



Financial Stability Oversight Council: A Framework to Mitigate Systemic Risk

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Summary

The Financial Stability Oversight Council (FSOC) was created by the Dodd-Frank Act (DFA) in 2010 as part of a comprehensive reform of banking and securities market regulators. The council is charged with monitoring systemic risk in the financial system and coordinating several federal financial regulators. Because the agency is new and because several potential risks remain to the financial system as a whole, the 112th Congress may wish to monitor the performance, rulemaking, and policy recommendations of the council.

This report describes the mission, membership, and scope of the FSOC. It provides an analysis of several major policy issues related to the FSOC that may come before the 112th Congress.

The DFA establishes a regulatory framework of which the FSOC is a consultative council. The new regulatory regime incorporates several policy tools to address systemic risk. The FSOC facilitates communication among financial regulators, collects and evaluates financial data to monitor systemic risk, and designates which financial institutions and financial market utilities will be subject to prudential regulation by the Federal Reserve. Upon a determination of a threat to financial stability, a covered non-bank financial institution in danger of failing may under certain conditions be resolved by the Federal Deposit Insurance Corporation (FDIC), rather than through the bankruptcy process. The FSOC may under certain circumstances set aside some financial regulations for consumers if the rules create systemic risk.

The DFA directed financial regulators to issue new regulations to mitigate systemic risk and required regulators to study other areas of concern. Examples include proposed or final rules for financial derivatives, clearinghouses, retained risk, and financial market utilities. The DFA mandates more than 80 studies and reports, including the potential use of contingent capital and reliance on the bankruptcy process as a resolution regime.

The Office of Financial Research (OFR), created to support the work of the FSOC, has contributed to the first annual report by the FSOC. The OFR assessed a number of areas of concern, including the European sovereign debt crisis, continuing weakness in housing markets, and potential illiquidity in municipal finance.

This report is intended to be used as a reference by congressional staff working on financial issues. The macroeconomic policy rationales for various financial crisis-related issues are summarized, and a glossary is provided to assist in understanding technical terms. This report is not intended to be read from cover to cover, but instead may be more useful as issues related to the FSOC arise.

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Introduction: The Regulation of Bank and Non-Bank Financial Institutions

In 2010, the Dodd Frank Wall Street Reform and Consumer Protection Act (P.L. 111-203, 124 Stat 1394), also known as the Dodd-Frank Act (DFA), established a new regulatory framework to address financial market instability. Included in that framework was the creation of the Financial Stability Oversight Council (FSOC), which is composed of the heads of the agencies that regulate financial institutions and markets. **Table 1** lists the member agencies. The FSOC has its own permanent staff in the newly created Office of Financial Research (OFR) that collects data on the financial system and provides information and technical expertise to the FSOC. OFR is housed within the Department of Treasury and currently funded through the Federal Reserve, eventually intending to fund itself through assessments on systemically important firms.

The FSOC is expected to facilitate communication among existing financial regulators intending to identify sources of financial instability that cross agency regulatory jurisdiction, or that reside in gaps in the financial regulatory framework. Congressional staff may be interested in the organization, actions, and assessments of the FSOC, especially if a systemic financial event were to occur, a covered non-bank financial institution were to fail, and when the Secretary of the Treasury offers required testimony to Congress.

Table 1. Membership of the Financial Stability Oversight Council

Voting Members (Heads of)	Non-Voting Members
Department of the Treasury	Office of Financial Research (OFR)
Federal Reserve Board (FRB or the Fed)	Federal Insurance Office
Office of the Comptroller of the Currency (OCC)	A state insurance commissioner
Consumer Financial Protection Bureau (CFPB)	A state bank supervisor
Securities and Exchange Commission (SEC)	A state securities commissioner
Federal Deposit Insurance Corporation (FDIC)	
Commodity Futures Trading Commission (CFTC)	
Federal Housing Finance Agency (FHFA)	
National Credit Union Administration (NCUA)	
Insurance expert (Appointed by the President)	

Source: P.L. 111-203 §111(b)

The FSOC was created to address some of the perceived regulatory weaknesses that may have contributed to the magnitude of the financial crisis of 2008. These perceived weaknesses included identification of risks to the financial system as a whole; lack of coordination among financial regulators; inadequate supervision of large, complex financial institutions; and instabilities that might result from the failure or bankruptcy of a non-bank financial institution. The FSOC provides a common forum for financial regulators to evaluate and address risks to the stability of the financial system, including systemic risks that might emanate from less regulated non-bank financial institutions. The FSOC has the ability to classify (or “designate” as used in the law and

this report) certain non-banks as systemic, and therefore subject to prudential supervision by the Federal Reserve and resolution by the Federal Deposit Insurance Corporation (FDIC).

The DFA establishes a regulatory framework of which the FSOC is a consultative council. The new regulatory regime has six basic policy tools with which to pursue its mission.

1. **Coordination.** The council facilitates communication among the heads of financial regulators.
2. **Data collection and evaluation.** The FSOC has a permanent staff with the ability to gather confidential financial information and the staff of the OFR are to be experts in the financial field.
3. **Prudential regulation of certain non-banks.** The FSOC establishes the criteria and designates which firms will be subject to additional prudential regulation by the Federal Reserve, including capital requirements, asset tests, and similar safety and soundness regulations.
4. **Safety and Soundness Regulation of certain Financial Market Utilities.** The FSOC establishes the criteria and designates which financial market utilities be subjected to safety and soundness regulation.
5. **Resolution of non-banks.** Upon a determination of a threat to financial stability, a covered non-bank in danger of failing may under certain conditions be resolved by the FDIC rather than through the bankruptcy process.
6. **Evaluation of rules for consumer financial protection.** The FSOC may set aside some financial regulations for consumers if the rules might cause systemic risk, under certain circumstances.

Banks and Non-Banks in Financial Turmoil

The distinction between depository banks and non-bank financial firms is important to understanding the FSOC because many of the new powers attempt to create a regulatory and resolution regime for non-banks that is similar to the way depository banks are handled.

The term *bank*, in this context, generally refers to financial institutions that make loans and raise a large proportion of their funds through insured deposits. Insured depository banks have prudential regulators who monitor their assets and liabilities, including the ability to prevent concentrations in particular types of loans or reliance on particular funding sources. Prudential regulators of banks coordinate through the Federal Financial Institutions Examinations Council (FFIEC). Resolution of failing depository banks is done administratively by the FDIC, not through the bankruptcy courts. Banks generally have access to liquidity facilities, such as the Federal Reserve discount window.¹

The term *non-bank* refers to financial institutions that do not rely on deposits for their funding. Prior to the financial crisis of 2008, investment banks, such as Bear Stearns and Lehman Brothers, were examples of large, complex, non-bank financial institutions, even though in some cases they may have had relatively small subsidiaries that accepted deposits (technically

¹ For more information, see CRS Report RL34427, *Financial Turmoil: Federal Reserve Policy Responses*, by Marc Labonte.

“thrifts”). The insurance company American International Group (AIG) is another example of a large non-bank financial institution that had a relatively small subsidiary that accepted deposits. Authority to regulate non-bank thrifts and their holding companies had resided in the Office of Thrift Supervision (OTS). Some non-banks accepted prudential regulation by the Securities and Exchange Commission (SEC).² Bankruptcy courts were to handle failures among most other non-banks. The government-sponsored enterprises (GSEs), Fannie Mae and Freddie Mac, are large, complex financial institutions that did not accept deposits, but had their own prudential regulatory regime under the Office of Federal Housing Enterprise Oversight (now the Federal Housing Finance Agency, or FHFA).

As then-Federal Reserve Governor Donald Kohn evaluated lessons from the financial crisis, “We [the Fed] traditionally have provided backup liquidity to sound depository institutions. But in the crisis, to support financial markets, we had to provide liquidity to non-bank financial institutions as well.”³ In common parlance, people have sometimes referred to “too-big-to-fail” firms (TBTF), but what is typically meant are complex and interconnected financial institutions that may not rely on deposits for a large share of their funding, and whose failure may spread and magnify losses throughout the financial system – rather than absolute firm size. Governor Kohn expressed frustration for the perceived inadequacy of existing tools to deal with TBTF non-banks.

Recent Financial Turmoil and Response Overview

Dissatisfaction with existing regulation grew with the progression of the mortgage crisis that began in August 2007, especially following extraordinary government support related to the failure of several large non-banks. Some of this support was designed to prevent some creditors of failing non-banks from protracted uncertainty in the bankruptcy courts or other resolution process. Similarly, for some qualified financial contracts, support may have been designed so that some creditors would not suffer losses in the bankruptcy process.⁴ For example, in March 2008, losses on mortgage-related securities caused the distress sale of investment bank Bear Stearns. The Federal Reserve provided financial support for the purchase of Bear Stearns, avoiding the bankruptcy courts. In July 2008, the GSEs, Fannie Mae and Freddie Mac, had trouble raising additional capital. Policymakers tried unsuccessfully to enhance investor confidence by pledging financial support for the GSEs. Despite this pledge, in September 2008, Fannie Mae and Freddie Mac were placed in conservatorship in September with explicit financial support from Treasury. Lehman Brothers failed shortly thereafter, and declared bankruptcy when no firm was willing to purchase the investment bank without additional public support, which was not forthcoming. AIG, one of the world’s largest insurers, would have failed the day after Lehman Brothers. However,

² Prudential regulation under the SEC’s Consolidated Supervised Entities program was voluntarily accepted by some U.S. non-depositories in response to proposals by European bank regulators to regulate U.S. firms that did not have comparable prudential regulation. A senior advisor to the SEC testified to the FCIC that he believed that the SEC had sufficient legal authority to regulate Bear Stearns’s leverage ratio and balance sheet. Financial Crisis Inquiry Commission, *The Financial Crisis Inquiry Report*, Washington, DC, January 2011, p. 283, <http://www.gpoaccess.gov/fcic/fcic.pdf>.

³ Donald L Kohn, “The Federal Reserve’s Policy Actions during the Financial Crisis and Lessons for the Future,” Speech, Carleton University, Ottawa, Canada, Board of Governors of the Federal Reserve System, 13 May 2010, available at <http://www.federalreserve.gov/newsevents/speech/kohn20100513a.htm>.

⁴ A qualified financial contract is a term of art for certain financial contracts, including derivatives, that are executed and netted immediately upon declaration of bankruptcy. Therefore, uncertainty is probably not the primary concern for these particular financial contracts.

the Federal Reserve subsequently intervened on behalf of AIG, in this case avoiding a bankruptcy process.

Following the declaration of bankruptcy by Lehman Brothers, financial panic spread to other non-bank institutions and markets, with runs on money market mutual funds and repurchase agreements (also known as “repos”). Treasury offered a temporary guarantee program for money market mutual funds. In fall of 2008, Congress provided Treasury with up to \$700 billion to address troubled assets (such as mortgages) in the financial system. Despite these interventions to recapitalize and restore confidence in financial institutions, damage to the broader economy (as measured by unemployment and lost output) has been severe.

Following a year and a half of hearings and investigations, in the summer of 2010, Congress passed the DFA to reform the financial regulatory system. For banks that accept deposits insured by the FDIC, technically “insured depositories,” the general prudential regulatory approach and resolution regimes were relatively unchanged, although two regulators of depositories were combined. For large, complex non-banks, the DFA instructs the FSOC to identify which firms are systemically important, designates the Federal Reserve as the prudential regulator of these firms, and authorizes the FDIC to resolve covered non-banks outside the bankruptcy courts under certain circumstances. Under the DFA, policymakers have tried to construct resolution regimes for both banks and non-bank financial firms that will dispel investor expectations that some firms are too big to fail (i.e., that policymakers will be unwilling to let the firms fail because of potential collateral damage caused by resorting to the bankruptcy process). The following sections provide more detail on the mission, members, rulemaking, staffing, and recommendations of the FSOC during the 112th Congress.

This report will discuss the FSOC’s mission and issues it is intended to address in section I, the members and their roles in section II, and the progress on the creation of the Office of Financial Research in section III. Section IV will describe significant issues in mandatory rulemaking, including a summary of policy rationales for issues areas of the DFA. Section V will analyze the perceived threats to financial stability as identified in law and by the FSOC, and section VI will briefly describe FSOC recommendations from the 2011 FSOC annual report.

I. Financial Stability Oversight Council Mission

Section 112 of DFA lists three purposes of the FSOC: (1) *identify risks* to the financial system that may arise from large, complex financial institutions; (2) *promote market discipline* by reducing expectations of federal financial support for failing institutions; and (3) *respond to emerging threats* to the stability of the U.S. financial system. Items (1) and (2) are arguably directed at minimizing the chances that particular firms will be viewed as too big to fail, or too connected to fail, or otherwise pose risks to the financial system. Item (3) is arguably a more general catch-all for any factors that might destabilize the financial system.

In instructing the FSOC to promote financial stability, the DFA uses the terms *financial stability* and *systemic risk* in several places. For example, Section 112 directs member agencies of the FSOC to state in writing whether the agency believes that all reasonable steps are being taken “...to ensure financial stability and to mitigate systemic risk that would negatively affect the economy.” However, the DFA does not define the terms *financial stability* or *systemic risk*.

Financial Stability

Although the DFA does not define financial stability, the FSOC 2011 annual report describes some essential features of stable financial systems. “A stable financial system should not be the source of, nor amplify the impact of, shocks.”⁵ According to its annual report, the FSOC believes that there are three main risks that a financial system might transmit shocks: (1) failure of a financial institution or a market participant to honor a contractual obligation, (2) deterioration in market functioning, and (3) disruptions in financial infrastructure.⁶ The FSOC is to help avoid financial activities, practices, and regulations that might spread or magnify shocks to the financial system.

Systemic Risk

There is no single, commonly accepted definition of the term systemic risk among financial professionals. The FSOC annual report addresses the definition of systemic risk as follows: “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.”⁷ Possible features of systemic risks include externalities and the fallacy of composition. With externalities, there are costs or benefits of actions by financial market participants that are not borne by those participants. With fallacies of composition, what is true for each individual firm in isolation may not be true when all firms follow similar strategies—just as one person standing in a crowded stadium sees better, that strategy will fail if everyone stands at the same time.

Channels of Risk Proliferation

To better analyze whether the FSOC’s approach addresses commonly understood channels of risk proliferation, one might examine central bankers’ views of ways that failing firms can damage financial stability. In 2011, Federal Reserve Governor Daniel Tarullo identified four such ways that in his view are most common.⁸ They are as follows:

- **Domino effects** occur when the failure of one firm causes its creditors to fail, which causes the creditors’ creditors to fail, and so on.
- **Fire sales** may become reinforcing when a product serves as the collateral to finance itself or in markets in which participants must post risk-based margin. Fire sales may become self reinforcing if failure to pay causes lenders to seize the collateral (the good itself), sell it at distressed prices, and thereby cause further losses on other holders of the asset. These holders may then default on their loans or fail to post margin.

⁵ Financial Stability Oversight Council, *Annual Report*, Washington, DC, July 26, 2011, p. 3, available at <http://www.treasury.gov/initiatives/fsoc/Pages/annual-report.aspx>.

⁶ *Ibid.* p.131.

⁷ *Ibid.* p.132.

⁸ Governor Daniel K. Tarullo, “Regulating Systemic Risk,” Speech, 2011 Credit Markets Symposium, North Carolina, Charlotte, March 31, 2011, Board of Governors of the Federal Reserve System, available at <http://www.federalreserve.gov/newsevents/speech/tarullo20110331a.htm>.

- **Contagion** can occur if the failure of one firm is a signal to investors that firms in the same industry or with similar assets are likely to be in financial trouble. Contagion can result in the restriction of liquidity to other firms as possible counterparties shy away.
- **The failure of critical functions** can cause systemic risk if a firm provides a unique financial service with no close substitutes. For example, if a clearinghouse has a monopoly on settlement services for a market, and the clearinghouse fails, then other market participants may not be able to process their own transactions.

Three of the sources of systemic risk identified by Tarullo, domino effects, fire sales, and critical functions, depend upon a firm's connections to other firms. These three forms of interconnectedness will typically be correlated with the size and scope of the firm, at least in relation to its market or service. If potential creditors to large firms judge that governments are likely to intervene to prevent an eventual bankruptcy, then this lower perceived risk of default may result in creditors being willing to offer the firms loans on easier terms than their less interconnected competitors. Big firms may thus gain funding advantages over smaller competitors, reinforcing the tendency of these firms to grow relative to their markets. Systemic risk regulators may attempt to construct and estimate a firm-specific index of systemic risk arising from these three sources of instability.

The remaining source of systemic risk identified by Tarullo, contagion, is relatively independent of firm size and complexity. Like the death of a canary in a coal mine,⁹ the failure of even the smallest firm may signal that even large firms, if they are exposed to similar risks, may be in danger. Contagion is thus based on the information that a firm's failure provides to investors, rather than a specific transactions or interconnections of the failed firm. Tarullo interprets the run on money market mutual funds that occurred in September 2008 as contagion that had little to do with the size, complexity, or transparency of Lehman Brothers. Rather, in Tarullo's view, the failure of Lehman Brothers was a signal to investors that money market mutual funds exposed to holders of mortgage-related assets could be in financial trouble. If correct, it would be difficult to construct or estimate a firm-specific index of systemic risk arising from this type of contagion.

