6 The Agenda Ahead

For the coming year, the OFR will continue to assess and monitor threats to financial stability, to evaluate mitigants to those threats, and to improve the scope and quality of financial data required for that work, focusing on repo and other short-term funding markets. We will conduct further research on financial stability measurement, stress testing, and risk management, and we will begin new research applying network analysis to the study of the financial system. We will also work toward implementation of the Legal Entity Identifier (LEI) in 2013 and initiate further work on financial data standards.[1]

This first Annual Report describes the foundational work to fulfill the OFR's statutory mandates. To date, the OFR has developed frameworks to understand the financial system and conduct research on financial stability; to monitor developments and sources of vulnerability in the financial system; to identify data needs for research and monitoring and to address data gaps; to build an infrastructure to support the Council and its own researchers; to promote and help implement data standards; and to build the institution to facilitate that work.

Getting the foundations right represents only the first of many steps toward achieving these goals. The architecture of the financial system will continue to change and evolve rapidly in response to market and regulatory forces. The more we learn about the financial system and its relationship to the economy, the more new metrics and questions will dominate the debate. Thus, the agenda ahead involves continuing to build on those foundations while expanding our ability to take on new projects that respond to the expectations of the statute and the evolving needs of the Council.

This report describes in separate chapters our agendas for assessing financial stability, conducting research, addressing data gaps, and promoting data standards, but it is important to note that these activities are closely interwoven. Good research and monitoring depends on good data, but research questions determine data needs and help identify the gaps where data may need to be organized, standardized, linked, or collected. Data gaps may also be identified by Council agencies or through interactions with other stakeholders.

As discussed in Chapter 2, three broad themes currently drive our data and research agendas: To understand how the financial system is evolving, to assess emerging threats to financial stability, and to evaluate mitigants to potential threats. While measuring, monitoring, and analyzing the stability of the financial system will always require agility due to the constant innovation and evolution in institutions and markets, we expect that these themes will continue to serve as a compass for our work in the future.

To pursue a complex and evolving research agenda, the Office will continue to build our capabilities for monitoring, investigating, and reporting on potential threats to financial stability. The research agenda will focus on how each of the six basic functions of the financial system—credit allocation and leverage, maturity transformation, risk transfer, price discovery, liquidity provision, and facilitation of payments—are conducive to risk buildups and how they behave under stress.

We are particularly interested in the forces that promote the migration of activity into unregulated or lightly regulated markets, the so-called shadow banking system. Experts disagree on the precise boundaries of the term "shadow banking." In our view, it would always encompass credit intermediation by unregulated financial institutions—even in conjunction with or on behalf of regulated financial institutions—in combination with the creation of money-like liabilities, involving leverage and maturity transformation, in opaque markets.

Short-term funding markets, especially for secured repo transactions, play a pivotal role in this chain of intermediation and can propagate distress across the financial system during market disruptions. We plan to focus extensively on understanding and collecting better data on repo markets in the coming year ***(Box K: Improving Research and Data on Repo Markets)***.

The three research topics that are highlighted in Chapter 3 of this annual report—financial stability indicators, stress tests, and risk management—will always be top priorities for the Office, as mandated in the statute.

Two dimensions of stress-testing technology will be immediate concerns. First, the Office will investigate practical steps to help practitioners and supervisors validate their models against one another. The Comprehensive Capital Analysis and Review (CCAR) exercise generated two sets of stressed results for each institution, one using the institution's internal models and another using supervisory models. Comparing an institution's estimated losses with those implied by CCAR models should permit both parties to improve the quality and consistency of their modeling—contributing to the state of the art in risk measurement. Second, the CCAR process generates a significant amount of institution-specific data which has not yet been aggregated for macroprudential analysis. We intend to evaluate how individual institutions' CCAR results can be combined to identify potentially disruptive shared risk exposures.

Other important themes for future research include characteristics of credit cycles and connections and feedback loops between the financial system and the economy. Housing finance has been and will continue to be a key source of such connections and feedback loops. In light of the international nature of financial activities, we will also be very interested in improving our understanding of cross-border transactions and positions.

Another theme is the nature of financial networks, which can be described either by instruments and obligations (what is being traded) or by counterparties (who is trading with whom). The OFR needs to understand how networks work in order to analyze behaviors such as contagion during financial crises. Network analysis can help uncover latent connections among market participants—who typically know their own exposures to counterparties but not the exposures of their counterparties to other counterparties—and foster understanding of how those interconnections can break down during a crisis. Of course, the application of network analysis to financial systems presents novel analytical challenges. There are many participants of different sizes and different roles and an ever-increasing number of instruments that allow risk to be transferred. Stress testing such a system is very complex but could help us identify specific structural elements that are most vulnerable to shocks and most likely to transmit shocks through the network. That knowledge, in turn, could allow for construction of early warning models to provide policymakers with information about potential threats to financial stability.

Each of these research themes will contribute to our understanding of risks and vulnerabilities in the financial system and the interconnections among companies that can contribute to contagion in a crisis. Each will also help us identify gaps where supervisors need data to be better organized, standardized, or collected. In the coming year, the Office will continue our working paper series; subsequent working papers are forthcoming on the use of agent-based modeling as a tool for stress tests, contingent capital as a countercyclical tool, and macroprudential policy. We will also continue to strengthen our ties with the community of academic and other financial experts, building on the conference on the macroprudential toolkit that we hosted in December 2011 (Gudmundson, 2011). The OFR's Financial Research Advisory Committee will promote a broad perspective on financial stability issues and provide further opportunities for collaboration.

The OFR's data agenda is closely tied to our research agenda. We have a very important mandate to address gaps in the data needed to monitor threats to financial stability. FSOC member agencies' data collections provide an important first source of information that has yet to be fully utilized for the purposes of macroprudential policy. In the coming year, we will focus on ways to catalogue, connect, and share among agencies what is newly or already collected, creating additional benefits to financial stability analysis while minimizing duplication and the burden or cost to the private sector.

