

# Status of the Efforts of the OFR in Meeting Its Mission



This chapter discusses OFR support for our key stakeholders, our national and international collaborations over the past year, current staffing levels, our budget, and information technology projects.

The OFR was created when the financial system and the economy were beginning to recover from the financial crisis, and regulators were beginning to implement regulations and policies to make the financial system more resilient.

The environment and stakeholders' needs have evolved since then. In the future, we plan to continue adjusting our focus on meeting the needs of our key stakeholders — the FSOC, FSOC members, the Treasury Department, Congress, the financial services industry, and the public — as their priorities evolve.

As a service organization, the OFR stands ready to respond quickly to stakeholders' needs and collaborate with stakeholders to achieve them.

### The OFR will be a:

- **Trusted resource for meeting stakeholder needs.** We aim to fill gaps in stakeholder capabilities, give objective advice, and act as a sounding board for making difficult decisions.
- **Key source for financial data.** High-quality financial data that are secure, fit for their intended purpose, easy to access and compare, and inexpensive are essential for making good policy decisions.
- **Key source for research and analysis on financial stability.** On behalf of the FSOC, we conduct applied and essential long-term research on the causes of financial crises, develop tools for measuring and monitoring financial stability risks, and analyze the impact of policies related to financial stability.
- **Source for supplemental expertise.** The Dodd-Frank Act requires the OFR to maintain expertise to support the FSOC and its members. The OFR has this expertise in the fields of finance, regulation, economics, law, policy, data, and technology.

## Support of Key Stakeholders

### Financial Stability Oversight Council

The OFR meets the Dodd-Frank Act mandate of supporting the FSOC and FSOC members in a number of ways. The Office provides data, research, and analysis to the FSOC, its members, Congress, and the public. We are also charged with looking throughout the financial system to collect and standardize financial data, monitor and analyze risks, and perform policy research and analysis.

The FSOC obtains data from nonbank financial companies through the OFR.

Our Director is a nonvoting member of the FSOC, and members of the OFR staff work on a wide variety of FSOC activities and initiatives.

The OFR supports the FSOC and its members by:

- supplying monthly data and analysis on market trends;
- presenting updates of our monitors and delivering ongoing threat assessments to the FSOC Systemic Risk Committee;
- presenting to FSOC principals and deputies to inform their discussions of market events and potential policy steps;
- making presentations and participating in discussions for other FSOC working committees and groups, including the Regulation and

Resolution Committee and Financial Market Utilities Committee;

- assisting the FSOC in developing its annual report through analysis and writing support;
- leading the FSOC Data Committee and co-leading the committee's working group that updates the Interagency Data Inventory; and
- providing data and analysis to support the FSOC's nonbank designation process as the FSOC identifies nonbank financial companies that meet thresholds in the FSOC's initial quantitative metrics.

The FSOC Data Committee is a forum for sharing information and coordinating action on data-related topics that affect member agencies. The OFR leads the committee, which has overseen the development of the FSOC Interagency Data Inventory, designed as an initial step toward avoiding duplication and burden in regulatory reporting. The inventory, the catalog of data being collected by the FSOC member agencies, helps identify data that can be shared by serving as a common reference of regulatory datasets. It can also serve as a best-practices framework for categorizing information security levels, sharing data, and improving reporting efficiency.

We also co-chair the working group of the Data Committee that updates the inventory. Maintenance of the inventory is increasingly important as we strive to identify financial regulatory burdens on industry that can be reduced.

In addition, we serve the FSOC and its staff by collecting, maintaining, and appropriately sharing supervisory and commercial datasets. The OFR has purchased and maintains more than 65 datasets used by the FSOC staff. The OFR develops procedures and protocols for securely sharing data among the FSOC, its member agencies, and the OFR.