The next section discusses the membership of the FSOC, and the special roles that some members have with respect to these six policy tools.

II. FSOC Membership and Roles

The FSOC has 10 voting members and 5 nonvoting members. (See **Table 1** above for a complete listing.) The council is chaired by the Secretary of the Treasury. Voting members include prudential bank regulators (e.g., the Office of the Comptroller and the Currency [OCC] and the FDIC), securities market regulators (e.g., the Commodity Futures Trading Commission [CFTC] and the SEC), and an independent insurance expert appointed by the President, with Senate confirmation. The nonvoting members include state level representatives from bank, securities,

⁹ Historically, canaries were used as sentinels in poorly ventilated underground mines because they are more sensitive to certain odorless, toxic, or explosive gases.

and insurance regulators, as well as the directors from the newly created OFR and the Federal Insurance Office (FIO).

Several agencies have special roles in addressing the kinds of systemic risks that the FSOC was designed to monitor. The DFA grants specific authority under certain circumstances for the Secretary of the Treasury, the Federal Reserve, and the FDIC to act without further approval from the FSOC as a whole. However, with regards to actions taken for particular firms, these three agencies will often be relying on shared FSOC resources, such as the information provided by the OFR, or will coordinate actions with the firm's primary regulator, which will typically be another agency represented on the FSOC. The following describes the Treasury Secretary's role as chair of the FSOC, the Federal Reserve's role as prudential regulator of firms designated systemic by the FSOC, and the FDIC's role in resolving non-banks that are likely to be designated as systemic by the FSOC. Whether the heads of these three agencies would be acting as members of FSOC, or in their agency's independent capacity, is beyond the scope of this report.

Secretary of the Treasury, Chair of the FSOC

The Secretary of the Treasury has a number of important functions on the FSOC that differ from other agencies. Foremost, the Secretary serves as the chair of the council. The chair has a number of powers and responsibilities related to FSOC meetings, congressional reports and testimony, and certain rulemakings and recommendations of the council. As chair, the Secretary may call a meeting of the FSOC.¹⁰ Otherwise, meetings may be called by a majority of the members, but shall be held at least quarterly. The Secretary must testify before the House Committee on Financial Services and the Senate Committee on Banking, Housing, and Urban Affairs in conjunction with the release of the annual FSOC report. If any member agencies have notified Congress of deficiencies in systemic risk efforts, the Secretary is to address those concerns at the hearing.

The Secretary has special powers regarding the designation of systemic non-bank firms. Under Section 113(a)(1), a two-thirds vote of the FSOC is required to designate a non-bank as posing systemic risk and therefore subject to supervision by the Federal Reserve. However, one of the affirmative votes must be that of the Secretary of the Treasury. In other words, the chair of the FSOC has an effective veto over the designation of individual firms as systemically important; this applies to domestic and foreign firms, and for anti-evasion.¹¹ Similarly, the chair's vote is required to rescind or reevaluate the systemic designation of a firm. In emergencies, the chair's affirmative vote is required as part of the determination that a non-bank will not be granted the usual hearing before its designation as systemic. As part of those anti-evasion provisions, if certain large recipients of Troubled Asset Relief Program (TARP) funds (specifically, if they hold over \$50 billion and were part of the Capital Purchase Program) cease to be bank holding companies, then they are automatically considered a systemically significant firm as if they had been designated as such by the FSOC and are placed under Federal Reserve supervision.¹²

¹⁰ P.L. 111-203 §111(e).

¹¹ P.L. 111-203 §113(c) authorizes the FSOC to designate as systemically important a firm that has organized itself in such a way as to avoid such designation.

¹² P.L. 111-203 §117.

As chair of the FSOC, the Secretary also has the responsibility to conduct or coordinate and report on periodic studies of the economic impact of systemic risk regulations.¹³ The first such report was due 180 days after DFA enactment. Subsequent reports must be completed at least every five years thereafter. The Secretary of the Treasury has a consultative role with the OFR, which is responsible for certain research functions related to those reports and in other areas.

The Secretary, along with the Federal Reserve, negotiates with foreign regulators and multilateral organizations to coordinate prudential supervision and regulation for all highly leveraged and interconnected financial companies.

The Secretary plays a role in recommending receivership procedures for failing firms that have been designated as systemic. Although the Federal Reserve and the FDIC can make their own request for a receivership of a systemic firm based on evaluations described in Section 203a(2)(A-H), the Secretary may request a determination that a financial firm will default or is likely to default, with a systemic impact, and then appoint the FDIC as receiver. Note that the determination requires two-thirds vote of both the Fed and the FDIC board. In cases in which the firm is a broker-dealer, or its largest subsidiary is a broker-dealer, it is the Fed and the SEC by two-thirds vote that make the determination, in consultation with the FDIC. The Fed and the director of the Federal Insurance Office make the recommendation for insurance companies. The Secretary petitions the courts if the covered firm objects to the determination. The FDIC must consult with the Secretary to obtain a second extension of the time limit for the receivership.

Once a recommendation for receivership has been made, the Secretary is to make the determination and findings that trigger the resolution regime under the FDIC. The Secretary's determination must address (1) the likelihood that the firm will default or is in default; (2) the likely effect of the firm's failure on financial stability; (3) the viability of private sector alternatives available to prevent the default; (4) the impact on the firm's creditors and other counterparties; (5) the likelihood of FSOC resolution avoiding or mitigating systemic risks, its likely cost to the general fund of the Treasury, and the potential of receivership resulting in excessive risk taking by the firm or its creditors and other counterparties (i.e., moral hazard); (6) a federal regulatory agency has ordered the firm to convert all of its convertible debt instruments that are subject to the regulatory order; and (7) the company satisfies the definition of a financial company.¹⁴

The Secretary has a number of duties pertaining to the determination and procedures for the FDIC to act as receiver. First, the Secretary must notify certain majority and ranking members of Congress within 24 hours of the appointment of the FDIC as receiver. In addition, the rules and regulations that the FDIC issues for the use of funds pursuant to receivership must be acceptable to the Secretary.¹⁵ The FDIC is to provide to the Secretary and the comptroller general an annual accounting report of receiverships. The Secretary's approval is required for the FDIC to provide additional payments¹⁶ under some circumstances.¹⁷

¹³ P.L. 111-203 §123.

¹⁴ P.L. 111-203 §203(b).

¹⁵ P.L. 111-203 §203(D).

¹⁶ Further, the Secretary may invest unused portions of the fund for receivership in obligations of the United States, and the Secretary may purchase obligations for the FDIC to proceed in its receivership powers. The Secretary determines the interest based upon yields on U.S. debt plus a surcharge based upon the spread between U.S. securities and corporate bonds of comparable maturity. These transactions may be considered U.S. public debt, and proceeds from (continued...)

The Secretary has a number of roles regarding orderly liquidation plans of covered institutions. Amounts from the resolution fund to support orderly liquidation under a liquidation plan must be acceptable to the Secretary. Amendments to an orderly liquidation plan must be acceptable to the Secretary.¹⁸ Furthermore, the FDIC is to assure the Secretary of a repayment plan for the orderly liquidation plan, and the Secretary and the FDIC must report to Congress on the terms of the repayment plan.

Federal Reserve—Prudential Regulator for Large Non-Banks

Since its creation in 1913, the Federal Reserve has had the authority to address financial market instability. Congress created the Fed as a lender of last resort following the recommendations of a commission established to investigate the causes of a financial panic that had occurred in 1907. Relative financial stability after WWII, and congressional directives to focus on price stability and maximum employment, may have redirected the Fed's focus to macroeconomic variables, but addressing financial market instability has always been a core mission of the Fed.¹⁹ Under the FSOC, the Fed will not only be a lender of last resort, and conduct monetary policy, but the Fed will also have additional supervision and examination authority for individual non-banks designated by the FSOC.²⁰

The Dodd-Frank Act directs the Federal Reserve to supervise certain large non-bank financial companies, but the FSOC recommends the standards. Section 115 of Dodd-Frank states that the regulatory standards for non-bank financial firms under Fed supervision must be more stringent than the standard for non-bank financial firms which are not under Fed supervision and do not present systemic risks. Section 115(b)(3) lists characteristics of non-bank firms that the Federal Reserve may supervise, including (1) risk-based capital requirements, (2) leverage limits, (3) liquidity requirements, (4) resolution plan and credit exposure report requirements; (5) concentration limits; (6) a contingent capital requirement, (7) enhanced public disclosures, (8) short-term debt limits, and (9) overall risk management requirements. Standards for foreign firms are to acknowledge equality of competitive opportunity and take into account the extent to which the foreign non-bank is subject to comparable standards in its home country.

The Federal Reserve has several powers and duties over covered bank holding companies and non-banks, upon a two-thirds vote of the FSOC.²¹ For example, the Federal Reserve can limit the ability of the company to merge with other companies. It can restrict the products the firm offers, or impose conditions on the manner that the firm conducts activities. Under some circumstances, the Fed can require the company to sell or otherwise transfer assets or off-balance-sheet items to unaffiliated entities.

(...continued)

sales reduce the public debt. The Secretary jointly consults with the FDIC in determining the rules and regulations for the maximum obligations that can be used in relation to the assets of a failing firm subject to FDIC resolution.

¹⁷ P.L. 111-203 §203-4.

¹⁸ P.L. 111-203 §210(n)(9)(A).

¹⁹ "FRB: Mission," Board of Governors of the Federal Reserve System, available at <http://www.federalreserve.gov/aboutthefed/mission.htm>.

²⁰ For an in depth review in this area, see CRS Report R41384, *The Dodd-Frank Wall Street Reform and Consumer Protection Act: Systemic Risk and the Federal Reserve*, by Marc Labonte.

²¹ P.L. 111-203 §121.

The Federal Reserve also has information collection authority, including through examinations, for covered firms, although the Fed is to rely on existing data sources to the extent possible.²² In cases in which the covered firm has another primary regulator (such as the OCC), the Fed is to give the primary regulator reasonable notice of the proposed examination.

The DFA permits the Federal Reserve to establish standards for systemic firms in a number of additional areas.²³ These areas include a contingent capital requirement, enhanced public disclosures, short-term debt limits, and such other prudential standards as the Board of Governors, on its own or pursuant to a recommendation made by the FSOC, determines are appropriate.

FDIC Resolution Process for Certain Non-Banks

Since its inception, the FDIC has had the authority to administratively resolve insured depositories (banks and thrifts) that fail, rather than proceed through the bankruptcy courts. The DFA extends this authority to certain large and complex non-bank financial companies, under some circumstances.²⁴

In addition to the Treasury Secretary's authority, the FDIC, with the concurrence of the Fed, may also recommend a determination of systemic risk from failing non-banks.²⁵ The FDIC's determination must include the votes of two-thirds of the FDIC's Board. Among the eight factors that the determination must address are

- the likelihood that the non-bank will default;
- a description of likely financial instability that could result from default;
- recommended actions under liquidation authority; and
- explanation of perceived deficiency of the bankruptcy process for this firm.²⁶

Furthermore, Section 206 states that FDIC actions must be for the purpose of addressing systemic risk, and not be for the purpose of preserving the non-bank.

The powers and duties of the FDIC with respect to resolving systemic firms are set out in Section 210. Essentially, the FDIC is the successor to the failing firm. The FDIC has the firms' rights, titles, and privileges. The FDIC takes over its assets, with rights of collection. The FDIC takes over the functions of the firm's officers, directors, and shareholders. The FDIC has powers over any of the firms' subsidiaries that pose systemic risk. The FDIC can form bridge companies for the purpose of orderly liquidation. The FDIC is to pay valid obligations, subject to its systemic risk determinations. The FDIC's resolution is intended to ensure that shareholders and unsecured

²² P.L. 111-203 §161.

²³ P.L. 111-203 §165.

²⁴ For an in-depth review in this area, see CRS Report R40530, *Insolvency of Systemically Significant Financial Companies (SSFCs): Bankruptcy vs. Conservatorship/Receivership*, by David H. Carpenter.

²⁵ As noted above however, the SEC evaluates the likelihood of default for broker-dealers, and the Director of the Federal Insurance Office evaluates insurance firms.

²⁶ P.L. 111-203 §203(a)(2).

creditors bear losses. The FDIC may pay resolution costs as described in Section 204(d) of the DFA.

Once a resolution has been undertaken, the FDIC has reporting requirements to the FSOC and to Congress. After 60 days, the FDIC must deliver a written report to the appropriate congressional committees, providing additional details of the receivership. These additional details include but are not limited to (1) describing the financial condition of the failing firm at the time of receivership, (2) describing the FDIC's plan to resolve the failing firm, (3) describing the reasons for the provision of any funding to the receivership out of the Fund, and (4) explaining the expected costs of resolving the firm.

III. Office of Financial Research

The Office of Financial Research (OFR) was created by the DFA to support the FSOC and member agencies by collecting and standardizing financial data, performing applied research and essential long-term research, developing tools for risk measurement and monitoring, performing other related services, making the results of the activities of the office available to financial regulatory agencies.²⁷

Progress on the Creation of the Office

OFR has been established as an office of the Department of the Treasury. Treasury estimated in March 2011 that the OFR would have 33 full-time employee equivalents (FTEs) by the end of the fiscal year and 168 FTEs by the end of FY2012.²⁸ In testimony before the Senate Committee on Banking, Housing, and Urban Affairs, Treasury officials stated that OFR has hired a chief operating officer, chief data officer, and chief business officer, and has made progress toward establishing its research and analysis staff. As required under the DFA, the OFR has sought to maintain comparable compensation and benefits with other financial regulators.

Budgetary Resources

The OFR is not currently subject to congressional appropriations. The Board of Governors of the Federal Reserve is required in the DFA to provide sufficient funding directly for the first two years after establishment to cover the expenses of OFR, after consultation with the FSOC and the Secretary of the Treasury.²⁹ Treasury estimates in Congressional Budget Justifications that OFR

²⁷ P.L. 111-203 §§153(a)(1)-(7).

²⁸ Department of the Treasury, "Fiscal Year 2012 Congressional Budget Justification," Washington, DC: GPO, 2011, p. 493; More recent and additional background and updates were provided in testimony of Neal S. Wolin, Deputy Secretary of the Treasury, in U.S. Congress, Senate Committee on Banking, Housing, and Urban Affairs, *Oversight of Dodd-Frank Implementation: Monitoring Systemic Risk and Promoting Financial Stability*, 112th Cong., 2nd sess., May 11, 2011, available at http://banking.senate.gov/public/index.cfm?FuseAction=Hearings.Testimony&Hearing_ID=05607bb5-db07-4d22-9feb-e4a8acf981e8&Witness_ID=a2a802ec-6db7-4748-a73f-902b35d0e51d.

²⁹ P.L. 111-203 §155(c). While the President appoints the director of OFR with Senate confirmation, the Secretary of the Treasury is to consult with the director on the budget of the OFR. The Secretary is also to consult with the director on hiring employees for the OFR, and their pay. This may serve as a check on the independence of OFR in some circumstances.

will be funded at \$34 million in FY2011, and \$74 million in FY2012. After this interim period, (i.e., in July 2012) the OFR is to replace this funding source with assessments on bank holding companies with total consolidated assets of \$50 billion or more and on non-bank financial companies supervised by the Board of Governors.³⁰ The Secretary, with the approval of the FSOC, is to establish regulations for the assessment base and rate schedule. The assessments are to equal the total expenses of the OFR, and are authorized to be spent for any official OFR purpose without further Congressional appropriations.³¹

The Secretary, with the concurrence of the director, is to establish rules for limitations on post-employment of exiting OFR employees with access to confidential information in financial services for one year after leaving. The Secretary is to consult with the director for any special advisory committees or fellowship programs for the OFR. The Secretary is also to consult with the OFR for rulemakings relating to the collecting of information from supervised entities.³²

Current Activities

Treasury budget documents describe the first priority of OFR as “improving data standards to help FSOC monitor systemic risk and improve risk management, reporting, and other business functions at individual financial firms.”³³ To that end, OFR is pursuing several data improvement efforts, in some cases in coordination with other regulators, including an international, uniform system of unique legal entity identifiers,³⁴ standardizing electronic derivatives and swap data, and other efforts that will assist supervisors and the public in some instances in understanding and analyzing financial information.³⁵

In its research role, the OFR is assisting the FSOC in analysis toward publishing regulations on the evaluation of non-bank financial firms for potential designation as systemically important and on the annual report, which was published and provided to Congress in July 2011. OFR has also begun to establish forums and networks to draw together experts from within and outside of the regulatory community. OFR, jointly with the National Science Foundation, expects to host a conference in 2011 to discuss systemic risk monitoring and potential responses.³⁶

³⁰ P.L. 111-203 §155(d) and Office of Management and Budget, *Budget of the United States Government, Fiscal Year 2012: Appendix*, Washington, DC, February 2011, p. 975, available at <http://www.whitehouse.gov/sites/default/files/omb/budget/fy2012/assets/appendix.pdf>.

³¹ P.L. 111-203 §§155(b)(1) and (d).

³² P.L. 111-203 §153(c).

³³ Department of the Treasury, *Budget-in-Brief*, Washington, DC, February 2011, p. 80, available at http://www.treasury.gov/about/budget-performance/budget-in-brief/Documents/FY2012_BIB_Complete_508.pdf.

