more on the role of repo runs in the effective collapse of Bear Stearns. Available at: http://fcic-static.law.stanford.edu/cdn_media/fcic-testimony/2010-0505-Friedman.pdf.
- 48 See: Copeland et al. (2010), pp. 55-61, for a detailed overview of the role of repo transactions in the collapse of Lehman Brothers.
- ⁴⁹ Even though Lehman Brothers' holding company filed for bankruptcy, its broker-dealer entity remained operational. The U.S. Bankruptcy Court approved the sale of that unit to Barclays on September 19, 2008. See: In re Lehman Brothers Holdings Inc., et. al. Debtors, Chapter 11 Case No. 08-13555 (JMP), U.S. Bankruptcy Court, Southern District of New York. Available at:

http://www.bankruptcylitigationblog.com/uploads/file/sale%20order.pdf.

- ⁵⁰ Darrell Duffie, *How Big Banks Fail and What to Do About It*, Princeton: Princeton University Press, Chapter 3.
- ⁵¹ Copeland et al. (2010), p. 28.
- ⁵² See: Bovenzi, Guynn, and Jackson, p. 16.
- ⁵³ Andreas Lehnert, "The History of Bank Runs: Lessons for 'Stable Funding," Federal Reserve Board, presentation to the Federal Reserve Bank of New York—Office of Financial Research Conference on Stable Funding, slide 4. Available at: http://www.newyorkfed.org/research/conference/2013/stable_funding/Presentation_Lehnert.pdf.
- ⁵⁴ Ibid., p. 17.
- ⁵⁵ Ibid., p. 251.
- ⁵⁶ Financial Crisis Inquiry Report, Ibid., p. 286.
- ⁵⁷ William C. Dudley, "Fixing Wholesale Funding to Build a More Stable Financial System," Remarks at the New York Bankers Association 2013 Annual Meeting & Economic Forum, February 1, 2013. Available at: http://www.newyorkfed.org/newsevents/speeches/2013/dud130201.html.
- ⁵⁸ Lloyd B. Thomas, *The Financial Crisis and Federal Reserve Policy*, Palgrave Macmillan, 2011.
- ⁵⁹ Mark A. Carlson and David C. Wheelock, Federal Reserve Bank of St. Louis, "The Lender of Last Resort, Lessons from the Fed's First 100 Years," November 2012, Revised February 2013, p. 9. Available at: http://research.stlouisfed.org/wp/2012/2012-056.pdf.
- ⁶⁰ Ibid., pp. 12-13.
- ⁶¹ Ibid., p. 22.
- ⁶² Ibid., p. 24.
- ⁶³ FDIC Division of Research and Statistics, "History of the Eighties—Lessons for the Future, Volume I: An Examination of the Banking Crises of the 1980s and Early 1990s," 1997, pp. 243-4. Available at: http://www.fdic.gov/bank/historical/history/235_258.pdf.
- ⁶⁴ Carlson and Wheelock, p. 30.
- ⁶⁵ Eric S. Rosengren, "Our Financial Structures—Are They Prepared for Financial Instability?" Figure 7, remarks: by Eric S. Rosengren, president and CEO, Federal Reserve Bank of Boston. Available at: http://www.bostonfed.org/news/speeches/rosengren/2012/062912/index.htm.
- ⁶⁶ "Central banks need to 'keep up' with markets says Mark Carney," *Financial Times*, October 24, 2013. Available at: http://www.ft.com/cms/s/0/964e77da-3cca-11e3-a8c4-00144feab7de.html.
- ⁶⁷ 12 CFR Part 370, Vol. 73, No. 229, November 26, 2008, p. 72244. Available at: http://www.fdic.gov/news/board/08BODtlgp.pdf.
- ⁶⁸ The program also temporarily guaranteed the full value of noninterest-bearing transaction accounts and certain other accounts.
- ⁶⁹ Federal Deposit Insurance Corporation, "Temporary Liquidity Guarantee Program," last updated February 27, 2013. Available at: http://www.fdic.gov/regulations/resources/TLGP/index.html.
- 70 Dodd-Frank Act, Section 1106 (b) (1) (B).