As noted in Section 4.2, we will focus our near-term data efforts on understanding metrics for the sources of leverage, liquidity risk, and interconnections among financial firms—particularly as they emerge in the derivatives and shadow banking markets. The experience of the past 10 years has proven the systemic dangers that can emerge when supervisors do not follow risks that are building in these

BOX K. **IMPROVING RESEARCH AND DATA ON REPO MARKETS**

The OFR believes that understanding the repo market is crucial to assessing vulnerabilities in the financial system and designing policy tools to mitigate them.

For years before the financial crisis, repos provided a stable and liquid market in which companies could fund long-term assets with short-term debt. The presence of high-quality, liquid collateral seemed to assure that borrowers would be able to continue to roll over their funding. Repo lenders could rely on both the counterparty's creditworthiness and the collateral underlying the transaction.

Yet, in 2007 and 2008, repo financing dried up for companies like Countrywide, a mortgage lender, and Bear Stearns, an investment bank. The conventional wisdom is that money market funds and other repo lenders withheld funding from these companies and others because of the real or perceived costs related to seizing and selling collateral, or because of concerns about runs by their own investors. This behavior surprised market participants and supervisors and had contagion effects in financial markets.

Why did the apparent security of repo liabilities disappear? Were money market funds more likely than other repo lenders to pull their funds? As counterparties' creditworthiness became more questionable, why didn't repo lenders simply increase their required haircuts, to make the collateral provide more protection? Was this funding withdrawal preceded by other signs of tightening, such as a change in rates or haircuts? In general, should regulators view repo finance as equivalent to unsecured credit?

Following on the experience during the crisis, supervisors would like to understand the extent to which repo lenders rely on the borrower's creditworthiness rather than on the value of collateral posted in the transaction. Understanding the repo market requires collection of transactions-level data about the repo market—information that is presently unavailable to regulators.

Although the repo data collected by the Federal Reserve Bank of New York have improved considerably since the crisis, that data remain insufficient to understand when and how repo financing conditions are changing in ways that might affect financial stability (Adrian and others, 2012). Research needs to encompass all three repo markets: tri-party, Delivery versus Payment, and General Collateral Finance. The behavior of these markets differed starkly in the crisis.

The benefits of repo market analysis will accrue to both on-site supervisors and to those monitoring threats to the financial system more broadly. A more granular view of the repo markets would help improve macroprudential policy in three ways. First, it would provide information about the degree of stress in financial markets as a whole. Second, it would help inform policy—for example, there have been proposals to address the procyclicality in repo markets by introducing policies on haircuts, akin to the margin requirements that the Federal Reserve imposes under Regulation T in the stock market. Third, it would allow financial stability analysts to learn more about the mechanics of funding markets, such as the transfer of risk or trade segregation within prime brokerage transactions, and in the relationship between repo financing and securities lending (FSB and IMF, 2012).

markets (Tarullo, 2012). While significant progress has been made, particularly in the emergence of swaps trade repositories, the level of transparency in these markets must improve. Failure to address data gaps in these areas is and will remain a threat to financial stability and a significant focus for the OFR and financial supervisors. To that end, we have also begun to receive data about credit derivatives, money markets, and repo markets, and we expect that these data will be the source for valuable OFR research, in collaboration with Council member experts, in the coming year.

To promote data standards, the OFR will continue to lead the initiative among U.S. regulatory agencies toward the establishment of a global Legal Entity Identifier (LEI), working with the international regulatory community and private industry. The International Organization for Standardization's publication of an LEI standard and the G20 leaders' March 2013 deadline are historic developments in an international public-private collaborative effort to promote transparency and efficiency for financial institutions and their regulators.

While the LEI initiative is the top OFR standards priority at this time, future agenda items are being identified and considered. Standards gaps that may be considered include product classifications and identifiers, semantic standards, and quality standards. OFR will maintain and continually update its understanding of the standards priorities of its researchers, the Council agencies, and the industry. The OFR is also obligated by statute to standardize and publish lists of entities, products, and their associated reference data, as a standards activity that will have immediate benefit for the public. We plan to get these efforts under way in the coming fiscal year.

The OFR will continue to develop and refine its technology architecture, policies, and procedures, and to add analytic tools to allow for the further acquisition, cataloging, validation, aggregation, and distribution of data. This will provide the ability to quickly respond to new requests for data while ensuring the confidentiality, security, and proper use and distribution of the data it collects.

In each of our activities, the OFR is collaborating closely with the Council member agencies that have a role in financial stability supervision and regulation. The OFR has begun to provide data and analytical services to the Council and its member agencies, such as the analysis to support the Council's work in identifying criteria for designating asset management companies for enhanced prudential supervision by the Federal Reserve as required by Dodd-Frank. We have supported the establishment of the Council Data Committee as a forum to discuss data-related issues among member agencies. There is also an important international component to all of our work; for example, we are working to promote improved data collection and data standards through international bodies such as the Financial Stability Board and the G20.

Success in all of these endeavors will depend on building a strong professional organization and a secure and robust technological infrastructure. In all cases, we will carefully consider costs and make sure that the technological and data infrastructure is secure before receiving sensitive data already available to regulators or undertaking any new data collections.

Endnote

1. The OFR's Strategic Framework, issued in March 2012, described our near-term objectives: (1) Ramp up services to FSOC, its member agencies, and their staffs, (2) Begin to publish OFR data and analysis, (3) Accelerate work to establish the secure information technology platforms and business systems critical to achieving our mission, and (4) Continue to build and reinforce the OFR's institutional infrastructure (OFR, 2012).

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