³⁴ Office Of Financial Research, “Statement On Legal Entity Identification For Financial Contracts,” *75 Federal Register* 74146, November 30, 2010, available at <http://federalregister.gov/a/2010-30018>.

³⁵ Some of the rules have been published for comment with triggers in place such that the rules will move forward unless more desirable international standards have been published, in which case those will be agreed to. For example, the SEC and CFTC have published conditional requirements in proposed rules on reporting swap transaction data that would rely on International Organization for Standardization (ISO) standards which are currently in process. International Organization for Standardization, *ISO Financial Services Standard Wins Industry Support Six Months Ahead of Publication*, July 25, 2011, available at <http://www.iso.org/iso/pressrelease.htm?refid=Ref1449>. Further context is available from Paul Janssens, “Uncovering Systemic Risk: Regulators Push for Global Legal Entity Identifiers,” *ISO Focus+*, International Organization for Standardization, April 2011, pp. 13-15 available at <http://digital.iso.org/Olive/ODE/ISO-Focus-Plus-Org/?href=ISOFP/2011/04/01>.

³⁶ Testimony of Neal S. Wolin, Deputy Secretary of the Treasury, in U.S. Congress, Senate Committee on Banking, (continued...)

IV. Rulemaking During the 112th Congress

FSOC's Authority to Designate Fed Supervision

Systemically important and currently unregulated financial³⁷ firms and financial market utilities may be made subject to Federal Reserve regulation. Financial market utilities are entities that transfer, clear, or settle financial transactions, often issuing intra-day credit to do so. In addition, Title VIII of the DFA lists utility-related activities that themselves could be regulated, such as the netting of financial transactions or the movement of funds. Bank holding companies with more than \$50 billion in financial assets will automatically be subject to Federal Reserve regulation.

Although the FSOC, with a two-thirds majority vote, may designate any non-bank financial firm systemically important, the FSOC will use factors described above and in Section 113 to make these designations, in addition to any other risk-based factors it deems appropriate.³⁸ The details of the process, such as how the FSOC will define or measure the factors it considers, are currently open for a second round of public comment and will be finalized in future rulemaking.³⁹

The FSOC has also published a final rule describing their authority to designate financial market utilities as systemically important.⁴⁰ The FSOC expects to issue a proposed rule describing the criteria and procedures for designation of utility-related activities, such as payment, clearing, or settlement activities.

Mandatory Financial Stability Studies Under the Dodd-Frank Act

The DFA mandates more than 80 studies and reports.⁴¹ Below are a selection of studies related to systemic risk at a few FSOC agencies most related to this effort, including the Fed, CFTC, FDIC,

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Housing, and Urban Affairs, *Oversight of Dodd-Frank Implementation: Monitoring Systemic Risk and Promoting Financial Stability*, 112th Cong., 2nd sess., May 11, 2011, available at http://banking.senate.gov/public/index.cfm?FuseAction=Hearings.Testimony&Hearing_ID=05607bb5-d07-4d22-9feb-e4a8acf981e8&Witness_ID=a2a802ec-6db7-4748-a73f-902b35d0e51d.

³⁷ The act defines firms as “financial” if they receive 85% of gross earnings from financial activities or hold 85% total holdings in financial assets, however further clarification and specificity will be required through agency rulemaking.

³⁸ P.L. 111-203 §113(a)(2) describes the considerations the FSOC will use in determining whether to make a U.S. non-bank financial firm subject to the Federal Reserve’s supervision. P.L. 111-203 §113(b)(2) does the same for foreign non-bank financial firms.

³⁹ Financial Stability Oversight Council, “Authority to Require Supervision and Regulation of Certain Nonbank Financial Companies,” 76 *Federal Register* 64264, October 18, 2011, available at <http://federalregister.gov/a/2011-26783>.

⁴⁰ Financial Stability Oversight Council, “Authority To Designate Financial Market Utilities as Systemically Important,” 76 *Federal Register* 44769, July 27, 2011, available at <http://federalregister.gov/a/2011-18948>.

⁴¹ In this analysis, totals typically refer to an unduplicated count of studies, such that a collaboration on a study would count as one study but could be referred to in discussions of more than one agency’s work. An analysis by Davis Polk & Wardwell LLP, a law firm, concludes that as of September 6, 2011, federal agencies had missed six deadlines for studies or reports, producing 38 of 44 thus far required on time. Just over half of the studies and reports required in the DFA compel GAO and the SEC to conduct activities. Analyses available at <http://www.davispolk.com/dodd-frank/>.

FSOC, SEC, and Treasury.⁴² This list is not comprehensive, but rather outlines certain important upcoming and released studies.

- The FSOC has released reports on the impact of secured creditor haircuts (§215),⁴³ proprietary trading (§619),⁴⁴ concentration limits (§622),⁴⁵ and macroeconomic effects of risk retention (§946).⁴⁶
- The SEC has released a study on investor access to information about Investment Advisers and Broker-Dealers (§919B).⁴⁷
- The Fed published a study on the resolution of financial companies under Bankruptcy chapters 7 and 11 (§216),⁴⁸ and on international coordination of resolution of systemically important companies (§217).⁴⁹
- Treasury has released a study on recommendations for ending the conservatorship of Fannie Mae and Freddie Mac while minimizing the cost to taxpayers (§1074).⁵⁰
- The FSOC has published proposed rules defining the procedures and criteria by firms' systemic importance will be evaluated (as required by §§112 and 113).⁵¹

⁴² For more information, see CRS Report R41472, *Rulemaking Requirements and Authorities in the Dodd-Frank Wall Street Reform and Consumer Protection Act*, by Curtis W. Copeland.

⁴³ Financial Stability Oversight Council, *Report to the Congress on Secured Creditor Haircuts*, Washington, DC, January 2011, available at <http://www.treasury.gov/initiatives/Documents/Report%20to%20Congress%20on%20Secured%20Creditor%20Haircuts.pdf>.

⁴⁴ Financial Stability Oversight Council, *Study & Recommendations on Prohibitions on Proprietary Trading & Certain Relationships with Hedge Funds & Private Equity Funds*, Washington, DC, January 2011, available at <http://www.treasury.gov/initiatives/Documents/Volcker%20sec%20%20619%20study%20final%201%2018%2011%20rg.pdf>.

⁴⁵ Financial Stability Oversight Council, *Study & Recommendations Regarding Concentration Limits on Large Financial Companies*, Washington, DC, January 2011, available at <http://www.treasury.gov/initiatives/Documents/Study%20on%20Concentration%20Limits%20on%20Large%20Firms%2001-17-11.pdf>.

⁴⁶ Financial Stability Oversight Council, *Macroeconomic Effects of Risk Retention Requirements*, Washington, DC, January 2011, available at <http://www.treasury.gov/initiatives/wsr/Documents/Section%20946%20Risk%20Retention%20Study%20%20%28FINAL%29.pdf>.

⁴⁷ Securities and Exchange Commission, "Study and Recommendations on Improved Investor Access to Registration Information about Investment Advisers and Broker-Dealers," January 21, 2011, available at <http://www.sec.gov/news/studies/2011/919bstudy.pdf>.

⁴⁸ Board of Governors of the Federal Reserve System, "Study on the Resolution of Financial Companies under the Bankruptcy Code," July 2011, available at <http://www.federalreserve.gov/publications/other-reports/files/bankruptcy-financial-study-201107.pdf>.

⁴⁹ Board of Governors of the Federal Reserve System, "Study on International Coordination Relating to Bankruptcy Process for Nonbank Financial Institutions," July 2011, available at <http://www.federalreserve.gov/publications/other-reports/files/nonbank-financial-study-201107.pdf>.

⁵⁰ Department of the Treasury and the Department of Housing and Urban Development, *Reforming America's Housing Finance Market: A Report to Congress*, Washington, DC, February 2011, available at <http://www.treasury.gov/initiatives/Documents/Reforming%20America%27s%20Housing%20Finance%20Market.pdf>.

⁵¹ Financial Stability Oversight Council, "Authority to Require Supervision and Regulation of Certain Nonbank Financial Companies," 76 *Federal Register* 64264, October 18, 2011, available at <http://federalregister.gov/a/2011-26783>.

- The SEC has requested input for a study and report, due in July 2012, on investor financial literacy (§917),⁵² and on credit ratings' correlation with default expectations (§939).⁵³
- The CFTC and the SEC have requested public input on a joint study and report on swap regulation and clearinghouse regulation in the United States, Asia, and Europe and to identify areas of regulation that are similar and in need of harmonization (§719(c)).⁵⁴
- The SEC has requested public input on study and report on short selling (§417)⁵⁵.
- The Fed, FDIC, and OCC are required to jointly study and report on the activities a banking entity may engage in under federal and state law, and recommend whether in those regulators' opinions those permitted activities could have a negative effect on the safety and soundness of the banking entity or the U.S. financial system (§620).
- Separate from the FSOC annual report required at §112(2)(N), and from the transition oversight report on staffing implementation required by §156, the OFR is required, starting two years after enactment, i.e., July 2012, at §154(d) to report to Congress on threats to financial stability, status of the efforts of the office, and research findings.

Progress on Mandatory Rulemakings Under the Dodd-Frank Act

The DFA includes more than 300 rulemaking requirements. Many of these rulemakings are the result of discrete visions of the causes and impacts of financial instability. The areas discussed below were selected for the most part because they are identified in the FSOC's Annual Report to Congress, and do not represent a comprehensive survey of the potential causes and responses to the crisis. Rather, this should be viewed as a listing of selected important rules in the areas of prudential regulation, incentives faced by individuals and firms, and transparency considerations that receive much of the attention in discussions of systemic risk rulemaking.

Risk Management Standards

Broadly, risk management standards are practices that mitigate the exposure of firms to risk or reduce the damage to firms from negative shocks.⁵⁶ Although much of the DFA was related in

⁵² Securities and Exchange Commission, "Comment Request on Existing Private and Public Efforts To Educate Investors" April 22, 2011, 76 *Federal Register* 22740, available at <http://federalregister.gov/a/2011-9829>.

⁵³ Securities and Exchange Commission, "Credit Rating Standardization Study," 75 *Federal Register* 80866, December 23, 2010, available at <http://federalregister.gov/a/2010-32280>.

⁵⁴ Commodity Futures Trading Commission and the Securities and Exchange Commission, "Acceptance of Public Submissions for a Study on International Swap Regulation Mandated by Section 719(c) of the Dodd-Frank Wall Street Reform and Consumer Protection Act," 76 *Federal Register* 44508, July 26, 2011, available at <http://federalregister.gov/a/2011-18763>.

⁵⁵ Securities and Exchange Commission, "Short Sale Reporting Study Required by Dodd-Frank Act Section," 417(a)(2), May 9, 2011, 76 *Federal Register* 26787, available at <http://federalregister.gov/a/2011-11188>.

⁵⁶ To avoid regulator arbitrage and encourage prudent financial behavior, risk management standards are intended to be as consistent as practicable across regulators, similar firms, and between countries.

general to specific kinds of risk management standards,⁵⁷ most rulemaking is still in the comment or design phase. The sections below will present rules intended to address a specific approach to improve risk management. Certain rulemakings are broad in nature however. For example, the Fed published a notice of proposed rulemaking on April 4, 2011 establishing supervision of any financial market utilities that might be designated systemically important (other than those already supervised by the SEC or the CFTC). Under the rules, any financial market utility designated systemically important would be required to use best practices, such as requiring that central counterparties measure credit exposures to its participants at least once a day and limit its exposures to potential losses from defaults by its participants, while several types of firms will also be required to meet “well-capitalized” and “well-managed” tests.⁵⁸

Stress Tests

A stress test is a mathematical simulation designed to evaluate the strength of a company, asset class, or other financial instrument. In a stress test, a plausible but large negative shock is simulated along with the tested variables to examine whether such a scenario would lead to failure of a firm. To ensure companies are strong enough to withstand plausible shocks, the Fed and other relevant regulatory agencies have required stress testing in the past and are required in the DFA to issue regulations to establish consistent and comparable stress test definitions, methodologies, and reporting requirements.⁵⁹

Risk-Based Capital

Risk-based capital are assets held by a firm to ensure solvency and liquidity, weighted by the riskiness of the liabilities of the firm. The DFA required significant changes to the risk-based capital regime,⁶⁰ intended to ensure that capital standards at bank holding companies and designated systemically important firms are not systematically weaker than those at insured depositories. For example, federal regulators are required by what is known as the Collins Amendment to establish that capital requirements applying to insured banks will serve as a floor for any capital requirements the agencies may establish for banks, bank holding companies, and non-bank financial companies supervised by the Federal Reserve. In part this is intended to avoid regulatory arbitrage wherein a firm attempts to find the least burdensome capital instrument and thereby undercapitalizes itself. The Fed, along with the FDIC and OCC (subject to FSOC recommendations), approved a final rule establishing minimum risk-based capital standards on June 28, 2011.⁶¹

⁵⁷ For example, capital and liquidity standards, concentration limits, maturity requirements are all specific types of risk management requirements placed on firms.

⁵⁸ Board of Governors of the Federal Reserve System, “Financial Market Utilities,” 76 *Federal Register* 18445, April 4, 2011, available at <http://federalregister.gov/a/2011-7812>.

⁵⁹ P.L. 111-203 §165(i). One example of a stress test was the Supervisory Capital Assessment Program (SCAP). Certain large recipients of the Troubled Asset Relief Program (TARP) were required to pass this test to exit the program. SCAP is detailed comprehensively by the Special Inspector General of the Troubled Asset Relief Program in the Audit Report of September 29, 2011. Available at http://www.sig tarp.gov/reports/audit/2011/Exiting_TARP_Repayments_by_the_Largest_Financial_Institutions.pdf.

⁶⁰ P.L. 111-203 §§171(b)(1-2).

⁶¹ Office of the Comptroller of the Currency, Board of Governors of the Federal Reserve System, and the Federal Deposit Insurance Corporation, “Risk-Based Capital Standards: Advanced Capital Adequacy Framework-Basel II; Establishment of a Risk-Based Capital Floor”, 76 *Federal Register* 37620, available at <http://federalregister.gov/a/> (continued...)

Also, the Fed, the Farm Credit Administration, FDIC, FHFA, and OCC, have proposed rules to establish the minimum margin and capital requirements for registered swap dealers and major swap participants.⁶² After an extension, comments on this proposal were due July 11, 2011, but no further action has taken place as of October 31, 2011.⁶³

Concentration Limits

A concentration limit is a cap on the financial exposure a firm may have to another firm, asset class, or type of activity. Although the FSOC can consider concentration limits as defined above in their rulemaking, limits within the DFA itself only extend to limits on mergers if the resultant firm would hold greater than 10% of all financial company liabilities. Intended to mitigate one channel of financial contagion, concentration limits reduce direct counterparty exposure and thereby the amount of damage the failure of one firm can have on the systemically important firms to which the DFA has applied this requirement. The Fed is directed in Section 165(e) to set concentration limits for large bank holding companies and Board-supervised non-bank financial firms by July 22, 2013, with possible extensions until July 22, 2015. A study required by Section 622 has been released.⁶⁴

Incentives

Compensation

Some have argued that compensation arrangements misalign incentives of management or rank and file employees, who may take inappropriate risks to realize short-run quarterly profits at the cost of long-run financial stability.⁶⁵ In the case of management, this argument, known technically as a principal-agent problem, proposes that the interests of executives with golden parachutes or non-vesting cash bonuses may be inconsistent with that of shareholders or society. In response, the SEC has adopted rules detailing regulatory requirements related to shareholder approval of executive compensation, including “golden parachutes” in some cases, and in any case disclosure of those contractual agreements.⁶⁶ This is intended to ensure that the compensation structures of financial firms do not incentivize short-term risk taking, and that there is an accountability feedback mechanism within firms. The SEC has also proposed rules requiring institutional investors to disclose this information to the SEC.⁶⁷ Still, some have argued that passive,

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2011-15669.

⁶² For more, see CRS Report R40646, *Derivatives Regulation and Recent Legislation*, by Mark Jickling and Rena S. Miller.

⁶³ Office of the Comptroller of the Currency, Board of Governors of the Federal Reserve System, and the Federal Deposit Insurance Corporation, “Margin and Capital Requirements For Covered Swap Entities”, 76 *Federal Register* 37029, available at <http://federalregister.gov/a/2011-16004>.

⁶⁴ Financial Stability Oversight Council, *Study & Recommendations Regarding Concentration Limits on Large Financial Companies*, Washington, DC, January 2011, available at <http://www.treasury.gov/initiatives/Documents/Study%20on%20Concentration%20Limits%20on%20Large%20Firms%2001-17-11.pdf>.

⁶⁵ Robert J. Jackson, Jr., May 31, 2011 comment letter to the Fed, available at http://www.law.columbia.edu/null/download?&exclusive=filemgr.download&file_id=6035.

⁶⁶ Securities and Exchange Commission, “SEC Adopts Rules for Say-on-Pay and Golden Parachute Compensation as Required Under Dodd-Frank Act”, January 25, 2011, available at <http://www.sec.gov/news/press/2011/2011-25.htm>.

⁶⁷ Securities and Exchange Commission, “Shareholder Approval of Executive Compensation and Golden Parachute (continued...)”, available at <http://www.sec.gov/news/press/2011/2011-25.htm>.

uninformed, or short-term investors may render these requirements ineffective, because they will either fail to act or will continue to act against the best interests of society as a whole.