- ⁷¹ The FDIC defines open bank assistance (OBA) as, "a resolution method in which an insured bank in danger of failing receives assistance in the form of a direct loan, an assisted merger, or a purchase of assets. OBA usually entails a change in bank management and requires substantial dilution of shareholder interest in the troubled institution." See: FDIC Resolutions Handbook, Glossary. Available at: https://www.fdic.gov/bank/historical/reshandbook/glossary.pdf.
- ⁷² The TAG program guaranteed in full all domestic noninterest-bearing transaction deposits, low-interest NOW accounts, and Interest on Lawyers Trust Accounts (IOLTAs) held at participating banks and thrifts through December 31, 2009. See: Federal Deposit Insurance Corporation, "Temporary Liquidity Guarantee Program," Ibid.
 ⁷³ Thid
- ⁷⁴ This date was later revised, with the agency providing guarantees to debt issued on or before October 31, 2009, and extending guarantees to include convertible bonds. See: Brent W. Ambrose, Yiying Cheng, and Tao-Hsien Dolly King, "Financial Crisis and Temporary Liquidity Guarantee Program: Their Impact on Fixed-Income Markets," *Journal of Fixed Income*, Fall 2013, Vol. 23, No. 2, pp. 5-26, p.6. Available at:

http://belkcollegeofbusiness.uncc.edu/ycheng8/Research/FDIC%20liquidity%20Ambrose%20Cheng%20King.pdf.

- ⁷⁴ American Banker, "FDIC Program Proves as Good as Tarp, Without the Baggage," April 26, 2012. Available at http://www.americanbanker.com/issues/177_81/crisis-fdic-tlgp-tarp-debt-guarantee-bailout-1048795-1.html.
- 75 Ibid.
- ⁷⁶ Federal Deposit Insurance Corporation, "TLGP Debt Guarantee Program: Issuer Reported Debt Details." Available at: http://www.fdic.gov/regulations/resources/tlgp/total_debt.html.
- ⁷⁷ Ambrose et al., p. 31.
- ⁷⁸ Ibid., p. 11.
- ⁷⁹ Ibid., p. 5.
- 80 Federal Deposit Insurance Corporation, "Temporary Liquidity Guarantee Program," Ibid.
- ⁸¹ TARP was included in the Emergency Economic Stabilization Act of 2008, Pub. L. 110-343, 110th Cong. Available at: http://www.gpo.gov/fdsys/pkg/PLAW-110publ343/pdf/PLAW-110publ343.pdf.
- 82 Ibid., Section 115 (a).
- 83 Ibid., Section 101 (a) (1).
- ⁸⁴ TARP's capital purchase program has collected \$29.5 billion more than it invested. See: http://www.treasury.gov/initiatives/financial-stability/TARP-Programs/bank-investment-programs/Pages/default.aspx.
- ⁸⁵ Federal Deposit Insurance Corporation, "Emergency Economic Stabilization Act of 2008 Temporarily Increases Basic FDIC Insurance Coverage from \$100,000 to \$250,000 Per Depositor," press release, October 7, 2008. Available at: http://www.fdic.gov/news/news/press/2008/pr08093.html.
- 86 Dodd-Frank Act, Section 335 (a) (1).
- ⁸⁷ New York Times/CBS poll, September 19-23, 2013, p. 14. Available at: http://www.nytimes.com/interactive/2013/09/26/us/politics/26poll-results.html?_r=0.
- 88 Ibid.
- ⁸⁹ Pew Research, Center for the People & the Press, "Five Years after Market Crash, U.S. Economy Seen as 'No More Secure,'" September 12, 2013. Available at: http://www.people-press.org/2013/09/12/five-years-after-market-crash-u-s-economy-seen-as-no-more-secure/.
- ⁹⁰ Pro Publica's Bailout Tracker (Paul Kiel and Dan Nguyen), for example details outflows of \$611.8 billion spent, invested, or loaned by the federal government through TARP and the bailouts of Fannie Mae and Freddie Mac during the financial crisis, and \$653.2 billion returned and paid to the Treasury as interest, dividends, fees, or to repurchase stock warrants, as of August 12, 2014. Available at: http://projects.propublica.org/bailout/.