We regularly respond to requests by the FSOC and its staff for objective research and analysis. In addition, we have worked to determine the best methods for identifying systemically important banks. In this effort, we built on our earlier research to show how a multifactor approach for assessing systemic importance is superior to making determinations based solely on bank size.

Our research also helps the FSOC identify and prioritize threats to financial stability.

## FSOC Members

The OFR offers objective evaluation of financial stability risks and the effectiveness of regulatory policies to FSOC members. The OFR has partnered with FSOC member agencies on a number of research and data projects, some at the specific direction of the FSOC or its member agencies, and others in a less formal response to concerns discussed.

Our work to meet the needs of the FSOC member agencies includes a project with the Federal Reserve to collect and analyze data in support of a reference interest rate as an alternative to LIBOR, an interest rate benchmark formerly known as the London Interbank

Offered Rate, but now called ICE LIBOR (Intercontinental Exchange LIBOR). We are also collaborating with the Federal Reserve on a project to fill critical data gaps in repurchase agreement (repo) transactions, which could support the reference rate project.

During fiscal year 2017, we improved our U.S. Money Market Fund Monitor, which tracks the investment portfolios of money market funds and shows trends and developments across the money market fund industry. The monitor uses data converted from the SEC Form N-MFP and presents the information in a graphic, user-friendly format on the OFR website. It makes the underlying data freely available for download by the industry and public for monitoring and analysis. The monitor is one of the most viewed items on the OFR website, with more than 14,000 page views in the year after its launch.

To improve data sharing among the FSOC member agencies, we are continuing to work with them to streamline the process of developing memorandums of understanding by developing best practices and a set of common provisions.

We anticipate that our ongoing work with standards organizations on identifiers and other data standards will benefit the FSOC member agencies as the quality and interoperability of financial data improves.

The OFR led the U.S. delegation on the global Legal Entity Identifier (LEI) initiative so the LEI could be developed to meet regulatory needs, including swap data repository collection requirements. This foundational standard was the result

of a global effort that the OFR spearheaded, as Treasury's representative to the international initiative through the Financial Stability Board.

The LEI system now is routinely considered by others as a way to meet additional needs. For example, the LEI code has become the preferred identifier for parties engaged in swaps activities, and the International Standards Organization asked the foundation that runs the LEI system to maintain the international standard for "entity legal form" (such as a corporation).

## Treasury

Because the OFR is an office of the Treasury Department and the Secretary is the FSOC chair, we regard Treasury as a key stakeholder. We share expertise and staff time on projects with the Department, consistent with the law, as we do with other FSOC members.

In addition to supporting the FSOC annual report project, the OFR has lent employees with special expertise to the Department on work details of up to six months.

We also provide Treasury offices access to purchased data on a reimbursable basis, generating significant cost savings compared with those offices obtaining the data directly (because they avoid administrative costs and pay only for the services they need).

To support efforts to make the financial system more resilient to cyber threats, we are assisting Treasury's Office of Critical Infrastructure Protection and Compliance Policy in maintaining and

updating their maps of the financial system. The goal of our network analysis of the maps is to gauge the resilience of U.S. financial markets to shocks.

In addition, through our regulatory reporting burden initiative, the OFR is addressing broad Treasury, Congressional, and industry interest in identifying areas of duplication, overlap, and inefficiency in regulatory reporting. We have identified, on a pilot basis, areas of potential overlap in regulatory reports relating to private funds (see **Reducing Regulatory Reporting Burdens**). This work, if expanded, could aid the FSOC in identifying and brokering the implementation of common data standards that would alleviate reporting burdens on firms and improve the quality of financial data for regulators.

## Congress

The Dodd-Frank Act requires the OFR to report to Congress annually on our progress in meeting our dual data and research mandates. We do so through this report, and our Director testifies before Congress when invited. The OFR also submits quarterly reports to Congress as required by the Consolidated Appropriations Act. These reports describe the OFR's use of funds, staffing levels, and actions to achieve its goals and objectives.