The FDIC has finalized a rule on orderly liquidation establishing claims priorities and procedures.⁶⁸ The rule permits the FDIC to claw back compensation from senior executives or directors the FDIC finds were substantially responsible for a company's failure, including compensation received up to two years before a firm entered FDIC receivership. The FDIC will presume that responsibility exists for a CEO, president, CFO, or president of the Board of Directors.

With regard to the compensation of the rank and file, some argue that the incentives of traders or otherwise non-executive employees are in part to blame.⁶⁹ In this argument, these individuals prioritize short-term gains over long-term business stability in part because the typical tenure is so short. The Fed, FDIC, FHFA (with some differences), NCUA, OCC, OTS, and SEC have proposed rules restricting incentive-based compensation arrangements that in those regulators' judgment could lead to inappropriate risk taking, are deemed excessive, or that may lead to material losses. They have proposed applying these rules to financial firms with more than \$1 billion in assets and more vigorously to financial firms with more than \$50 billion in assets. These larger firms have increased compensation deferral requirements under these proposals.⁷⁰ Informing those rules is a recently released Fed report outlining a comprehensive review of compensation practices at the 25 largest banking organizations.⁷¹ Others have argued that these rules will be insufficient to control systemic risk because no individual trader can foresee which trades or agreements will lead to default.⁷²

Conflicts of Interest

A conflict of interest occurs when a trusted party and counterparties have competing interests. For example, a conflict of interest can arise if a firm is a member of both a clearinghouse and a trading broker because if an asset being transferred becomes unexpectedly less valuable, either the clearinghouse or the trading broker will have to take the loss, but both entities trust the firm to act in their interests. Conflicts of interest may not be transparent to investors, and especially in swap transactions a principal-agent problem may arise wherein purchasers of swap agreements may not be aware of positions taken by counterparties. The SEC has proposed a rule intended to

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Compensation," February 2, 2011. *75 Federal Register* 66652, available at <http://federalregister.gov/a/2011-1971>.

⁶⁸ Federal Deposit Insurance Corporation, "Certain Orderly Liquidation Authority Provisions under Title II of the Dodd-Frank Wall Street Reform and Consumer Protection Act," July 15, 2011. *76 Federal Register* 41626, available at <http://federalregister.gov/a/2011-17397>.

⁶⁹ Robert J. Jackson, Jr., May 31, 2011 comment letter to the Fed, p. 2, available at http://www.law.columbia.edu/null/download?&exclusive=filemgr.download&file_id=6035.

⁷⁰ Comptroller of the Currency, Board of Governors of the Federal Reserve System, Federal Deposit Insurance Corporation, Thrift Supervision Office, National Credit Union Administration, Securities and Exchange Commission, and Federal Housing Finance Agency, "Incentive-Based Compensation Arrangements," April 4, 2011, *76 Federal Register* 21170, available at <http://federalregister.gov/a/2011-7937>.

⁷¹ Board of Governors of the Federal Reserve System, "Incentive Compensation Practices: A Report on the Horizontal Review of Practices at Large Banking Organizations, October 2011, available at <http://www.federalreserve.gov/publications/other-reports/files/incentive-compensation-practices-report-201110.pdf>.

⁷² Robert J. Jackson, Jr., May 31, 2011 comment letter to the Fed, pp. 2-3, available at http://www.law.columbia.edu/null/download?&exclusive=filemgr.download&file_id=6035.

mitigate conflicts of interest at security-based swap clearing agencies and similar firms, including ownership and voting limitations, as well as governance requirements.⁷³ The SEC has also proposed rules⁷⁴ prohibiting certain conflicts of interest from a wider range of activities within securitization. The SEC will accept comments on this proposed rule until December 19, 2011.

Proprietary Trading

Proprietary trading is the practice of taking positions with a firm's own funds. Sometimes these positions limit risk, (e.g., when a municipal bus operator buys futures to hedge against fuel price increases) or are performed in a firm's "market making" capacity, but the practice can also be used to increase leverage which exposes the firm to additional risk. Some, including former Fed Chairman Paul Volcker Jr., have proposed a ban on this activity. Acknowledging the difficulty of separating legitimate business needs from the more risky position taking, Section 619 required the FSOC to study and report on proprietary trading,⁷⁵ and subsequently to promulgate rules establishing the details of agency procedures and exceptions.⁷⁶ The OCC, Fed, FDIC, and SEC have announced a notice of proposed rulemaking defining under what conditions proprietary trading may take place, such as to hedge a legitimate exposure to risk, and included bans on certain conflicts of interest for reasons stated immediately above.⁷⁷ Some have criticized these proposed rules for their complexity and bank-reported cost of implementation.⁷⁸ Others have criticized the regulators as too slow in adopting the rules, and too open to watering down what they see as an important restriction on risk taking, pointing as evidence to aspects of the proposal which rely in part on self-regulation.⁷⁹

Credit Risk Retention

Credit risk retention refers to the practice of the seller of a loan agreeing to suffer losses if some loans default, also sometimes referred to as "skin in the game." An argument put forward during the crisis was that because some lenders and securitizers did not retain the risk of borrower default, they did not have an incentive to properly analyze applicants' ability to repay. In short, excepting certain circumstances, most mortgages will be "qualified mortgages" (sometimes

⁷³ While §765 requires this to be completed by January 18, 2011, the SEC plans to accept comments through April 29, 2011, according to: Securities and Exchange Commission, "Ownership Limitations and Governance Requirements for Security-Based Swap Clearing Agencies, Security-Based Swap Execution Facilities, and National Securities Exchanges with Respect to Security-Based Swaps Under Regulation MC," October 26, 2010, *75 Federal Register* 65882, available at <http://federalregister.gov/a/2010-26315>.

⁷⁴ Securities and Exchange Commission, "Prohibition Against Conflicts of Interest in Certain Securitizations," September 28, 2011, *76 Federal Register* 60320, available at <http://federalregister.gov/a/2011-24404>.

⁷⁵ The study was released this year and is available here: Financial Stability Oversight Council, Study and Recommendations on Prohibitions on Proprietary Trading and Certain Relationships with Hedge Funds and Private Equity Funds, Washington, DC, January 18, 2011, available at <http://www.treasury.gov/initiatives/Documents/Volcker%20sec%20%20619%20study%20final%201%2018%2011%20org.pdf>.

⁷⁶ P.L. 111-203 §619.

⁷⁷ Board of Governors of the Federal Reserve System, Untitled Press Release, Oct. 11, 2011, available at <http://www.federalreserve.gov/newsevents/press/bcreg/20111011a.htm>. Proposed *Federal Register* language available at <http://www.federalreserve.gov/newsevents/press/bcreg/bcreg20111011a1.pdf>.

⁷⁸ Keating, Frank, "ABA Statement on Proposed Volcker Rule," American Bankers Association, Oct. 11, 2011, available at <http://www.aba.com/Pressrs/101111VolckerRuleStatment.htm>.

⁷⁹ Lisa Donner, "Americans for Financial Reform Press Statement: Volcker Rule," Americans for Financial Reform, October 11, 2011, available at <http://ourfinancialsecurity.org/2011/10/afr-press-statement-volcker-rule/>.

referred to as QMs) meaning that lenders have satisfied certain due diligence requirements. A subset of these will be qualified residential mortgages (QRMs), which will have tighter standards but will not require risk retention. The Fed, FDIC, FHFA, HUD, OCC, and SEC, coordinated by the FSOC chair, have established risk retention rules for non-QRM securitized assets,⁸⁰ and exceptions to these rules for qualified mortgages have been proposed by the Fed.⁸¹

Transparency

Resolution Plans

A major policymaker concern during the 2008 financial panic was that the complexity and interconnectedness of financial firms made analysis of assets and firms more difficult.⁸² Due diligence of purchasers was slowed as firms and the government tried to untangle derivative positions, potential legal liability, and other factors to establish the core value of assets and companies. One response to this in the DFA was the requirement that resolution plans be created and maintained.⁸³ A resolution plan describes the company's strategy for rapid and orderly resolution in bankruptcy during times of financial distress, including specific actions the company proposes to take, the company's organizational structure, material entities, interconnections and interdependencies, and information management systems.

This is intended to make supervision clearer and more effective. If supervision is unable to preclude an eventual insolvency, these plans are also intended to make that insolvency less disruptive and therefore more likely to occur without the need for exceptional government intervention. Finally, if the FSOC determines that a bankruptcy would pose systemic risks, effective conservatorship or receivership is intended to be enabled by the requirement.⁸⁴ The Fed and the FDIC finalized rules on November 1, 2011, requiring resolution plans and credit exposure reports acceptable to those organizations.⁸⁵ The FDIC has adopted an interim final rule⁸⁶ requiring these plans for large insured depository institutions.

⁸⁰ P.L. 111-203 §941. Comptroller of the Currency, Board of Governors of the Federal Reserve System, Federal Deposit Insurance Corporation, Federal Housing Finance Agency, Securities and Exchange Commission, and Housing and Urban Development Department, "Credit Risk Retention," April 29, 2011, 76 *Federal Register* 24090, available at <http://federalregister.gov/a/2011-8364>. Comment period extended by 76 *Federal Register* 34010 to August 1, 2011, available at <http://federalregister.gov/a/2011-14444>.

⁸¹ P.L. 111-203 §1412. For more on this issue, see CRS Report R42056, *Ability to Repay, Risk-Retention Standards, and Mortgage Credit Access*, by Darryl E. Getter. A recent GAO report on a similar topic may also be of interest: Mortgage Reform: Potential Impacts of Provisions in the Dodd-Frank Act on Homebuyers and the Mortgage Market, available at <http://www.gao.gov/products/GAO-11-656>.

⁸² For more information on this, see CRS Report R41350, *The Dodd-Frank Wall Street Reform and Consumer Protection Act: Issues and Summary*, coordinated by Baird Webel.

⁸³ P.L. 111-203 §165(d).

⁸⁴ For more on the differences between bankruptcy and conservatorship or receivership resolution regimes, see CRS Report R40530, *Insolvency of Systemically Significant Financial Companies (SSFCs): Bankruptcy vs. Conservatorship/Receivership*, by David H. Carpenter.

⁸⁵ Federal Deposit Insurance Corporation and the Board of Governors of the Federal Reserve System, "Resolution Plans Required," November 1, 2011, 76 *Federal Register* 67323, available at <http://federalregister.gov/a/2011-27377>.

⁸⁶ Federal Deposit Insurance Corporation, "Resolution Plans Required for Insured Depository Institutions With \$50 Billion or More in Total Assets," September 21, 2011, 76. *Federal Register* 58379, available at <http://federalregister.gov/a/2011-24179>.

Credit Ratings

Each federal agency is required to review its regulations and remove any requirement or reference to credit ratings, replacing them with uniform credit worthiness standards.⁸⁷ Progress in this area has received criticism from consumer advocates for being too quick to remove credit ratings without an alternative in place other than internal due diligence. The SEC and Internal Revenue Service (IRS) have final rules in place, though most FSOC agencies have only completed advanced notices of proposed rulemaking.

Registration and Reporting of Swaps

A swap is a derivative trading the benefits of one contractually defined instrument, such as a security, for another. One argument related to swaps is that they make resolution of a firm more difficult and that they help create off-balance sheet exposures that cannot be accurately priced or monitored by regulators for systemic risk.⁸⁸ Pursuant to the DFA, the SEC, CFTC, and other agencies have several proposed or final rules establishing steps that swap dealers and major market participants⁸⁹ will be required to take. These include a registration process, certain duties and guiding principles, several rules regarding data standardization to assist with the collection efforts, and certain exceptions to general rules for activities viewed as stabilizing.⁹⁰ Policymakers have examined proposals requiring derivatives and swaps to be traded on exchanges, increasing transparency and regulatory oversight.⁹¹ The SEC is considering making transaction and pricing data public. Swap dealers and major market participants will have to register and provide trade acknowledgements,⁹² make certain disclosures, establish a supervisory and compliance infrastructure, and provide contract eligibility verifications.⁹³

Other Rulemakings by FSOC Members Addressing Systemic Risk

Because in some cases the DFA may have granted an authority to an agency which the agency believes only reiterates an existing authority, certain rules substantially related to the DFA may not cite the act.⁹⁴ For example, the Fed, FDIC, OCC, OTS, and NCUA have issued final

⁸⁷ P.L. 111-203 §939.

⁸⁸ For more information, see CRS Report R40646, *Derivatives Regulation and Recent Legislation*, by Mark Jickling and Rena S. Miller.

⁸⁹ P.L. 111-203 §764.

⁹⁰ P.L. 111-203 §763(i). Securities and Exchange Commission, “Security-Based Swap Data Repository Registration, Duties, and Core Principles,” 75 *Federal Register* 77306, December 10, 2010, available at <http://federalregister.gov/a/2010-29719>. Corrections available at 75 *Federal Register* 79320, available at <http://federalregister.gov/a/C1-2010-29719>, and 76 *Federal Register* 2287, available at <http://federalregister.gov/a/C2-2010-29719>.

⁹¹ For more information, including summary and bill citations, see CRS Report R40646, *Derivatives Regulation and Recent Legislation*, by Mark Jickling and Rena S. Miller.

⁹² Securities and Exchange Commission, “Trade Acknowledgment and Verification of Security-Based Swap Transactions,” 76 *Federal Register* 3859, January 21, 2011, available at <http://federalregister.gov/a/2011-1218>.

⁹³ Securities and Exchange Commission, “Business Conduct Standards for Security-Based Swap Dealers and Major Security-Based Swap Participants,” 76 *Federal Register* 42396, July 18, 2011, available at <http://federalregister.gov/a/2011-16758>. Correction at 76 *Federal Register* 46668, August 3, 2011. Correction available at <http://federalregister.gov/a/C1-2011-16758>.

⁹⁴ Another possibility is that the act may have required a regulator to publish rules where the regulator was already permitted to do so before passage of the Dodd-Frank Act.

harmonizing guidelines on interagency supervision and appraisal and evaluation of collateral. These guidelines were published in the *Federal Register* in late 2010, but were originally proposed in 2008 and served to update guidance put in place as far back as 1994.⁹⁵

Similarly, the FDIC has published several rules related to programs before and after passage of the DFA that started as Treasury responses to the crisis, such as the Temporary Liquidity Guarantee Program and the Transaction Account Guarantee Program. These guarantee programs responded to the crisis in 2008, but do not mention the DFA, which included Section 1105 formalizing these financial emergency powers.

V. Analysis of Perceived Threats to Financial Stability

The FSOC's annual report to Congress is to include an analysis of perceived threats to the financial system. The following sections analyze specific threats mentioned in the 2011 FSOC annual report or that the chair of FSOC testified to in the accompanying hearings when the annual report was released. For each topic, the reader is provided a brief description of the issue, how it might contribute to a systemic event, and an analysis of the FSOC's report.

Regulation and Resolution of Large, Complex Banking Organizations

Issue Area

The three channels of risk (identified by Tarullo above) posed by large, complex banking organizations (LCBOs) are domino effects, fire sales, and loss of a critical function. Large firms have more interconnections and larger-sum counterparty agreements, posing a greater threat of a domino effect if they fail. They also hold more assets, and can affect market prices to a greater degree if they are forced to sell off their assets in a fire sale to raise capital during a time of stress. Also, the possible loss of a critical function is greater because there are likely to be fewer substitutes if one firm has a very large market share.⁹⁶ As stated above, Governor Tarullo does not believe that contagion is dependent upon size, as per the canary in the coal mine example, but some might argue that the failure of a large firm might be a stronger signal of the size of potential danger. After government intervention in a market, large firms may take imprudent risks in the belief that they can depend on the government to intervene again in case of crisis. This situation can also arise in response to institutions becoming too complex or interconnected to quickly resolve.

⁹⁵ Comptroller of the Currency, Board of Governors of the Federal Reserve System, Federal Deposit Insurance Corporation, Thrift Supervision Office, and National Credit Union Administration, "Interagency Appraisal and Evaluation Guidelines," 75 *Federal Register* 77450, December 10, 2010, available at <http://federalregister.gov/a/2010-30913>.

⁹⁶ For more information on systemic risk and the impact of moral hazard, see CRS Report R41384, *The Dodd-Frank Wall Street Reform and Consumer Protection Act: Systemic Risk and the Federal Reserve*, by Marc Labonte.