- ⁹¹ Pew Research, Center for the People & the Press, "Public Knows Basic Facts About Politics, Economics, But Struggles with Specifics," November 10, 2010. Available at: http://www.people-press.org/files/legacy-pdf/677.pdf.
- 92 See: Bovenzi, Guynn, and Jackson, p. 48.
- ⁹³ "Systemically important financial institution" or "SIFI" is not a term that is used in Dodd-Frank. Instead, it is a term used in common parlance and in this paper to refer to a firm that is subject to enhanced prudential standards established and applied by the Federal Reserve under sections 165 and 166 of the Act. A SIFI can be either (1) a bank holding company with greater than \$50 billion in assets-referred to in the paper as a "bank SIFI"; or (2) a U.S. nonbank financial company that is designated as requiring enhanced prudential standards established by the Federal Reserve—referred to in the paper as a "nonbank SIFI"—because of a determination by a two-thirds vote of the members of the Financial Services Oversight Council under section 113 of the Act that "material financial distress at [such a] U.S. nonbank financial company, or the nature, scope, size, scale, concentration.

interconnectedness, or the mix of activities of the U.S. nonbank financial company, could pose a threat to the financial stability of the United States." See Dodd-Frank Act, Section 165 (a) (1). 94 Ibid., Section 113 (b) (1). 95 BPC has provided additional recommendations to Congress to improve the tools necessary to address systemic risk, including amending the Bankruptcy Code to make bankruptcy a more viable alternative to Dodd-Frank's new resolution authorities. See: John Bovenzi, Randall D. Guynn, and Thomas H. Jackson, "Too Big to Fail: The Path to a Solution," Bipartisan Policy Center, May 2013, pp. 33-5. Available at: http://bipartisanpolicy.org/sites/default/files/TooBigToFail.pdf. Separately, BPC has issued recommendations for improving the function of the CFPB, the implementation of the Volcker Rule regulations, and the U.S. financial regulatory architecture. See: Rick Fischer and Eric Rodriguez, "The Consumer Financial Protection Bureau: Measuring the Progress of a New Agency," Bipartisan Policy Center, September 2013. Available at: http://bipartisanpolicy.org/sites/default/files/BPC%20Consumer%20Financial%20Protection%20Bureau%20Report. pdf; James D. Cox, Jonathan R. Macey, and Annette L. Nazareth, "A Better Path Forward on