In addition, our Government and Industry Affairs liaisons routinely interact with key members of Congress, their staffs, and committee staffs to respond to questions, address concerns, and share insights on issues related to financial stability.

Key members of the House Financial Services Committee and Senate Banking Committee have referenced OFR research during public proceedings, including our research on identifying systemically important banks. The OFR also has made presentations to staff members of the House Financial Services Committee and the Senate Banking Committee on the OFR's U.S. Money Market Fund Monitor and on issues including financial stability considerations related to bond market liquidity.

In addition, we are working with other agencies to respond to Congressional inquiries about assessing the benefits of cross-market surveillance for market oversight and financial stability monitoring, and the potential impact for financial firms of a new Chapter 14 of the Bankruptcy Code.

## Industry

The OFR has had an industry outreach function since the early days of its existence. Our Government and Industry Affairs team meets with leaders of financial service companies on a regular basis, learning what issues concern financial experts to further inform our agenda.

Our pilot work to collect and anonymize repo data to produce reports about the bilateral repo market has been widely cited by market participants as a success. In addition, the industry Alternative Reference Rates Committee has expressed support for the repo-based reference rate (to replace LIBOR) that the OFR and the Federal Reserve Bank of New York would produce.

We also are working on a regulatory reporting burden project that would benefit industry and promote more efficient regulation by exposing expensive, duplicative, and inefficient regulatory reporting.

Industry trade groups have noted favorably the OFR's ongoing objective analysis on regulatory reform, including OFR analysis of bank stress tests, the approach for identifying systemically important banks, and the regulation of central counterparties.

## The Public

The stability of the U.S. financial system is essential to the welfare of all Americans and their financial well-being. As a result, the American public is a beneficiary of OFR efforts to assess and report on vulnerabilities in the system. Our service stems from our critical function as both a research and data institution, our ability to look across the entire financial system to spot emerging threats to financial stability, and our unique data-related mandate.

Results of our work are made public on the OFR website, [financialresearch.gov](http://financialresearch.gov). In publishing our findings and monitoring tools, we support market discipline by making the vulnerabilities of the financial system more transparent.

Another channel for informing the public about the OFR and its work is our Twitter site, where we highlight key OFR activities and products, including graphics. We also send e-mail alerts to the more than 30,000 subscribers who subscribed through our website.

Our research is regularly cited in the media. We maintain working relationships with members of the news media and answer reporters' questions about the OFR.

To further meet the needs of the public, we have projects underway to enrich the information on the OFR website and to make it more usable and accessible by applying usability best practices. We are also working to expand our offerings of downloadable data and interactive monitors for members of the public and news media to understand the importance of OFR work and topics related to the stability of the financial system.

## Collaboration

OFR staff experts and leaders participate in a wide variety of events related to financial stability research, data, and analysis. Collaboration with other researchers and regulators, as well industry experts domestically and abroad, is crucial to our success. The OFR has created a virtual research-and-data community to extend our reach and impact by collaborating with colleagues in government, industry, and academia in the United States and around the globe. Collaboration with others helps us to maximize our resources, support financial stability research, and promote standards that lead to high-quality data on the global financial system.

We regularly reach out to academic and financial industry groups for their input on current and emerging financial stability issues. We also collaborate with colleagues around the world on research

and data projects by speaking at conferences and events and maintaining our involvement with global organizations. In addition, we hold and cosponsor conferences and other events to promote awareness and discussion about issues related to financial stability.

Our outreach includes remarks, presentations, and appearances in panel discussions by OFR Director Richard Berner and other members of the OFR staff. They speak at conferences and meetings sponsored by industry groups, government regulators, academic institutions, and others.

In addition, the OFR sponsors a Research Seminar Series for OFR employees to engage in discussion and debate with outside experts from government agencies, academic institutions, and international organizations. More than two dozen outside experts appeared at

these seminars during the fiscal year.