Officially, prior to the DFA, creditors of non-depository institutions could go to bankruptcy court in the event of a failure. In bankruptcy court, similarly situated creditors are treated similarly, but are typically paid slowly and sometimes after costly litigation.⁹⁷ In contrast, depository institutions subject to the FDIC or similar regimes are handled administratively, which can be faster, can shield certain groups to mitigate systemic risk (e.g., depositors to prevent runs), and is potentially less costly to taxpayers. In an FDIC liquidation, a firm can expect leadership to be fired, shareholders interests to generally be subordinated to those of the taxpayers', and potentially FDIC-controlled reorganization, asset sales, or even the disaffirmation and repudiation of certain claims, with little judicial oversight.⁹⁸

How it Might Go Wrong

There has long been discussion of whether a firm would be able to secure funding from the government in the event of a failure (known colloquially as a “bailout”). The failure, bankruptcy, and lengthy, expensive rounds of litigation for Lehman Brothers, Inc. (an estimated \$1 billion spent over the three years since bankruptcy) may give pause to firms that might behave imprudently and still expect a rescue, but this warning may be confused by the subsequent rescue of AIG, which arguably exacerbated moral hazard and undermined market discipline to a greater degree than the first company rescued, Bear Stearns, since it established a pattern. The DFA has significant new measures to try to address moral hazard, as evidenced by recent downgrades of companies now perceived as unable to access government funds, but there is still considerable debate as to whether there would be government intervention in the event of another crisis.⁹⁹ Many argue that agreements with the federal government during the crisis were made under duress by those insisting that but for government funding, the disruption to the markets would pose a systemic risk to the economy. This argument, which can be expected to be repeated during the next crisis, will turn in part on whether policymakers believe changes made by the DFA would lead to an orderly resolution.

DFA makes non-depository institutions subject to a regime similar to the FDIC’s receivership and conservatorship facilities, though with many of the same guards against moral hazard in place.¹⁰⁰ One important difference, according to FDIC staff writing in *FDIC Quarterly*, is that while the FDIC must generally operate with a “least-cost requirement” spending the least amount of

⁹⁷ A notable exception is qualified financial contracts. For more information, see CRS Report R40530, *Insolvency of Systemically Significant Financial Companies (SSFCs): Bankruptcy vs. Conservatorship/Receivership*, by David H. Carpenter.

⁹⁸ For more information, see CRS Report R40530, *Insolvency of Systemically Significant Financial Companies (SSFCs): Bankruptcy vs. Conservatorship/Receivership*, by David H. Carpenter.

⁹⁹ Suzanne Kapner and Serena Ng. “Moody’s Downgrades BofA, Wells Fargo, Citi,” *The Wall Street Journal*. September 22, 2011.

¹⁰⁰ There is disagreement about whether creditors in different circumstances will appreciate the speed and orderly nature of these new resolution powers, or whether they will find the relatively decreased judicial oversight (and thereby the potential for similarly situated creditors to be treated dissimilarly) disturbing. This is in part because no non-financial firms have been resolved by the FDIC under these authorities, and rulemaking pursuant to Dodd-Frank is not yet complete. However, FDIC staff have written an article “The Orderly Liquidation of Lehman Brothers Holdings Inc. under the Dodd-Frank Act” in *FDIC Quarterly* (Vol. 5 No. 2 (2011): 31-49) describing how they would have resolved Lehman Brothers Holdings had Dodd-Frank been in place at the time of failure. One major component of the FDIC’s resolution regime to date has been the imposition of increased oversight upon institutions which are in danger of insolvency or illiquidity (as measured primarily by compliance with capital withholding requirements) even before default. Between 1995 and 2007, FDIC took steps to increase supervision and prepared to resolve 150 firms. Arguably in part due to these supervision actions, the FDIC only eventually had to resolve 56 of these institutions (37%).

taxpayer funds as practicable, this will not apply to systemically important firms, though the FDIC must still in general take care to act in the best interests of the insurance funds. The intent of this provision appears to be to allow a higher short run cost to government to attempt to avoid a longer run, more expensive intervention were other firms to fail despite the orderly liquidation.

FSOC's Perspective

As described in the “IV. Rulemaking During the 112th Congress” section of this report, the FSOC points to heightened prudential standards, concentration limits, and resolution plans as important newly authorized tools in the DFA for ensuring large organizations do not pose systemic risk. Heightened prudential standards will apply to bank holding companies with more than \$50 billion in assets¹⁰¹ as well as firms designated systemically important. Firms in this group¹⁰² will generally be regulated by the Federal Reserve and will be subject to requirements for capital, liquidity, and leverage. Concentration limits will prohibit mergers or acquisitions that result in a single firm holding greater than 10% of all financial firms’ liabilities, as well as caps on agreements with unaffiliated systemically important firms. Resolution plans, also sometimes referred to as “living wills,” are intended to facilitate resolution under the bankruptcy code or sale of the firm. If these measures do not forestall an eventual failure, the FSOC points to the orderly resolution authority that allows for special regulatory authorities to be used to avoid spreading of systemic risk. This power has the potential to improve market discipline by providing a credible, though untested, resolution authority.

Repo Market and Short Maturity Financing

Issue Area

The FSOC has analyzed another area of potential concern: short-maturity funding in general, and repurchase agreements in particular. Short-maturity funding refers to reliance on financing that generally must be renewed frequently, such as commercial paper or repurchase agreements. Heavy reliance on short-term debt can lead to bouts of financial instability if the potential counterparties become unwilling to renew or roll over the debt, a situation that arose during the recent financial crisis. In a repurchase (“repo”) agreement, two firms agree that one will sell a financial asset to the other today and repurchase the asset from the other in the near future. The difference between the initial sale price and the agreed upon repurchase price, known as the “repo rate,” is similar to an interest rate. By using securities as collateral, repurchase agreements facilitate the extension of low-cost short-term financing to holders of high-quality securities.

¹⁰¹ Which are presumed to be systemically important unless the FSOC establishes another standard.

¹⁰² As noted elsewhere in this report, the FSOC has not yet completed the establishment of procedures and criteria by which firms will be evaluated for systemic importance. However, the DFA and the 2011 FSOC annual report both include provisions or statements encouraging international coordination where appropriate. The Financial Stability Board, a coordinating body consisting financial regulators from 24 countries (including the United States), released a list of 29 firms the board would today impose heightened regulatory attention upon. More information is available at Financial Stability Board, “FSB announces policy measures to address systemically important financial institutions (SIFIs) and names initial group of global SIFIs,” November 4, 2011, available at http://www.financialstabilityboard.org/press/pr_111104cc.pdf

How it Might Go Wrong

Economist Gary Gorton has described how large investment banks had believed that repurchase agreements would generally be renewed and were viewed as a source of stable funds similar to deposits. In Gorton's view, the failure of Lehman Brothers cast doubts about the safety of similar investment banks. Fear caused counterparties to refuse to renew many repo agreements when they expired. This resulted in an unexpected lack of access to low-cost short-term financing. In Gorton's view, the failure to renew repos had the effect of a large and sudden withdrawal of resources from investment banks, similar to nineteenth century bank runs by depositors.¹⁰³

There is no formal regulator of repurchase agreements, although based on size considerations many of the central participants may eventually be designated as systemic by the FSOC. The Federal Reserve Bank of New York (FRBNY) is the federal regulator with the most interaction with the major participants in the repo market, traders in U.S. Treasury securities.¹⁰⁴ Repurchase agreements often use U.S. Treasury securities as collateral, although other bonds and securities that have deep markets and are generally fungible are also used. The broker dealers in U.S. Treasury securities markets form the hub of the repo market.

FSOC's Perspective

FSOC Chairman Timothy Geithner, in testimony before the House Committee on Financial Services on October 6, 2011, stated that the repo market (in addition to money market funds) is one of the biggest areas of concern;¹⁰⁵ turmoil in the market resulted in Federal Reserve liquidity support during the crisis of 2008.¹⁰⁶ In particular, the FSOC is concerned about collateral issues when non-Treasury assets are used. According to the FSOC annual report, they are concerned that these less-safe assets might lead to settlement failures and confidence issues, including the potential for runs.¹⁰⁷ Regulators currently have the authority to direct firms to alter the proportions or cap the amount of certain assets, and so they could require holders of repos to engage in them more or less frequently. Government standards for collateral or government insurance for balances might be two options to address these areas of concern. However, repurchase agreements are just one type of short-term wholesale funding; others include commercial deposits over the FDIC limit, other large checkable and time deposits such as money market mutual funds, and open market financial paper. If government standards or insurance are provided to the repo market to alleviate runs there, then some might argue that similar support be provided to other sources of short-maturity funding (such as commercial paper markets and money market funds) for similar reasons.

¹⁰³ Gary B. Gorton, *Slapped by the Invisible Hand: The Panic of 2007*, New York: Oxford UP, 2010.

¹⁰⁴ The technical term for these traders is "primary dealers."

¹⁰⁵ Testimony of Timothy F. Geithner, Secretary of the Treasury, in U.S. Congress, House Committee on Financial Services, *The Annual Report of the Financial Stability Oversight Council*, 112th Cong., 2nd sess., October 6, 2011, available at <http://financialservices.house.gov/UploadedFiles/100611geithner.pdf>.

¹⁰⁶ Financial Stability Oversight Council, *Annual Report*, Washington, DC, July 26, 2011, p. 46, available at <http://www.treasury.gov/initiatives/fsoc/Pages/annual-report.aspx>.

¹⁰⁷ *Ibid.*, p. 145.

Money Market Funds

Issue Area

Money market funds (MMFs) are mutual funds that invest in short-term¹⁰⁸ debt securities, such as repurchase agreements (described above), certificates of deposit, commercial paper (debt issued by commercial institutions), and U.S. Treasury instruments. Conceptually, MMFs offer investments to try to bridge the gap between liquid assets that do not earn a return and illiquid assets that promise higher potential earnings. As of June 9, 2011, there were \$2.7 trillion invested in MMFs, \$1.2 trillion (44%) of which were from households, not including pension funds.¹⁰⁹ Under normal conditions, almost all MMFs are structured to keep a stable \$1 per share net asset value (NAV). Growth in value, which would push the NAV over \$1, is returned to shareholders through dividends or kept as fees by the MMF.

How it Might Go Wrong

Some have argued that MMFs pose risks to financial stability because they may suddenly withdraw funds from or refuse to roll over debts to longer maturity dates of firms during a shock, exacerbating or causing a liquidity crisis.¹¹⁰ For example, The Reserve Fund, an MMF, dipped below \$1 per share in 2008 after writing down expected returns from Lehman Brothers Inc. to \$0. This is known as “breaking the buck,” and it led to a run on MMFs in part due to a lack of transparency of exposure to Lehman, but also due to investor capacity for quick withdrawal. Investors may have been surprised that the account they had been treating like a checking account was susceptible to losses. As investors pulled back, firms themselves pulled back to conserve funds in case they were faced with a run, leading to a general tightening of credit known as a liquidity crisis. In these situations, there is also a potential for a maturity date mismatch as MMFs might be forced to raise capital either by selling assets at a loss or finding additional investors on what would under other circumstances be unacceptable terms.¹¹¹

Money market mutual funds are primarily regulated by §2a-7 of the Investment Company Act of 1940. The SEC published final rules in early 2010 taking first steps toward addressing the issues described above. Those rules increased transparency through reporting MMFs’ holdings to the SEC, increased liquidity through shorter maturity dates and changes in the mix of assets, increases in the quality of portfolio securities and permitting a money market fund that had been or would imminently be valued at under \$1 per share (despite a stable NAV goal) to suspend redemptions to allow for the orderly liquidation of fund assets.¹¹² The SEC is contemplating

¹⁰⁸ Money Market Funds are required to hold a weighted average maturity of no longer than 60 days and in any case no longer than 13 months by rules promulgated under the authority of, and typically referred to as, §2a-7 of the Investment Company Act of 1940. This was shortened from 90 days by recent SEC rulemaking designed to promote liquidity.

¹⁰⁹ Board of Governors of the Federal Reserve System, “Flow of Funds Accounts of the Board of Governors of the Federal Reserve System,” June 9, 2011, available at <http://www.federalreserve.gov/releases/z1/current/data.htm>.

¹¹⁰ Christine Harper and Christopher Condon, “JPMorgan’s Staley Calls Money Funds ‘Systemic Risk,’” *Bloomberg*, January 30, 2009, available at <http://www.bloomberg.com/apps/news?pid=newsarchive>.

¹¹¹ Recent SEC rule changes allow MMFs to temporarily halt redemption during a liquidity crisis in order to liquidate assets in an orderly manner, but under a worst case scenario, even this may not protect against a systemic credit tightening, widening of yield spreads, fire sales, and eventual default.

¹¹² Mary L. Schapiro, chairman of the Securities and Exchange Commission, “Opening Remarks,” Money Market Funds and Systemic Risk Roundtable, Washington, DC, 10 May 2011, available at <http://www.sec.gov/news/speech/2011/spch051011mls.htm>. See also Securities and Exchange Commission, “Money Market Fund Reform,” March 4, (continued...)

additional rulemaking to further insulate financial markets from perceived vulnerability of MMFs to runs.

FSOC's Perspective

The FSOC has recommended several actions to address perceived structural vulnerabilities of money market funds. The FSOC points to MMFs' size and importance to liquidity in Europe and certain financial subsectors as evidence that they are especially important to address.¹¹³ The FSOC identifies investors' incentives and the fixed NAV as structural features which foster expectations of both stability and vulnerability to runs. Identifying what it concludes are structural vulnerabilities, the FSOC points to the inherent maturity mismatch risk and the sensitivity to variations in the expected amount available to depositors, as small as 0.5%, could cause a run. The FSOC also identifies the expectation of sponsor bank or government support as contributing to both moral hazard and volatility-inducing uncertainty. The FSOC has not made a formal recommendation, but along with the President's Working Group on Financial Markets has discussed both abandoning the stable NAV accounting system, subjecting MMFs to formal capital buffers or insurance requirements, or deterrents to redemption along with capital buffers as possible policy approaches to address perceived structural fragility.

Proposals to leave the stable NAV accounting standard have been met with very strong opposition from the financial services community,¹¹⁴ arguing that the \$3 trillion industry would collapse if institutional investors had to account for MMF holdings on a floating NAV basis due primarily to tax and mark-to-market implications. Some in this community have proposed privately-raised capital buffers as an alternative. Others, including those within the administration¹¹⁵ and consumer advocacy groups,¹¹⁶ have argued that the stable NAV implies safety on par with cash, and therefore attracts a larger than proportional share of risk averse retail investors, or investors who may be unaware that the funds are not FDIC insured, while also making MMFs brittle, prone to spread of shocks from point of failure to other firms, and pro-cyclical. Given that firms sponsoring MMFs have needed to intervene nearly 200 times to prevent MMFs from breaking the buck since their inception,¹¹⁷ some argue that some sort of third-party insurance should be used to

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2010, available at <http://federalregister.gov/a/2010-4059>.

¹¹³ European firms have a larger share of bank funding coming from non-depositor sources, such as MMFs. A broader discussion of this issue acknowledging this can be found at Financial Stability Oversight Council, *Annual Report*, Washington, DC, July 26, 2011, pp. 142-144, available at <http://www.treasury.gov/initiatives/fsoc/Pages/annual-report.aspx>.

¹¹⁴ "Groups Opposing a Floating NAV Requirement for Money Market Funds," The Investment Company Institute, October 5, 2011, available at http://www.ici.org/mmfs/snnav/10_mmfs_opposefloatingnav. Further materials are available http://www.ici.org/events/highlights/ci.conf_11_mm_summit_materials.print.

¹¹⁵ President's Working Group on Financial Markets (a group whose role over time will be taken over by the FSOC, and which is constituted by the Secretary of the Treasury, and the Chairmen of the Fed, SEC, and CFTC) published a report on Money Market Fund Reform Options, available at <http://www.treasury.gov/press-center/press-releases/Documents/10.21%20PWG%20Report%20Final.pdf>. The SEC has requested comments on the report at 75 *Federal Register* 68636, available at <http://federalregister.gov/a/2010-28177>.

¹¹⁶ Consumer Federation of America, April 25, 2011 comment letter to the SEC, available at <http://www.consumerfed.org/pdfs/CFAratingscommentletterApril2011.pdf>.

¹¹⁷ A Moody's report found that between 1972 and mid-2007, 145 firms would have been valued at under a \$1 NAV (would have "broken the buck") but for sponsor financial support. Between August 2007 and December 31, 2009, they found that an additional 36 money market funds required sponsor support. In times of financial stress, this funding guarantee may or may not be available, but this may not be reflected to investors clearly by a stable \$1 per share NAV. (continued...)

ensure liquidity. Proposals to regulate MMFs as banks¹¹⁸ or to require the private capitalization of an investment bank for the purpose of ensuring liquidity¹¹⁹ have also been discussed.

Housing and Mortgage Market Issues

Issue Area

The housing market refers to the way in which people finance their home, in addition to home prices. Roughly two-thirds of home owners have a mortgage on their property, which gives the creditor the right to foreclose on the property for persistent non-payment. There are well over 50 million residential mortgages in the United States; therefore, even a seemingly small change in the default rate, such as 1 percentage point, affects hundreds of thousands (or even millions) of Americans.

How it Might Go Wrong

At least four ongoing challenges are related to housing and mortgage markets. First, mortgage defaults are a significant source of the losses in the financial system itself. Second, turmoil in mortgage markets can further depress house prices and may cause more mortgage defaults, potentially exacerbating already-stressed markets. Third, home equity is a large component of household finances; the decline and stagnation of house prices may depress consumer spending and may dampen economic recovery. Finally, some observers have noted that recovery in several prior recessions was led by investment in residential construction, a path that seems unlikely under current circumstances because of the existing glut of unsold homes.¹²⁰

Several federal interventions are currently affecting mortgage markets. Treasury financial support of the mortgage GSEs, Fannie Mae and Freddie Mac, allows those firms to continue to purchase mortgages and supports a large percentage of new mortgages, including refinances of troubled loans.¹²¹ As part of the Troubled Asset Relief Program, Treasury signed agreements to pay mortgage servicers to modify more delinquent loans, and loans likely to default under certain circumstances. Participation in this program has not been as high as policymakers anticipated.