the Volcker Rule and the Lincoln Amendment," Bipartisan Policy Center, October 2013. Available at: http://bipartisanpolicy.org/sites/default/files/files/A%20Better%20Path%20Forward%20on%20the%20Volcker%20Rule%20and%20the%20Lincoln%20Amendment_Final.pdf; and Richard H. Neiman and Mark Olson, "Dodd-Frank's Missed Opportunity," Bipartisan Policy Center, April 2014. Available at: http://bipartisanpolicy.org/sites/default/files/BPC%20Dodd-Frank%20Missed%20Opportunity.pdf 96 Dodd-Frank Act, Section 1101 (a). 97 12 U.S.C., Section 5322 (a) (1). 98 12 U.S.C., Section 5343 (a). 99 12 U.S.C., Section 5323 (a) (1). 100 12 U.S.C., Section 5329 (a). ¹⁰¹ 12 U.S.C., Section 5329 (d). ¹⁰² 12 U.S.C., Section 5330 (a). ¹⁰³ 12 U.S.C., Section 5330 (c) (2). 104 Dodd-Frank Act, Section 153 (c). ¹⁰⁵ Ibid., Section 154 (b) (1) (B). ¹⁰⁶ Ibid., Section 154 (b) (6). ¹⁰⁷ For a more detail analysis of the changes Dodd-Frank made to the U.S. financial regulatory architecture, see: Neiman and Olson. ¹⁰⁸ Martin Neil Baily, Robert E. Litan, and Matthew S. Johnson, "The Origins of the Financial Crisis," Initiative on Business and Public Policy at the Brookings Institution, November 2008, pp. 8, 16. Available at: http://www.brookings.edu/~/media/research/files/papers/2008/11/origin%20crisis%20baily%20litan/11 origins c risis baily litan.pdf. ¹⁰⁹ Financial Crisis Inquiry Report, Ibid., pp. 350-2. ¹¹⁰ Dodd-Frank Act, Section 171. 111 Stijn Claessens and Laura Kodres, "The Regulatory Responses to the Global Financial Crisis: Some Uncomfortable Questions," International Monetary Fund Working Paper, March 2014, p. 30. Available at: http://www.imf.org/external/pubs/ft/wp/2014/wp1446.pdf. 112 See Bovenzi, Guynn, and Jackson. ¹¹³ Alexander Mehra, "Legal Authority in Unusual and Exigent Circumstances: The Federal Reserve and the Financial Crisis," University of Pennsylvania Journal of Business Law, Vol. 13:1, p. 234. Available at: https://www.law.upenn.edu/journals/jbl/articles/volume13/issue1/Mehra13U.Pa.J.Bus.L.221(2010).pdf. 114 Dodd-Frank Act, Section 1101 (a) (6) (C)-(D). ¹¹⁵ Ibid., p. 15. 116 Ibid., Section 1106 (b) (1) (B). ¹¹⁷ Ibid., Section 1105 (a). 118 Ibid., Section 1104. 119 Ibid., Section 1105 (d).

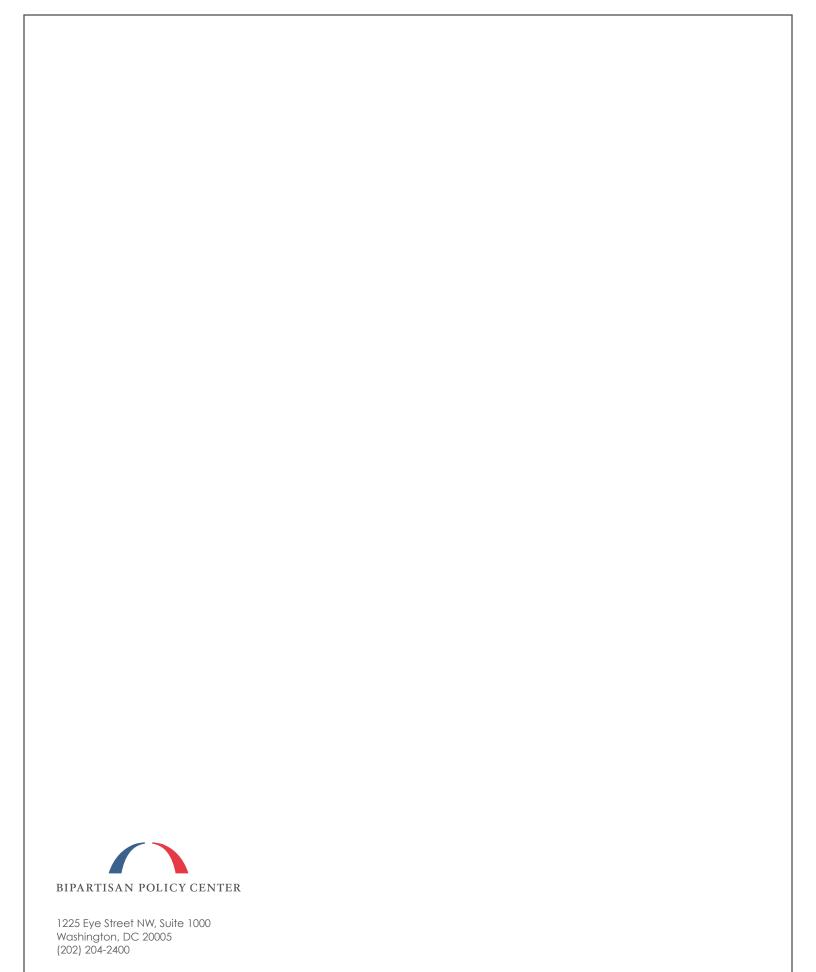
120 Ibid., Section 1104 (a).121 Ibid., Section 1104 (b).

122 Ibid., Section 1104 (a) (2) (B).

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123 Ibid., Section 1105 (a).