Presentations included:

- “Liquidity Requirements, Liquidity Choice, and Financial Stability”
- “Competition and Stability in Banking: The Role of Regulation and Competition Policy”
- “Do Bank Bailouts Reduce or Increase Systemic Risk? The Effects of TARP on Financial System Stability”
- “Liquidity Regulation and Unintended Financial Transformation in China”

## Financial Research Advisory Committee

The OFR Financial Research Advisory Committee, a group of 29 experienced professionals with experience in business, economics, finance, data science, risk management, and information

### 2017 Financial Research Advisory Committee Meetings

February 23  
Department of  
Treasury

The ninth meeting of the committee included discussions of financial stability risks identified by the OFR, the OFR initiative to develop a financial instrument reference database, adoption of the Legal Entity Identifier, and the research agendas of OFR programs on central counterparties and risks in financial institutions. The OFR also received updates from the committee’s Financial Instrument Reference Database Viewpoint Working Group, Data Standards Working Group, and Financial Innovation Working Group.

July 20  
Federal Reserve  
Bank of New  
York

This meeting included a presentation on improvements to the Financial Stability Monitor; a demonstration of the OFR’s newest monitoring tool, the Financial Stress Index; an update on the OFR’s efforts to identify obstacles to broader adoption of the Legal Entity Identifier; and a discussion of the OFR’s work to monitor and analyze operational risks and cybersecurity risks. At the meeting, the OFR also received updates from the committee’s Financial Innovation Working Group.

technology, enhances our annual research-and-data agendas with recommendations that help ensure the OFR is focusing on the most important and timely issues. Committee members are drawn from industry, academia, and the policy community.

The committee, established in 2012, gives the OFR the benefit of industry experts who bring diverse perspectives to inform our work and help the OFR to fulfill its mission. Under the governance of the Federal Advisory Committee Act, the full committee meets semiannually. The OFR makes the minutes and webcasts of the meetings available to the public.

The three subcommittees — Research, Data and Technology, and Financial Services and Risk Management — meet at different times during the year to develop committee work.

## Developing Standards for Reporting Financial Data

The OFR's commitment to setting global standards — ranging from identifiers such as the LEI to mortgage standards — is integral to our mandates under the Dodd-Frank Act. To that end, the OFR provides analytical assistance on data standards, and promotes their development and use among the FSOC member organizations, in global regulatory forums, and through standards-setting bodies.

Our collaboration with public and private stakeholders during the past year reaffirmed that the time is right to establish clear, internationally mandated and coordinated standards for reporting

financial data and metadata (the data describing data).

Implementation requires the use of standards for the design of data collections, either through coordinated global action or implementation of technical guidance. At its meeting in February, the OFR's Financial Research Advisory Committee recommended that the OFR engage key stakeholders of the LEI to identify obstacles to more complete adoption of the standard. The OFR is following that recommendation as it continues to lead the process of building implementation strategies and coordinating adoption plans with industry and regulatory colleagues in the United States and abroad.

## Memorandums of Understanding

Memorandums of understanding (MOUs) are key to the OFR's strategy to promote data sharing, particularly among regulators. In May, the OFR and the European Central Bank signed an MOU that formalizes the processes for the staffs of the OFR and the bank to share analyses and information about emerging financial market risks in the United States and the eurozone.

This MOU is the OFR's second on cross-border cooperation. In April 2015, the OFR signed a similar information-sharing arrangement with the Bank of England, the United Kingdom Prudential Regulation Authority and the United Kingdom Financial Conduct Authority.

These types of cross-border agreements on information sharing are important



tools for the OFR to meet its statutory mandate by monitoring global financial market risk, while potentially lowering regulatory reporting costs for firms that operate in the United States and abroad.

The OFR also has scores of MOUs with other agencies in the United States.