FSOC's Perspective

The FSOC's annual report states that the housing market continues to cause concern, but noted several signs of improvement. Although financial institutions remain exposed to mortgage-related assets, the FSOC reports that the capital buffer to absorb losses has improved in the system as a

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For more, see Shilling, Henry, Special Comment: Sponsor Support Key to Money Market Funds, Rep. no. 126231, Moody's Investors Service, August 9, 2010, available at http://www.alston.com/files/docs/Moody%27s_Report.pdf.

¹¹⁸ Group of Thirty, 2009, *Financial reform: a framework for financial stability*, Washington, DC: Group of Thirty, available at http://www.group30.org/images/PDF/Financial_Reform-A_Framework_for_Financial_Stability.pdf.

¹¹⁹ "Reforming Money Market Funds," Issue brief, The Squam Lake Group, January 14, 2011, available at <http://www.squamlakegroup.org/Squam%20Lake%20MMF%20January%2014%20Final.pdf>.

¹²⁰ Testimony of Mark Zandi, in U.S. Congress, Senate Committee on Banking, Housing, & Urban Affairs, *New Ideas for Refinancing and Restructuring Mortgage Loans*, 112th Cong., 2nd sess., September 14, 2011.

¹²¹ For more on this issue, see CRS Report R40800, *GSEs and the Government's Role in Housing Finance: Issues for the 112th Congress*, by N. Eric Weiss.

whole.¹²² Increased capital reduces the chances that further declines in house prices will cause banks and other financial institutions to reduce lending simultaneously in an effort to conserve assets. Two areas of continuing concern to the FSOC are the potential failure of private capital to return to mortgage securitization and that policymakers may withdraw support for GSEs at a sensitive time, resulting in another downward spiral of home prices.

Dollar as Reserve Asset

Issue Area

A “reserve currency” is a currency held in sizable quantities by foreign governments and central banks to safeguard against currency crises arising out of often volatile private capital flows, and to counter the impact of capital flows that would otherwise lead to unwanted changes in the countries’ exchange rates or interest rates.¹²³

How it Might Go Wrong

Were world governments and central banks to conclude that the dollar is no longer a reliable store of value, or that there existed a better store of value with similar liquidity, those organizations might begin to replace dollar-denominated assets with other assets. On the one hand, a gradual decline in the dollar as a reserve asset would likely lead to an increase in international prices in dollar terms, hurting American importers but benefiting exporters. On the other hand, an initially slow decline could accelerate into a fire sale, because creditors are faced with a prisoners’ dilemma wherein any given creditor is incentivized to get out as quickly as possible, while all creditors are better off if none do so.¹²⁴ A fire sale can also be caused by an unanticipated shock that forces holders of dollar-denominated assets (such as U.S. Treasuries) to sell at sharply reduced prices. To continue to roll over maturing debt, during this kind of dollar crisis, interest rates could rise making credit more expensive in dollar terms, which could lead to a wider financial crisis.

FSOC’s Perspective

The FSOC’s annual report notes a number of benefits that U.S. receives from the reserve status of the dollar. For example, reserve status contributes to the liquidity of the market for U.S. Treasuries (which reinforces the reason that the dollar is attractive to others as a reserve asset).¹²⁵ The reserve status of the dollar also contributes to its role as a safe harbor in times of financial instability, making it easier for the U.S. government to borrow on attractive terms despite otherwise unstable financial conditions. However, the FSOC notes that “achieving long run sustainability of the national budget is crucial to maintaining global market confidence in U.S.

¹²² Financial Stability Oversight Council, *Annual Report*, Washington, DC, July 26, 2011, p. 9, available at <http://www.treasury.gov/initiatives/fsoc/Pages/annual-report.aspx>.

¹²³ Individuals also contribute to the dollar as a reserve currency by choosing to borrow in dollar assets, or to use it in private transactions. For more information on the economic and policy issues related to the dollar, see CRS Report RL34582, *The Depreciating Dollar: Economic Effects and Policy Response*, by Craig K. Elwell.

¹²⁴ Dixit, Avinash, and Barry Nalebuff, “Prisoners’ Dilemma,” *The Concise Encyclopedia of Economics*, Library of Economics and Liberty, 2008, available at <http://www.econlib.org/library/Enc/PrisonersDilemma.html>.

¹²⁵ Financial Stability Oversight Council, *Annual Report*, Washington, DC, July 26, 2011, p. 34, available at <http://www.treasury.gov/initiatives/fsoc/Pages/annual-report.aspx>.

Treasury securities and the financial stability of the United States.”¹²⁶ In the extremely unlikely event of a drastic deterioration of confidence in the U.S. fiscal situation, the market for U.S. Treasuries could become illiquid, and thus the reserve status of the dollar could be imperiled.

Municipal Debt Market

Issue Area

The finances of state and local governments tend to be pro-cyclical. For example, state governments typically operate under the constraints of balanced budget requirements, which may enhance economic booms and magnify economic busts.¹²⁷ Economists often point out that several types of government activities form automatic stabilizers because spending automatically rises in recessions and effective taxes automatically fall, but this presupposes that budget deficits are permitted during recessions. If a recession is deep enough or lasts long enough to threaten the finances of states and municipalities, then these institutions may raise taxes, reduce employment, and cut spending during the recession. Such actions in the aggregate tend to exacerbate a recession. Financial turmoil in 2007-2009 may have been the kind of circumstance in which the fiscal health of state and municipal governments may exacerbate a recession.

How it Might Go Wrong

Some state and local governments face a short-term problem and a long term problem. In the short run, the depth of the recession has caused turmoil in municipal debt markets, drained their rainy day funds, and strained their budgets. In the long run, bond investors are realizing that several governments may have commitments to pensions and projects that are not matched by expected long run revenues. However, the FSOC annual report focused primarily on the liquidity of the bond market for municipalities, not states.

FSOC's Perspective

The FSOC addressed concerns about the mechanics of the municipal bond market itself.¹²⁸ Prior to the crisis, many governments chose to rely on funding mechanisms with short-term exposures. For example, auction rate securities could potentially result in suddenly higher interest rates to be paid on government bonds. One form of variable rate bond includes a “put” feature, in which investors have the right to put the bond back to the issuer if they are unable to find another purchaser. These variable rate demand obligations (VRDOs) can put stress on governments if market liquidity dries up. That potential stress was realized during the crisis when financing costs of some municipal governments spiked. In 2008 and 2009, many municipal bond issuers replaced their existing variable-rate VRDOs with uninsured VRDOs supported by liquidity facilities for three years. If financial markets are disrupted again, then renewing these bonds and facilities may be difficult in the future.

¹²⁶ Ibid., p.4.

¹²⁷ According to some definitions, mere pro-cyclicality would not be systemic risk. However, municipal and state debt markets can spread and magnify shocks, which meets the criteria used by the FSOC in describing financial instability.

¹²⁸ Financial Stability Oversight Council, *Annual Report*, Washington, DC, July 26, 2011, p. 38, available at <http://www.treasury.gov/initiatives/fsoc/Pages/annual-report.aspx>.

In response to municipal debt problems during the crisis, Congress enacted Build America Bonds (BAB), which temporarily changed the tax laws to make municipal debt more attractive.¹²⁹ The FSOC believes that the BABs succeeded in broadening the retail investment base in municipal securities and resulted in a narrowing spread between interest paid by municipal government and comparable U.S. Treasuries. However, the FSOC expressed concern that the expiration of the BABs program could be a problem. The FSOC believes that other long term structural problems related to the investor base for municipal securities remain.

Sovereign Debt Issues in Europe

Issue Area

In introductory finance classes, sovereign debt of the governments of developed economies is often characterized as a risk-free asset. Recent events in Europe have cast serious doubt on this simplifying assumption. Changes in the perceived risk of the debt of sovereigns, such as Greece, Italy, Portugal, Ireland, (or even the United States), are potential threats to financial stability in part because many financial regulators and financial institutions treat those debts as if they were risk-free. As a result, financial institutions and financial systems do not typically retain capital buffers against the possibility of sovereign debt restructuring, or in the extreme a sovereign default. The mere change in the perceived risk of sovereign debt can cause people to try to avoid institutions and markets with large exposure to that country's debt. At a minimum, exposed institutions may find it difficult to find counterparties for new transactions and may suffer withdrawals, or refusals to renew loans, from existing counterparties. The resulting financial instability can cause credit to dry up, interest rates to rise, and may magnify the financial difficulties of the sovereign experiencing the financial stress. Although the direct exposure of U.S. banks to currently troubled European sovereign debt appears to be limited, it is difficult to assess indirect exposures.¹³⁰

How it Might Go Wrong

Sovereign debt is both an ability to pay issue and a willingness to pay issue. Measures of ability to pay often focus on structural conditions, such as the sustainability of debt-to-GDP ratios under reasonable assumptions of future interest rates and economic growth. Willingness to pay is typically harder to gauge because policies to address long run fiscal problems may be domestically unpopular. In some cases, even external rescue options like the European Financial Stability Facility, known colloquially as the "enhanced European bailout fund," may potentially be held up based on willingness to pay in one or more member countries.

Because there is no formal way to address a sovereign default (no international bankruptcy law that applies to sovereigns), holders of sovereign debt face several coordination issues. The creditors of a country face a prisoners' dilemma; they may all be more likely to be paid if they give the debtor more time, or restructure some of the debt, but each has an incentive to race to get repaid first, or to demand collateral for additional aid.¹³¹ Examples of this coordination problem

¹²⁹ For more on this issue, see CRS Report R40523, *Tax Credit Bonds: Overview and Analysis*, by Steven Maguire.

¹³⁰ For more on this issue, see CRS Report R41167, *Greece's Debt Crisis: Overview, Policy Responses, and Implications*, coordinated by Rebecca M. Nelson.

¹³¹ For more on the economic concept described here, see Hardin, Garrett, "Tragedy of the Commons," *The Concise Encyclopedia of Economics*, Library of Economics and Liberty, 2008, available at <http://www.econlib.org/library/Enc/> (continued...)

would be the reported demand by Finland to receive collateral for its loans to Greece,¹³² the reported shortening of maturities offered by U.S. money market funds to European banks that hold Greek sovereign debt, and the reported drain of deposits from the Greek banking system.¹³³ As a result, the Greek government is reportedly relying on financial support from other sovereigns and central banks, rather than markets, for additional funding.

FSOC's Perspective

The FSOC presents data on general debt levels among advanced economies, along with measures of the riskiness of the debt. Generally, the financial crisis has resulted in increased sovereign debt-to-GDP ratios, and many countries having higher costs of servicing their debt (the United States is a notable exception, as it is generally considered a safe haven).¹³⁴ The size of a country's net external liabilities, the size of the financial sector relative to GDP, and the share of government debt held externally are other important considerations. The FSOC notes that the increased cost of insurance for Greek, Irish, and Portuguese issued debt (the spreads on the credit default swaps) imply that those countries are an increased risk.

Policymakers have responded in a number of ways. In the United States, bank regulators claim that the direct exposure of U.S. banks to Europe is small but warn about possible indirect effects. The European Central Bank has been buying sovereign debt, which may have eased funding problems. European governments have created a fund to recapitalize their banks, which may potentially reduce the risk of contagion and other indirect effects from affecting the United States. Internationally, bank regulators are negotiating the treatment of sovereign debt for capital purposes as part of more general coordination of financial regulatory policies.

Capital Standards

Issue Area

Capital standards are prudential regulatory requirements that ensure that firms will be able to absorb unexpected losses by describing the minimum amount and character of a bank's excess assets over and above liabilities. If regulators set these standards too loosely, funds that should be available to protect against unexpected losses could instead be tied up in illiquid investments. Setting the standards too tightly may hamstring financial intermediation and economic growth. If regulators adopt differing standards, then regulated entities may attempt regulatory arbitrage by spinning off non-bank entities, or by seeking out a regulator that will be more lenient.

(...continued)

TragedyoftheCommons.html.

¹³² Robinson, Frances, and Marcus Walker, "New Rift Over Terms Threatens Greece Aid," *The Wall Street Journal*, 20 Aug. 2011, available at <http://online.wsj.com/article/SB10001424053111903639404576518030997921832.html>.

¹³³ "Dollars to the European Rescue: As Central Banks Help French Banks, We Get a Phone Call," *The Wall Street Journal*, Sept. 16, 2011, available at <http://online.wsj.com/article/SB10001424053111903927204576570460018516014.html>.

¹³⁴ Financial Stability Oversight Council, *Annual Report*, Washington, DC, July 26, 2011, p. 43, available at <http://www.treasury.gov/initiatives/fsoc/Pages/annual-report.aspx>.

How it Might Go Wrong

Several concurrent efforts are in place to mitigate the risk of undercapitalized market participants. One of the most important ways regulators assess the appropriate amount of capital is by requiring that more capital be provided when liabilities are riskier. Known as risk-based capital standards, these requirements include minimum liquidity, quality, maturity, and concentration standards, and require that varying percentage weights be applied for increasing risks based on the type of security offered and the type of borrower (such as commercial, sovereign, financial, or retail). While some view capital requirements as appropriately rising in the near term,¹³⁵ others oppose rapid implementation of these proposals, pointing to the fragility of the banking system and arguing that higher capital standards are valuable in general, but are already required by international standards being phased in over the next several years.¹³⁶

FSOC's Perspective

The FSOC has identified strengthened capital and liquidity requirements as the core elements of enhanced standards for large, complex banking organizations and entities regulated by the Fed.¹³⁷ The FSOC's annual report also described progress by the CFTC and other the federal regulators in issuing proposed rules on capital and margin requirements for swap and security-based swap dealers and major participants of these markets requiring either the use of clearinghouses or margin requirements. While capital requirements already apply in swap and derivatives markets, the CFTC has proposed capital requirements for entities under its jurisdiction.¹³⁸ The FSOC annual report describes in positive terms the Collins Amendment, which establishes that capital requirements applying to insured banks will serve as a floor for any capital requirements the agencies may establish for banks, bank holding companies, and non-bank financial companies supervised by the Federal Reserve.¹³⁹

The FSOC identifies several remaining challenges in the capital requirements arena. First, the FSOC indicates that the wider set of non-bank financial firms soon to be subject to capital, liquidity, and risk management standards may stretch the resources of regulators.¹⁴⁰ Investment banks and swap dealers will likely bear increased compliance costs as prudential regulations and requirements for transparency are implemented. The FSOC also sees international bank regulatory standards, while positive from its perspective, as significantly more complex and detailed than those in the United States, potentially leading to different regulatory regimes imposing redundant, overlapping data collection, reporting, and monitoring costs on firms. This

¹³⁵ Testimony of Joseph Stiglitz, in U.S. Congress, Senate Committee on Banking, Housing and Urban Affairs, Subcommittee Financial Institutions and Consumer Protection, *Debt Financing the Domestic Financial Sector*, hearings, 112th Cong., 2nd sess., August 3, 2011, available at http://banking.senate.gov/public/index.cfm?FuseAction=Hearings.Testimony&Hearing_ID=8b4ef61b-f443-46f0-9d6b-cdaff5a3808b&Witness_ID=48edbc5d-a349-4124-ad96-63d3b181bc5e.

¹³⁶ Testimony of Eugene A. Ludwig in *ibid*, available at http://banking.senate.gov/public/index.cfm?FuseAction=Hearings.Testimony&Hearing_ID=8b4ef61b-f443-46f0-9d6b-cdaff5a3808b&Witness_ID=af0b2eac-01f7-4124-af96-8197b3e1a2f0.

¹³⁷ Financial Stability Oversight Council, *Annual Report*, Washington, DC, July 26, 2011, p. 112, available at <http://www.treasury.gov/initiatives/fsoc/Pages/annual-report.aspx>.

¹³⁸ *Ibid.*, pp.115-130.

¹³⁹ The Collins amendment can be found at P.L. 111-203 §171.

¹⁴⁰ Financial Stability Oversight Council, *Annual Report*, Washington, DC, July 26, 2011, p. 14, available at <http://www.treasury.gov/initiatives/fsoc/Pages/annual-report.aspx>.

could lead to regulatory arbitrage, wherein firms search for the least burdensome or expensive jurisdictions in which to operate, and some are concerned about a regulatory race to the bottom.