124 Ibid., Section 1105 (b).
<sup>125</sup> Ibid., Section 1105 (c).
<sup>126</sup> Ibid., Section 1105 (e) (2).
<sup>127</sup> For example, see: Daniel K. Tarullo, "Shadow Banking and Systemic Risk Regulation," speech at the Americans
for Financial Reform and Economic Policy Institute Conference, November 22, 2013. Available at:
http://www.federalreserve.gov/newsevents/speech/tarullo20131122a.htm. See also: William C. Dudley,
Welcoming Remarks at Workshop on the Risks of Wholesale Funding, Federal Reserve Bank of New York, August
13, 2014. Available at: http://www.ny.frb.org/newsevents/speeches/2014/dud140813.html.
128 See: 12 U.S.C. sections 371c and 371c-1. These are better known as sections 23A and 23B of the Federal
Reserve Act.
<sup>129</sup> See: Bovenzi, Guynn, and Jackson.
Olivier Armantier, Eric Ghysels, Asani Sarkar, and Jeffrey Shrader, "Discount Window Stigma during the 2007-2008 Financial Crisis," Federal Reserve Bank of New York Staff Report No. 483, January 2011, revised September
2013, pp. 24-5. Available at: http://www.newyorkfed.org/research/staff_reports/sr483.pdf.
131 Dodd-Frank Act, Section 112 (a) (1).
<sup>132</sup> See: Ibid., Section 112 (a) (2) for a complete list of duties.
133 Ibid., Section 120.
<sup>134</sup> Ibid., Section 112 (a) (2) (E).
<sup>135</sup> 12 U.S.C. Section 1851 (b) (2) (A).
<sup>136</sup> 12 U.S.C. Section 1851 (c) (1).
<sup>137</sup> See: Martin Baily, John Coffee, Jim Cox, Annette Nazareth, Jonathan Macey, and Phillip Swagel, letter to Tim
Geithner, Thomas Curry, Ben Bernanke, Martin Gruenberg, Elisse Walter, and Gary Gensler, December 20, 2012.
Available at: http://bipartisanpolicy.org/sites/default/files/Volcker%20Letter%20Final 0.pdf.
138 Dodd-Frank Act, Section 112 (a) (2) (E).
139 Ibid., Section 119.
140 Ibid., Section 120 (a).
141 Securities and Exchange Commission, "SEC Adopts Money Market Fund Reform Rules," press release and fact
sheet, July 23, 2014. Available at:
http://www.sec.gov/News/PressRelease/Detail/PressRelease/1370542347679#.U9lIefldUvk.
<sup>142</sup> U.S. Department of Housing and Urban Development Office of Policy Development and Research, "Report to
Congress on the Root Causes of the Foreclosure Crisis," January 2010, pp. 33-34. Available at:
http://www.huduser.org/publications/pdf/foreclosure_09.pdf.
<sup>143</sup> 12 U.S.C. Section 5344 (b) (1) (B) (iii).
<sup>144</sup> 12 U.S.C. Section 5344 (b) (2) (A) (ii).
<sup>145</sup> 12 U.S.C. Section 5344 (b) (2) (A) (iii).
<sup>146</sup> 12 U.S.C. Section 5343 (a) (1).
<sup>147</sup> Federal Open Market Committee, Minutes, January 28-29, 2014. Available at:
http://www.federalreserve.gov/monetarypolicy/fomcminutes20140129.htm.
<sup>148</sup> Dodd-Frank Act, Section 165 (b) (3) (A).
<sup>149</sup> Ibid., Section 165 (a) (2) (A).
<sup>150</sup> Ibid., Section 115 (a) (2) (A).
151 Dodd-Frank Act, Section 115 (b) (3).
<sup>152</sup> 12 U.S.C. Section 5365 (b) (3) (A).