## Standards for Derivatives Data

The OFR contributes to the global Working Group for Harmonization of Over-the-Counter Derivatives Data Elements. The group, sponsored by the Committee on Payments and Market Infrastructures – International Organization of Securities Commissions (CPMI-IOSCO), is focused on three distinct efforts: (1) a unique product identifier, (2) unique transaction identifier, and (3) standardizing critical data elements.

We collaborated with industry participants about the product identifier during meetings in January, April, and July of 2017. The identifier will enable unique identification of financial products for easier aggregation of data and analysis of potential asset-specific risks.

The transaction identifier will enable identification of unique individual over-the-counter derivative transactions to facilitate aggregation of transactions and enhance analysis. We contributed to the publication, Technical Guidance for the Harmonization of the UTI (unique transaction identifier). We also reviewed the industry's consultative responses and drafted the final recommendations of the guidance, published in February 2017.

The technical guidance outlines the definition, format, and use of the transaction identifier.

We participate in the Financial Stability Board's working group on governance for both identifiers. Strong global governance is necessary for effective implementation and continued relevance of global standards.

In April 2017, the OFR took leadership of the governance assessment work stream for the unique transaction identifier. The final proposed governance arrangements for the transaction identifier were published for public comment in March 2017.

The work on critical data elements is aimed at producing clear guidance to authorities on definitions, format, and use of critical data elements (other than the transaction and product identifiers) for consistent and effective global aggregation of over-the-counter derivative contracts. Under OFR leadership, this work continued to focus on the potential for the International Organization for Standardization to manage data elements.

As co-chair of the work stream on critical data elements, the OFR continues to lead the revision of the Batch 1 CDE (critical data elements) Consultative Report, consisting of 14 data elements, as well as the analysis, finalization, and revision of the 27 data elements for the Batch 2 CDE Consultative Report. The Batch 3 CDE Consultative Report was published in June 2017.

## Mortgage Standards

The OFR staff worked with the industry and global standards bodies during the year to develop standards that would affect a broad array of processes in the mortgage industry.

For example, we held a two-day workshop to align data fields and definitions between messaging standards by the International Organization for Standardization and the Mortgage Industry Standards Maintenance Organization.

The mortgage industry relies on electronic payments to transfer money between participants in mortgage financing, guarantee, and securitization processes. We worked with the mortgage industry to help its stakeholders (such as mortgage issuers and servicers) understand the potential impact of adopting the International Organization for Standardization's standard in the U.S. electronic payments system.

The OFR also continued to collaborate with industry and regulators to advance the adoption of a universal loan identifier. Such an identifier would help regulators and the industry assess risk by linking first and second liens, such as first mortgages and related home-equity loans — without revealing the personally identifiable information of borrowers. But without an industry-wide requirement to adopt a universal loan identifier, adoption has been slow.

As an example of voluntary adoption, government-sponsored enterprises Fannie Mae and Freddie Mac have committed to begin collecting the universal loan identifier for all applicable loans delivered to them. This new data collection becomes mandatory for loan delivery to these government-sponsored enterprises by May 2019.

## Working Groups

Oct. - Nov. 2016 OFR Associate Director of Data Strategy and Standards and Acting Associate Director for Strategic Data Support attended a meeting on Oct. 28 of the Legal Entity Identifier Regulatory Oversight Committee's Executive Committee. They also attended meetings Nov. 1-2 of the Data Harmonization Working Group of CPMI-IOSCO.