Exchange Traded Funds

Issue Area

Exchange Traded Funds (ETF) are bundles of assets like mutual funds, except that they track an entire index of assets, such as the S&P 500, or a sector or category like energy stocks, currencies, or commodities. They are popular as instruments of diversification, allowing investors to purchase hundreds of individual stocks with one trade fee. They are also popular because they allow an investor to buy or sell at dynamic market prices at any time during the day instead of being limited to closing bell prices as with some other diversification methods. As their name implies, ETFs are traded on exchanges like the New York Stock Exchange, making them widely available. Since their introduction in 1990, ETFs have seen two primary innovations in the index of assets purchased. These innovations include the advent of “active” ETFs, which might hold only an “optimized” subset of an index of assets, or which might rent out ETF-owned assets.¹⁴¹ Another innovation is the advent of “synthetic” ETFs, which avoid purchasing some or all of the index assets, instead buying only insurance¹⁴² from third parties. This insurance pays the ETF, mimicking the returns had the ETF genuinely owned each asset on the index. The total value of ETFs was \$1.1 trillion in July 2011.¹⁴³

How it Might Go Wrong

The evolving practices of the use of active trading and synthetic positions reduce costs and improve returns for ETFs, but some have argued that they do so at risk to their investors, who may initially be drawn toward typically safer investments of a diverse portfolio. Synthetic or actively traded ETFs are by definition less diverse, and arguably have an increased potential for volatility, and therefore may transmit unrecognized risk to the investor. Because ETFs “rent out” the assets investors are paying them to hold, the ETFs require collateral from borrowers to ensure repayment. But these borrowers have an incentive to provide the lowest quality, least liquid securities that the ETF will accept as collateral.¹⁴⁴ ETFs would then face a liquidity risk in that their investors can demand to cash out but ETFs can’t sell the borrowed asset easily, a

¹⁴¹ ETFs generate fees by loaning assets to others, but become exposed to risks of that borrower going out of business (“counterparty risk”) or of missing an opportunity to sell an asset declining in value. ETFs can recall the loaned assets in some cases, but depend on the borrower returning it quickly.

¹⁴² Technically derivative swap contracts, or swaps of benefits from one contract with another. For more on this issue, see testimony of Eileen Rominger, Director, Division of Investment Management, Securities and Exchange Commission in U.S. Congress, Senate Committee on Banking, Housing, and Urban Affairs, Subcommittee on Securities, Insurance and Investment, *Market Microstructure: Examination of Exchange-Traded Funds*, 112th Cong., 2nd sess., October 19, 2011, available at http://banking.senate.gov/public/index.cfm?FuseAction=Hearings.Testimony&Hearing_ID=ad4fdb9-d589-4ac9-8829-0edf1ad8dc8d&Witness_ID=6920b710-c9f0-4d51-a50a-3e2699335eb6.

¹⁴³ Board of Governors of the Federal Reserve System, Flow of Funds Accounts of the Board of Governors of the Federal Reserve System, June 9, 2011, available at <http://www.federalreserve.gov/releases/z1/current/data.htm>. This data is drawn in part from submissions from the Investment Company Institute, which makes some of its data available at <http://members.ici.org/stats/etfdata.xls>.

¹⁴⁴ This can occur with mutual funds and other assets as well, though some argue a typical ETFs investor may not understand the nature of the derivative position a synthetic ETF is taking, and may therefore misprice the risk.

counterparty risk in that the borrower may go out of business, and a collateral risk in that the collateral provided by the borrower may be worth less given the downturn prompting the sale in the first place. These events are more likely to occur during a systemic financial crisis, and if they do, the ETF may not be able to repay investors on demand. ETF interests may not be aligned with those of its investors in this case, and particularly where a synthetic ETF has hedged positions with insurance sold by affiliate companies.¹⁴⁵ The Investment Company Act of 1940 restricts this relationship, but only about 90% of ETFs are covered by it and European firms may transmit this exposure to American counterparties in spite of it, even those entirely unrelated to ETFs.¹⁴⁶ A similar requirement that 85% of holdings be in near-liquid, quickly redeemable assets is intended to mitigate some liquidity risk. The SEC has indicated that it is studying the use of derivatives by ETFs and that it will not approve new synthetic ETFs until it finishes that study, though it has not provided an estimated date of completion.¹⁴⁷

FSOC's Perspective

According to the FSOC, ETFs might threaten financial stability most easily through “liquidity risk.” This might be through the risk of runs, wherein investors rush for the exits and depress prices more than otherwise warranted, or through the risk of borrowers of ETF assets (those who have “rented out” assets) not being able to return them promptly, leading to decreased liquidity or even fire sales. The FSOC notes that while in United States the ETF market is comprised of only 3% synthetic ETFs, European ETFs are nearly 50% synthetic. The FSOC notes that despite the lower relative proportion of synthetic positions in the United States, markets here may still suffer from contagion if ETF markets in Europe become unstable.¹⁴⁸

Some point to the evaporation of liquidity during a particular extremely brief period of sharp decline (known as the flash crash of May 2010) as evidence that in a crisis, ETFs may face severe redemption pressure.¹⁴⁹ Another criticism of ETFs centers on sometimes-opaque bundles of assets held by firms. Additional disclosure rules are one frequently-cited policy solution, as are more aggressive liquidity rules, or requirements that assets more closely reflect an entire index. On the other hand, one could argue that transparency makes runs more likely in some situations, and that assets genuinely held by ETFs can themselves degrade, if less dramatically than some derivative positions. These proposals may arguably enhance the goal of market discipline however, as transparency transmits price information more accurately and allows investors to pressure firms.

¹⁴⁵ Technically, this is referred to as a principal-agent problem.

¹⁴⁶ Financial Stability Oversight Council, *Annual Report*, Washington, DC, July 26, 2011, p. 60, available at <http://www.treasury.gov/initiatives/fsoc/Pages/annual-report.aspx>.

¹⁴⁷ Testimony of Eileen Rominger, Director, Division of Investment Management, Securities and Exchange Commission in U.S. Congress, Senate Committee on Banking, Housing, and Urban Affairs, Subcommittee on Securities, Insurance and Investment, *Market Microstructure: Examination of Exchange-Traded Funds*, 112th Cong., 2nd sess., October 19, 2011, available at http://banking.senate.gov/public/index.cfm?FuseAction=Hearings.Testimony&Hearing_ID=ad4fdb9-d589-4ac9-8829-0edf1ad8dc8d&Witness_ID=6920b710-c9f0-4d51-a50a-3e2699335eb6.

¹⁴⁸ Financial Stability Oversight Council, *Annual Report*, Washington, DC, July 26, 2011, pp. 66-67, available at <http://www.treasury.gov/initiatives/fsoc/Pages/annual-report.aspx>.

¹⁴⁹ Michelle Price, “In Case of ETF Emergency: A Number of Extraordinary Market Events, Known as Flash Crashes, Highlight the Complex Nature of ETF Liquidity,” *The Wall Street Journal*, June 22, 2011, available at <http://online.wsj.com/article/SB10001424052702303745304576356972544464258.html>

Accounting Measures of Asset Values

Issue Area

Accounting standards establish a common language to report and compare financial statements. The FSOC is supposed to include an assessment of accounting standards in its annual report.¹⁵⁰ Accounting standards can affect financial stability through several channels. Regulators depend on accounting standards to monitor and regulate the balance sheets of firms, including leverage ratios and minimum capital requirements. Other financial firms and investors attempt to monitor the financial health of potential business partners and other counterparties through their financial reporting.

How it Might Go Wrong

Accounting standards prevailing at the time of the financial crisis may have contributed to its intensity by preventing financial regulators from policing the leverage of financial institutions, and by causing some financiers to panic if they could not identify with confidence those firms that were most exposed to mortgage-related losses.

Accounting standards are promulgated by a non-governmental organization, the Financial Accounting Standards Board; however, the SEC's Office of the Chief Accountant plays a role in making sure accounting standards are appropriate. Furthermore, the bank regulators issue rules that govern the application and interpretation of accounting standards for insured depositories.

FSOC's Perspective

The FSOC's annual report discussed four recent developments in accounting that the FSOC believes may enhance financial stability. First, banks will be required to provide consolidated assets on balance sheets (ASC 860 and ASC 810) that include securitized assets in variable interest entities. Off-balance sheet entities were believed to have contributed to the financial crisis by making it difficult for people to know which firms were exposed to losses through securitization. Second, the international banking regulatory agreements will establish a leverage ratio that applies to both on-balance sheet and off-balance sheet assets.¹⁵¹ Third, these agreements require that risk based capital requirements for banks include coverage of market risk for structured credit (one form of securitization). Fourth, insurance regulators are updating their treatment of the ratings of mortgage-backed securities held by insurance firms subject to risk-based capital requirements.¹⁵²

Another channel through which accounting standards may affect financial stability is through requirements for marking to market. In some circumstances, accounting standards may require

¹⁵⁰ P.L. 111-203 §112(A)(2)(d).

¹⁵¹ These international agreements are known as the Basel III accords. Negotiated at the Bank of International Settlements in Basel, Switzerland, these accords require national legislative or regulatory action to implement, but usually also establish broad norms for international regulation. If these norms are breached, in the extreme case, countries may be excluded from transactions with members in good standing. The DFA included anti-evasion provisions intended ensure that even without Basel III implementation, there would be less incentive to leave the U.S. jurisdiction or otherwise avoid supervision.

¹⁵² Financial Stability Oversight Council, *Annual Report*, Washington, DC, July 26, 2011, p. 73, available at <http://www.treasury.gov/initiatives/fsoc/Pages/annual-report.aspx>.

firms to recognize losses for drops in market prices, even though the firm does not intend to sell the asset at the current time, and the drop in market price may be perceived as temporary. Some have accused mark-to-market accounting of contributing to the intensity of price declines because some firms may be forced to sell assets following mark-to-market losses.¹⁵³ Others argue that mark-to-market is a stabilizer because it prevents firms from hiding and building up their true losses.¹⁵⁴ The FSOC annual report provides several examples of policymakers reinforcing mark-to-market, rather than retreating from it.¹⁵⁵ For example, money market mutual funds must provide a shadow market-to-market NAV (see above). Also, those international regulatory agreements require disclosure of mark-to-market counterparty risk.

VI. FSOC Recommendations

The FSOC was required by the DFA¹⁵⁶ to report recommendations to the Congress annually that enhance the integrity, competitiveness and stability of U.S. financial markets, promote market discipline, and maintain investor confidence. Although the FSOC's annual report does include recommendations of this nature related to heightened risk management, structural vulnerabilities, housing finance, and domestic and international financial reform, all of the recommendations are general in nature, and avoid making requests for specific congressional action. The following discussion summarizes the FSOC recommendations but does not offer substantive analysis due to the generic nature of the recommendations.

Heightened Risk Management

The FSOC included five recommendations for actions by financial institutions, market participants, and regulators. First, FSOC recommends that financial institutions “construct robust capital, liquidity, and resolution plans,” something the Fed found lacking in a recent round of stress tests.¹⁵⁷ Second, market participants should “bolster resilience to unexpected interest rate shifts” by mitigating their exposure to interest rate risk. Third, bankers should maintain discipline

¹⁵³ Newt Gingrich, “Suspend Mark-To-Market Now!: The One Regulatory Action That Will Calm Our Markets,” *Forbes.com Op-Ed*, Forbes, September 29, 2008, available at http://www.forbes.com/2008/09/29/mark-to-market-oped-cx_ng_0929gingrich.html. Also, as cited by Gingrich: Brian S. Wesbury and Robert Stein, “Mark-to-Market Mayhem,” *Economic Commentary*, September 25, 2008, First Trust Portfolios, available at http://www.ftportfolios.com/Commentary/EconomicResearch/2008/9/25/mark-to-market_mayhem. Another prominent example included Forbes, Steve, “Obama Repeats Bush’s Worst Market Mistakes: Bad Accounting Rules Are the Cause of the Banking Crisis,” *The Wall Street Journal*, March 6, 2009, available at <http://online.wsj.com/article/SB123630304198047321.html>.

¹⁵⁴ This issue is touched on in Norris, Floyd, “Bankers Say Rules Are the Problem,” *The New York Times*, March 12, 2009, available at <https://www.nytimes.com/2009/03/13/business/economy/13norris.html>.

¹⁵⁵ Financial Stability Oversight Council, *Annual Report*, Washington, DC, July 26, 2011, pp. 51 and 73, available at <http://www.treasury.gov/initiatives/fsoc/Pages/annual-report.aspx>.

¹⁵⁶ P.L. 111-203 §112(2)(N)(vi).

¹⁵⁷ After the Supervisory Capital Assessment Program (SCAP) was used to evaluate firms requesting an exit from the TARP program, some called for ongoing, government-administered stress tests. The Comprehensive Capital Analysis and Review is intended to be a forward-looking stress test that focuses on capital planning. As such, firms can indicate they plan to purchase certain assets or sell certain assets, though the test includes an adverse scenario where some riskier assets decline in price in addition to other factors. For more information, see Board of Governors of the Federal Reserve System, “Untitled Press Release” regarding the completion of the Comprehensive Capital Analysis and Review (CCAR), its cross-institution study of the capital plans of the 19 largest U.S. bank holding companies, press release, March 18, 2011, available at <http://www.federalreserve.gov/newsevents/press/bcreg/20110318a.htm>.

in credit underwriting standards. Fourth, issuers of novel financial products and investors in those products should “employ appropriate due diligence for emerging financial products.” The FSOC states that while it encourages innovation, it discourages regulatory arbitrage. And fifth, regulators and market participants should “keep pace with competitive, technological, and regulatory market structure developments.”¹⁵⁸

Structural Vulnerabilities

The FSOC recommends changes to the tri-party repo market, money market funds, and in mortgage servicing. In one of the more specific recommendations, the FSOC recommends that in order to eliminate most intraday credit exposure and improve collateral practices, the regulatory community, working with the New York Fed-organized, private sector Tri-Party Repo Infrastructure Reform Task Force, quickly “enhance dealer liquidity risk management practices,” address investor run-risk, and mitigate potential dealer default. In the FSOC’s view, the reforms should result in virtually no intraday credit exposures of clearing banks to borrowers.

The FSOC also recommends that the FSOC itself and the SEC “implement structural reforms to mitigate run risk in money market funds,” by continuing to consider approaches to limit money market fund run risk especially in the areas of floating net asset value accounting, capital buffers, and deterrents to redemption paired with capital buffers.

Finally, the FSOC recommends that regulators “improve the overall quality of mortgage servicing by establishing national mortgage servicing standards and servicer compensation reform.” FSOC recommends national standards to ensure quality and responsiveness, to align incentives, and to improve transparency. FSOC also notes that servicing compensation is inappropriate in some cases because borrowers in default require much more costly interventions and customer service than those in good standing, recommending that federal agencies continue to consider alternatives.

Housing Finance

The FSOC recommends that the U.S. system of housing finance be reformed so that it relies on more stable forms of funding. However, the FSOC warns that reform efforts could damage currently fragile markets if the needed reforms are enacted too soon, or inappropriately. FSOC recommends that regulators and HUD continue to work toward the exit the government from the housing market, and that Congress pass housing finance reform that does not destabilize the housing market. FSOC also recommends that national standards be set for mortgage servicing.

Reform Implementation

Domestically, the FSOC recommends continued coordination among regulators in implementing the DFA. The FSOC also identifies financial resources as an impediment to successful workforce management and monitoring systems.

¹⁵⁸ Financial Stability Oversight Council, *Annual Report*, Washington, DC, July 26, 2011, pp. 11-12, available at <http://www.treasury.gov/initiatives/fsoc/Pages/annual-report.aspx>.

Internationally, the FSOC recommends changes in several areas to improve the consistent application of regulatory standards globally, though none of the recommendations are offered for congressional action. With regard to capital and liquidity standards, the FSOC recommends continued analysis within the international regulatory framework of the size and composition of additional capital requirements for the largest global institutions, implementation processes for liquidity standards, and of asset weighting standards. FSOC members have supported the Financial Stability Board, an international financial body composed of finance ministers, central bankers and regulators, in efforts to develop cooperative guidelines for regulation of large, globally active financial institutions.

In derivatives markets, the FSOC describes some areas already addressed, such as the standardized clearing of derivatives that are not traded on exchanges (over-the-counter derivatives). Internationally, the FSOC indicates that there has been agreement that while some over-the-counter transactions should be allowed, they should require higher capital standards. They identify continuing areas of work in both trade data repositories and in central counterparty and margin requirements for non-centrally cleared swaps and security-based swaps.

The FSOC also pointed to progress on an international infrastructure agreement for principles of regulation of financial market utilities.¹⁵⁹ These include strengthened governance, transparency, and risk management practices.

¹⁵⁹ Committee on Payment and Settlement Systems and the Technical Committee of the International Organization of Securities Commissions of the Bank of International Settlements released the “Principles for financial market infrastructures” for public comment. The comments were due in July 2011, available at <http://www.bis.org/publ/cpss94.htm>

Appendix A. Glossary of Terms

This glossary has been compiled from several earlier CRS reports, the FCIC report, the CFTC and SIFMA websites, and from other sources.

Affiliate—A corporate relationship of control. Two companies are affiliated when one owns all or a large part of another, or when both are controlled by a third (holding) company (see subsidiary). All subsidiaries are affiliates, but affiliates that are less than 50% controlled are usually not treated as subsidiaries.

Asset-backed security—A bond that represents a share in a pool of debt obligations or other assets. The holder is entitled to some part of the repayment flows from the underlying debt. (See “securitization.”)

Bank holding company—A business incorporated under state law, which controls through equity ownership (“holds”) one or more banks and, often, other affiliates in financial services as allowed by its regulator, the Federal Reserve. On the federal level, these businesses are regulated through the Bank Holding Company Act.

Bank Holding Company Act—The federal statute under which the Federal Reserve regulates bank holding companies and financial holding companies (FHC). Besides the permissible financial activities enumerated in the Gramm-Leach-Bliley Act (P.L. 106-102), the law provides a mechanism between the Federal Reserve and the Department of the Treasury to decide what is an appropriate new financial activity for FHCs.

Blue sky laws—State statutes that govern the offering and selling of securities.