<sup>153</sup> Victoria Craig, "Janet Yellen Talks Disappointing Data, Weather on Capitol Hill," Fox Business, February 27,
2014. Available at: http://www.foxbusiness.com/economy-policy/2014/02/27/janet-yellen-talks-dissapointing-
```

- ¹⁵⁴ Daniel K. Tarullo, "Final rules to implement the enhanced prudential standards of section 165 of the Dodd-Frank Act," memorandum to the Board of Governors of the Federal Reserve System, February 7, 2014. Available at: http://www.federalreserve.gov/aboutthefed/boardmeetings/memo 20140218.pdf.
- 155 Dodd-Frank Act, Section 171.
- 156 12 U.S.C. Section 5371 (b) (1). Section 5371 (b) contains additional minimum capital requirements.

- ¹⁵⁷ Susan Collins, "Finding the Right Capital Regulations for Insurers," statement to the Subcommittee on Financial Institutions and Consumer Protection of the Senate Committee on Banking, Housing, and Urban Development, March 11, 2014. Available at: http://www.collins.senate.gov/public/index.cfm/2014/3/finding-the-right-capital-regulations-for-insurers.
- ¹⁵⁸ Dodd-Frank Act, Section 112.
- ¹⁵⁹ 12 U.S.C. Section 5322 (a) (2) (I).
- ¹⁶⁰ 12 U.S.C. Section 5322 (a) (2) (K).
- ¹⁶¹ 12 U.S.C. Section 5322 (a) (2) (F).
- ¹⁶² 12 U.S.C. Section 5330.
- ¹⁶³ 12 U.S.C. Section 5365 (b) (1) (A) (i).
- ¹⁶⁴ Financial Stability Oversight Council, "2011 FSOC Annual Report," 2011, p. 132. Available at: http://www.treasury.gov/initiatives/fsoc/Documents/FSOCAR2011.pdf.
- ¹⁶⁵ Financial Stability Board, "Guidance to Assess the Systemic Importance of Financial Institutions, Markets and Instruments: Initial Consideration," Report to the G-20 Finance Ministers and Central Bank Governors, October 2009, p. 2. Available at: http://www.imf.org/external/np/g20/pdf/100109.pdf.
- ¹⁶⁶ Jim Sivon and Greg Wilson, "Systemic Risk Implementation: Recommendations to the Financial Stability Oversight Council and the Office of Financial Research," Report to the Trustees of the Cluff Fund, September 10, 2010, pp. 4-5. Available at: http://www.bsnlawfirm.com/news/SystemicReportFINAL-NEW.pdf.
- ¹⁶⁷ Basel Committee on Banking Supervision, "Global Systematically Important Banks: Assessment Methodology and the Additional Loss Absorbency Requirement," July 2011, pp. 1-3. Available at: http://www.bis.org/publ/bcbs201.pdf.
- ¹⁶⁸ European Central Bank, "Financial Networks and Financial Stability," Financial Stability Review, June 2010, p. 155. Available at: http://www.lse.ac.uk/fmg/events/conferences/past-conferences/2011/systemicRisk_24-25]an2011/PHartmann_Paper2.pdf.
- ¹⁶⁹ George G. Kaufman, Federal Reserve Bank of Chicago, "Banking and Currency Crises and Systemic Risk: Lessons from Recent Events," September 2000, p. 14. Available at: https://www.chicagofed.org/digital_assets/publications/economic_perspectives/2000/3qep2.pdf.
- ¹⁷⁰ Edward V. Murphy, Congressional Research Service, "What Is Systemic Risk? Does It Apply to Recent JP Morgan Losses?" May 2010, pp. 1-2. Available at: http://fas.org/sqp/crs/misc/R42545.pdf.
- ¹⁷¹ Viral Acharya, Thomas Philippon, Matthew Richardson, and Nouriel Roubini, "The Financial Crisis of 2007-2009: Causes and Remedies," New York University Salomon Center for the Study of Financial Institutions, February 18, 2009, p. 1. Available at: http://dev3.cepr.org/meets/wkcn/1/1716/papers/prol.pdf.
- ¹⁷² Darryll Hendricks, John Kambhu, and Patricia Mosser, "Systemic Risk and the Financial System Background Paper," Federal Reserve Bank of New York, May 2006, p. 2. Available at: https://www.newyorkfed.org/registration/research/risk/background.pdf.



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