FY 2017 OFR Acting Associate Director for Current Analysis participated in the Financial Stability Board's Data Experts Group, which is responsible for developing standards for a global data collection on securities financing transactions and implementing the collection. The group met to develop the implementation guidelines for the collection.

|            |  |
|------------|--|
| FY 2017    | OFR staff members represented the Treasury Department at several meetings of the global LEI system and led or participated in several work streams.  |
| FY 2017    | OFR staff members represented the Treasury Department in an initiative to establish a governance structure for sharing aggregated and anonymized data on securities financing transactions with financial authorities overseas through a secure data center hosted by the Financial Stability Board and Bank for International Settlements.  |
| FY 2017    | OFR senior researchers contributed to the Financial Stability Board's working groups on the over-the-counter derivatives market, contributing to a review of effectiveness of market reforms.  |
| FY 2017    | OFR staff members represented the Treasury Department in the Financial Stability Board's Financial Innovation Network. The events included a case study on artificial intelligence and machine learning in financial services. The OFR contributed to drafting a report analyzing potential benefits and risks for financial stability stemming from applications of artificial intelligence and machine learning. |
| April 2017 | OFR staff members acted as U.S. government observers of the Joint Expert Group on Interconnectedness at the invitation of the European Systemic Risk Board. The group meets to share data and analyses on financial stability issues in the European Union. The OFR participation allowed the staff members to share views about financial stability concerns with their European counterparts.                    |
| April 2017 | OFR Associate Director for Data Strategy and Standards, a Senior Standards Specialist, and a Policy Advisor attended the quarterly meeting of CPMI-IOSCO sponsored by the Data Harmonization Working Group.  |
| July 2017  | OFR Associate Director for Data Strategy and Standards, a Senior Standards Specialist, and a Policy Advisor attended the quarterly meeting of the Financial Stability Board's Working Group on the Unique Transaction Identifier & the Unique Product Identifier and the CPMI-IOSCO Data Harmonization Working Group.  |

## OFR Speeches, Conferences, and Events

### Speeches

OFR Director Richard Berner made remarks at the following events:

Oct. 2016 **New Pedagogy of Financial Regulation** conference at the Columbia Law School on “The Interdisciplinary Approach to Financial Stability Analysis.”

Jan. 2017 **Power of Transparency Speaker Series** hosted by the Atlantic Council and Thomson Reuters.

March 2017 **Financial Data Summit** hosted by the Data Transparency Coalition on “Reducing the Regulatory Reporting Burden.”

OFR staff members made public remarks and presentations at many events, including:

Oct. 2016 **American Society of International Law and the Institute of International Economic Law Biennial Conference**  
OFR’s Senior Advisor for International Affairs spoke on the “Systemic Risk Aspects of International Financial Law.”

Oct. 2016 **Securities Lending** conference and **Securities Finance**  
Jan.- Feb. 2017 **Collateral Management** conference  
An OFR Senior Financial Analyst gave presentations about the OFR’s securities lending data pilot during events sponsored by the Risk Management Association and the Information Management Network.

April 2017 **Enterprise Data World** conference  
An OFR Senior Standards Specialist shared her ontology expertise and how the use of ontologies are helpful when managing information from disparate data sources in varied formats.

April 2017 **Eurofi High Level Seminar**  
The OFR Deputy Director for Research and Analysis participated in a panel on “Emerging Risks in Global & EU Financial Markets.”

May 2017 **Financial Information Management** conference  
The OFR Deputy Director and Chief Data Officer spoke about OFR initiatives to improve data quality through collaborative standards development efforts with regulators and industry.

July 2017 **Society for Economic Measurement 4th Annual Symposium**  
An OFR Senior Advisor participated in a panel highlighting the benefits FinTech and RegTech can provide to the financial industry. He discussed evolving analytical approaches in response to explosive growth in data volumes.

### FY 2017 Conferences and Events

Oct. 2016 **Big Data: Improving the Scope, Quality, and Accessibility of Financial Market Data**  
The OFR and the Center on Finance, Law, and Policy at the University of Michigan hosted a conference that explored ways to make data more useful, accessible, and secure.

Dec. 2016 **Conference on Innovation, Market Structure, and Financial Stability**  
The OFR and the Federal Reserve Bank of Cleveland cosponsored this event. It brought together academics, policymakers, and market participants to discuss financial and technological innovations and their impact on financial stability.