Broker/dealer—An individual or firm that buys and sells securities for itself as well as for customers. Broker/dealers are registered with the Securities and Exchange Commission.

Bubble—Self-reinforcing process in which the price of an asset exceeds its fundamental value for a sustained period, often followed by a rapid price decline. Speculative bubbles are usually associated with a “bandwagon” effect in which speculators rush to buy the commodity (in the case of futures, “to take positions”) before the price trend ends, and an even greater rush to sell the commodity (unwind positions) when prices reverse.

Capital—Assets minus liabilities; what a firm owns minus what it owes. Regulators often require financial firms to hold minimum levels of capital.

Capital requirements—Capital is the owners’ stake in an enterprise. It is a critical line of defense when losses occur, both in banking and nonbanking enterprises. Capital requirements help assure that losses that might occur will accrue to the institution incurring them. In the case of banking institutions experiencing problems, capital also serves as a buffer against losses to the federal deposit insurance funds.

Capital Purchase Program—Initiative under the Troubled Asset Relief Program providing financial assistance to U.S. financial institutions through the purchase of senior preferred shares in the corporations on standardized terms.

Charter conversion—Banking institutions may, with the approval of their regulators, switch their corporate form between: commercial bank or savings institution, National or State charter, and to stockholder ownership from depositor ownership. Various regulatory conditions may encourage switching.

Clearing Organization—An entity through which futures and other derivative transactions are cleared and settled. A clearing organization may be a division or affiliate of a particular exchange, or a freestanding entity. Also called a clearing house, multilateral clearing organization, or clearing association.

Collateralized debt obligation (CDO)—A bond created by the securitization of a pool of asset backed securities.

Collateralized mortgage obligation (CMO)—A multiclass bond backed by a pool of mortgage pass-through securities or mortgage loans.

Commercial bank—A deposit-taking institution that can make commercial loans, accept checking accounts, and whose deposits are insured by the Federal Deposit Insurance Corporation. National banks are chartered by the Office of the Comptroller of the Currency; state banks, by the individual states.

Commercial Paper Funding Facility Emergency Program—Created by the Federal Reserve in 2008, this program purchased three-month unsecured and asset-backed commercial paper from eligible companies.

Commodity Futures Modernization Act of 2000 (CFMA, P.L. 106-554, 114 Stat. 2763)—Overhauled the Commodity Exchange Act to create a flexible structure for the regulation of futures and options trading, and established a broad statutory exemption from regulation for OTC derivatives. Largely repealed by the Dodd-Frank Act.

Community Reinvestment Act 1977—A federal law which encouraged depository institutions to make loans and provide services in the local communities in which they take deposits.

Consolidated Supervised Entities program—A Securities and Exchange Commission program created in 2004 and terminated in 2008 that provided voluntary supervision for the five largest investment bank conglomerates.

Conservatorship—When an insolvent financial institution is reorganized by a regulator with the intent to restoring it to an ongoing business.

Counterparty—The opposite party in a bilateral agreement, contract, or transaction, such as a swap.

Credit Default Swap (CDS)—A tradeable contract in which one party agrees to pay another if a third party experiences a credit event, such as default on a debt obligation, bankruptcy, or credit rating downgrade.

Credit Rating Agency—Private company that evaluates the credit quality of securities and provides ratings on those securities; the largest are Fitch Ratings, Moody's Investors Service, and Standard & Poor's.

Credit Risk—The risk that a borrower will fail to repay a loan in full, or that a derivatives counterparty will default.

Credit union—A nonprofit financial cooperative of individuals with one or more common bonds (such as employment, labor union membership, or residence in the same neighborhood). May be state or nationally chartered. Credit unions accept deposits of members' savings and transaction balances in the form of share accounts, pay dividends (interest) on them out of earnings, and primarily provide consumer credit to members. The federal regulator for credit unions is the National Credit Union Administration.

Dealer—An individual or financial firm engaged in the purchase and sale of securities and commodities such as metals, foreign exchange, etc., for its own account and at its own risk as principal (see broker). Commercial banks are typically limited to acting as dealers in specified high-quality debt obligations, such as those of the federal government.

Depository institution—Customarily refers to commercial banks, savings institutions, and credit unions, since traditionally the greater part of their funding has been in the form of deposits. Deposits are a customer's funds placed with an institution according to agreed on terms and conditions and represent a credit to the depositor.

Derivatives—Financial contracts whose value is linked to the price of an underlying commodity or financial variable (such as an interest rate, currency price, or stock index). Ownership of a derivative does not require the holder to actually buy or sell the underlying interest. Derivatives are used by hedgers, who seek to shift risk to others, and speculators, who can profit if they can successfully forecast price trends. Examples include futures contracts, options, and swaps.

Discount window—Figurative term for the Federal Reserve facility for extending credit directly to eligible depository institutions. It may be used to relieve temporary cash shortages at banks and other depository institutions. Borrowers are expected to have tried to borrow elsewhere first and must provide collateral as security for loans. The term derives from the practice whereby bankers would come to a Reserve Bank teller window to obtain credit in the early days of the Federal Reserve System.

Dual banking system—The phrase refers to the fact that banks may be either federally or state chartered. In the case of state-chartered banks, the state is the primary regulator; for national banks, the Office of the Comptroller of the Currency is the primary regulator.

Exchange—A central marketplace with established rules and regulations where buyers and sellers meet to trade futures and options contracts or securities.

Federal safety net—A broad term referring to protection of banking institutions through deposit insurance, discount window credit, other lender of last resort support, and certain forms of regulations to reduce risk. Commercial and industrial companies generally lack any of these cushions against loss.

Federal Open Market Committee—Its members are the Board of Governors of the Federal Reserve System and certain of the presidents of the Federal Reserve Banks; oversees market conditions and implements monetary policy through such means as setting interest rates.

Financial holding company—A holding company form authorized by the Gramm-Leach-Bliley Act (P.L. 106-102) that goes beyond the limits of a bank holding company. It can control one or more banks, securities firms, and insurance companies as permitted by law and/or regulation.

Financial institution—An enterprise that uses its funds chiefly to purchase financial assets such as loans and debt securities, as opposed to tangible property. Financial institutions are differentiated by the manner in which they invest their funds: in loans, bonds, stocks, or some combination; as well as by their sources of funds. Depository financial institutions are differentiated in that they may accept deposits which are federally insured against loss to the depositor. Non-depository financial institutions such as life and property/casualty insurance companies, pension funds, and mutual funds obtain funds through other types of receipts, whose values may fluctuate with market conditions.

Financial subsidiary—Under the Gramm-Leach-Bliley Act (P.L. 106-102), both national and state-chartered banks are authorized to form financial subsidiaries to engage in activities that would not otherwise be permitted within the bank itself, subject to certain limits. Besides the permissible financial activities enumerated in P.L. 106-102, the law provides a mechanism between the U.S. Department of the Treasury and the Federal Reserve to decide what is an appropriate new financial activity for a financial subsidiary.

Financial Stability Oversight Council—A council created by the Dodd-Frank Act (P.L. 111-203) with identifying and monitoring systemic risks to the U.S. financial system, reducing expectations of extraordinary government intervention, and to respond to emerging threats to U.S. financial stability.

Firewalls—Barriers to the flow of capital, information, management, and other resources among business units owned by a common entity. In case of financial distress of one operation (“fire”), the “walls” are intended to prevent the spread of loss to the other units—especially to banking units. Example: losses in a securities subsidiary of a holding company could not be covered by any of the holding company’s bank subsidiaries.

Foreign bank—Banks and their holding companies headquartered in other countries may have a variety of financial operations in the United States: U.S.-chartered subsidiary banks, agencies, branches, and representative offices. Their primary federal regulator is the Federal Reserve, under the International Banking Act of 1978 as amended. States and the Office of the Comptroller of the Currency may also regulate them.

Functional regulation—Regulatory arrangements based on activity (“function”) rather than organizational structure. The Gramm-Leach-Bliley Act (P.L. 106-102) called for more functional regulation than in the past.

Government-sponsored enterprise (GSE)—GSEs are private companies with government charters. Government sponsorship typically gives them a funding advantage over purely private competitors, while their charters restrict the kinds of businesses they may conduct.

Haircut—In computing the value of assets for purposes of capital, segregation, or margin requirements, a percentage reduction from the stated value (e.g., book value or market value) to account for possible declines in value that may occur before assets can be liquidated.

Hedge funds—Hedge funds are essentially unregulated mutual funds. They are pools of invested money that buy and sell stocks and bonds and many other assets, including precious metals, commodities, foreign currencies, and derivatives (contracts whose prices are derived from those of other financial instruments). Hedge funds are limited to qualified investors with high net worth.

Hedging—Investing with the intention of reducing the impact of adverse movements in interest rates, commodities, or securities prices. Typically, the hedging instrument gains value as the hedged item loses value, and vice versa.

Illiquid Assets—Assets that cannot be easily or quickly sold.

Insolvent—A firm whose liabilities exceed its assets.

Institutional regulation—Regulation that is institution-specific as contrasted with activity specific (see functional regulation).

Investment bank—A financial intermediary, active in the securities business. Investment banking functions include underwriting (marketing newly registered securities to individual or institutional investors), counseling regarding merger and acquisition proposals, brokerage services, advice on corporate financing, and proprietary trading.

Investment bank holding company—A holding company for securities firms authorized under the Gramm-Leach-Bliley Act. Such holding companies are subject to regulation by the Securities and Exchange Commission.

Issuer—A person or entity (including a company or bank) that offers securities for sale. The issuing of securities, where the proceeds accrue to the issuer, is distinct from the secondary, or resale, market, where securities are traded among investors.

Lender of last resort—Governmental lender that acts as the ultimate source of credit in the financial system. In the United States, the Federal Reserve has this role.

Leverage—The ability to control large dollar amounts of a commodity or security with a comparatively small amount of capital. Leverage can be obtained through borrowing or the use of derivatives.

Liquidity—The ability to trade an asset quickly without significantly affecting its price, or the condition of a market with many buyers and sellers present. Also, the ability of a person or firm to access credit markets.

Liquidity risk—The possibility that the market for normally-liquid assets will suddenly dry up, leaving firms unable to convert assets into cash. Also, the risk that other firms will refuse to extend credit on any terms to a firm that is perceived as distressed.

Mark-to-Market—The process by which the reported amount of an asset is adjusted to reflect true the market value instead of the purchase price, or expected future sale price.

Market risk—The risk that the price of a tradeable security or asset will decline, resulting in a loss to the holder.

Money market mutual fund (MMF)—A form of mutual fund that pools funds of individuals and other investors for investment in high-grade, short-term debt and bank deposits paying market rates of return. Examples of these money market instruments include U.S. Treasury bills, certificates of deposit, and commercial paper. In addition to the investment features, most MMFs offer check-writing redemption features.

Moral hazard—The tendency of people to take more risks once another party has agreed to provide protection. Regulatory interventions to bail out failing firms are often said to create moral hazard, on the assumption that others will expect to be saved from their mistakes, too.

Mortgage-backed security (MBS)—A bond backed by a pool of mortgage loans. The bondholders receive a share of the interest and principal payments on the underlying mortgages. The cash flows may be divided among different classes of bonds, called tranches.

Mutual fund—An investing company that pools the funds of individuals and other investors, and uses them to purchase large amounts of debt or equity obligations of businesses and sometimes debt obligations of governments. The owners of the mutual fund hold proportional shares in the entire pool of securities in which a fund invests. Owners pay taxes on their distributions from a fund; the mutual fund itself is not normally subject to federal or state income taxation.

Naked option—The sale of a call or put option without holding an equal and opposite position in the underlying instrument.

Net Asset Value (or NAV)—Value of an asset minus any associated costs; for financial assets, typically changes each trading day.

Office of Financial Research (OFR)—An office created by the Dodd-Frank Act (P.L. 111-203) to support the Financial Stability Oversight Council and member agencies by collecting and standardizing financial data, performing applied and long-term research, developing tools for risk measurement and monitoring.

Operational risk—The possibility that a financial institution will suffer losses from a failure to process transactions properly, from accounting mistakes, from rogue traders or other forms of insider fraud, or from other causes arising inside the institution.

Over-the-counter (OTC)—Trading that does not occur on a centralized exchange or trading facility. OTC transactions can occur electronically or over the telephone.

Receivership—When an insolvent financial institution is taken over with the intent to liquidate its assets.

Repurchase Agreement (Repos)—A method of secured lending where the borrower sells securities to the lender as collateral and agrees to repurchase them at a higher price within a short period, often within one day.

Savings association—A savings and loan association, mutual savings bank, or federal savings bank, whose primary function has traditionally been to encourage personal saving (thrift) and home buying through mortgage lending. In recent years, such institutions' charters have been expanded to allow them to provide commercial loans and a broader range of consumer financial services. The federal regulator for most savings associations is the Office of Thrift Supervision. Also known as savings and loans, thrifts, and mutual savings banks.

Securities Investor Protection Corporation (SIPC)—A private nonprofit membership corporation set up under federal law to provide financial protection for the customers of failed brokers and/or dealers. SIPC is a liquidator; it has no supervisory or regulatory responsibilities for its members, nor is it authorized to bail out or in other ways assist a failing firm.

Securitization—The process of transforming a cash flow, typically from debt repayments, into a new marketable security. Holders of the securitized instrument receive interest and principal payments as the underlying loans are repaid. Types of loans that are frequently securitized are home mortgages, credit card receivables, student loans, small business loans, and car loans.

Shadow Banking—Financial institutions and activities that in some respects parallel banking activities but are subject to less regulation than commercial banks. Institutions include mutual funds, investment banks, and hedge funds.

Special-purpose entities (SPEs)—Also referred to as off-balance-sheet arrangements, SPEs are legal entities created to perform a specific financial function or transaction. They isolate financial risk from the sponsoring institution and provide less-expensive financing. The assets, liabilities, and cash flows of an SPE do not appear on the sponsoring institution's books.

Speculation—A venture or undertaking of an enterprising nature, especially one involving considerable financial risk on the chance of unusual profit.

State regulation—Under the dual system of bank regulation, states as well as the federal government may charter, regulate, and supervise depository institutions. States are the primary regulators in the insurance field. States also have authority over securities companies, mortgage lending companies, personal finance companies, and other types of companies offering financial services.

Structured debt—Debt that has been customized for the buyer, often by incorporating complex derivatives.

Subordinated debt—Debt over which senior debt takes priority. In the event of bankruptcy, subordinated debt holders receive payment only after senior debt claims are paid in full.

Subsidiary—A company whose controlling shares are owned 50% or more by another (“parent”) corporation. Like companies with less than 50% ownership, it is an affiliate of the controlling company. A subsidiary is usually consolidated for regulatory and reporting purposes with its parent.

Systemic Risk—The term “systemic risk” does not have a single, agreed-upon definition. Some define systemic risk as the risk an institution faces that it cannot diversify against. In other circumstances, systemic risk is defined as the risk that the linkages between institutions may affect the financial system as a whole, through a dynamic sometimes referred to as contagion.

Thrift holding company—Also known as a savings and loan holding company, a business that controls one or more savings associations. These holding companies are regulated under the Home Owners' Loan Act by the Office of Thrift Supervision.

Too-big-to-fail doctrine—An implicit regulatory policy holding that very large financial institutions must be rescued by the government, because their failure would destabilize the entire financial system. (See “moral hazard.”)

Umbrella supervision—The term applied to comprehensive regulation of a holding company and its parts by one or more holding company regulator(s).

Undercapitalized—A condition in which a business does not have enough capital to meet its needs, or to meet its capital requirements if it is a regulated entity.

Variable Rate Demand Obligation—A security which pays a variable interest rate, and can be redeemed upon the demand of the holder.

Write-Downs—Reducing the value of an asset as it is carried on a firm's balance sheet because the market value has fallen.

Appendix B. Acronyms

Acronym	Name
AIG	American International Group, Inc.
ASC	Accounting Standards Codification released by the FASB
BAB	Build America Bonds
BHC	Bank Holding Company
BIS	Bank for International Settlements
CDS	Credit Default Swap
CFTC	Commodity Futures Trading Commission
CPP	Capital Purchase Program
DFA	The Dodd-Frank Act: P.L. 111-203
ETF	Exchange Traded Fund
FASB	Financial Accounting Standards Board
FDIC	Federal Deposit Insurance Corporation
FFIEC	Federal Financial Institution Examination Council
FHC	Financial Holding Company
FHFA	Federal Housing Finance Agency
FRB or the Fed	Federal Reserve Board of Governors
FRBNY	Federal Reserve Bank of New York
FSOC	Financial Stability Oversight Council
FTE	Full Time Employee Equivalent
GDP	Gross Domestic Product
GSE	Government-Sponsored Enterprise
HUD	Department of Housing and Urban Development
LCBO	Large, Complex Banking Organization
MMF	Money Market Fund
NAV	Net Asset Value
NCUA	National Credit Union Administration
OCC	Office of the Comptroller of the Currency
OFR	Office of Financial Research
OTS	Office of Thrift Supervision
QM	Qualified Mortgage
QRM	Qualified Residential Mortgage
SEC	Securities and Exchange Commission
SIPC	Securities Investor Protection Corporation
TBTF	Too Big To Fail
VRDO	Variable Rate Demand Obligations

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