March 2017 **Setting Global Standards for Granular Data: Sharing the Challenge** workshop  
The third workshop cosponsored by the OFR, Bank of England, and European Central Bank brought together policymakers, international organizations, and financial industry practitioners from around the world. The three sponsoring institutions are continuing their work along with other organizations under the theme "Sharing the Challenge." OFR Director Richard Berner and representatives of the OFR's Data and Research Centers participated in various panels.

Sept. 2017 **Conference on Heterogeneous Agents and Agent-based Modeling**  
The OFR, Brandeis University, and Bank of England cosponsored this event. It highlighted research on the impact of individual heterogeneity for financial system stability and economic outcomes.

# Organization, Staffing, and Offices

## Organization

To achieve the goals set by the Dodd-Frank Act, the OFR has three centers (see Figure 11):

1. The **Data Center** acquires and manages data and leads global initiatives to develop standards for efficiencies in data reporting and analysis.
2. The **Research and Analysis Center** conducts research, performs analysis, and evaluates policies related to the stability of the U.S. financial system.
3. The **Technology Center** is responsible for OFR information technology systems and system security, including an information technology platform to support analysis with large datasets.

Three divisions support the centers:

1. The **Operations Division** provides expertise, program management, implementation, policy, and oversight for budgeting, travel, human resources, procurement, and facilities.
2. The **External Affairs Division** produces OFR publications and graphics and maintains relationships and communicates with a broad array of stakeholders, including Congress, industry, the news media, and the OFR workforce.

3. The **Office of the Chief Counsel**, part of the Treasury Department's Office of General Counsel, offers legal guidance on policy initiatives, analysis and research, data acquisition and usage, procurements, and agreements with other organizations. It also oversees risk management work and audits.

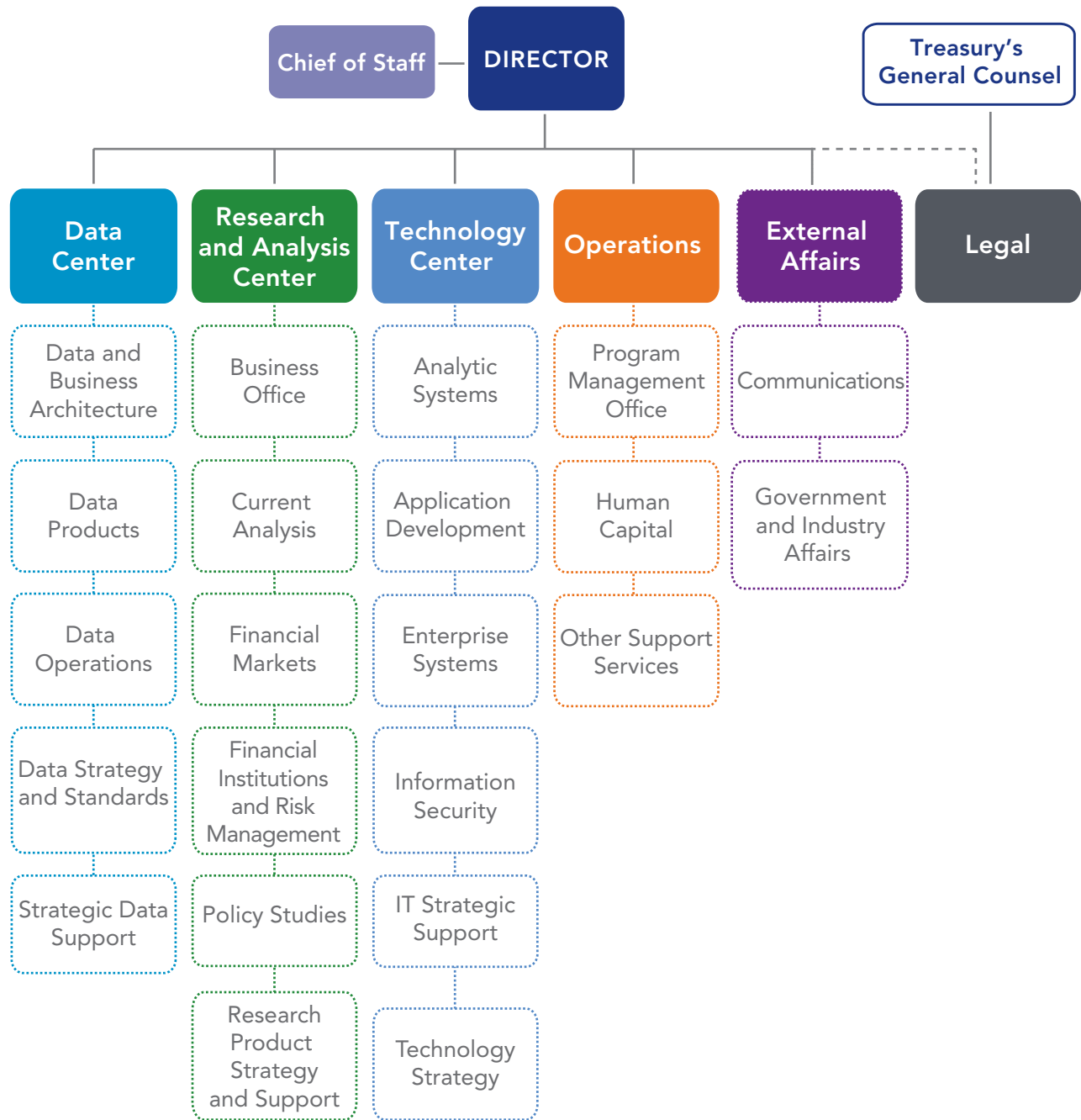
## Staffing

The OFR's work was supported during the fiscal year by 210 employees: 203 permanent, six term, and one temporary. (This count does not include employees on detail from other agencies or serving under the Intergovernmental Personnel Act of 1970.) Only the Director is a political appointee.

Two leadership groups govern the OFR. The Director and seven deputy directors and chiefs make up the senior management team. The leadership group includes those eight senior managers plus 20 associate directors who lead the teams under the senior managers.

In consultation with the FSOC, FSOC members, and other stakeholders, the OFR developed an FY 2017 plan that reflects our mission, five-year strategic plan, key stakeholder needs, critical infrastructure needs, and budget parameters. The FY 2017 plan was a roadmap for the OFR to meet the needs of key stakeholders within the President's Budget parameters. All OFR employees were assigned work that contributed to meeting stakeholder needs, statutory requirements, and the building and operating of critical infrastructure.

Figure 11. OFR Organizational Chart



## OFR Budget and Accountability

OFR funds obligated in FY 2017 were \$92.9 million — 54 percent for labor and 46 percent for other expenses (see Figure 12). This ratio differs significantly from the two-thirds labor, one-third nonlabor split in the budgets of most agencies, largely due to significant OFR expenses for data acquisitions (\$8.8 million) and technology software and hardware (\$13 million) to support the OFR’s unique mandates.

The OFR is an office within the U.S. Department of the Treasury, overseen by Congress and government auditors. Since its establishment, the OFR has answered four audit requests from the Government Accountability Office, and interviewed for another five; six audits

by the Treasury Inspector General; and one audit by the Council of Inspectors General on Financial Oversight. OFR leaders have testified before Congress on four occasions: Director Richard Berner has testified three times as Director, and a former Chief Operating Officer testified once before the Director’s confirmation.

Though part of the Treasury Department, the OFR is not funded by annual Congressional appropriations, but by semiannual assessments from bank holding companies with total consolidated assets of \$50 billion or more each and nonbank financial companies supervised by the Board of Governors of the Federal Reserve System.

The OFR pays the Treasury Department nearly \$10 million per year for support

Figure 12. OFR Funds Obligated in Fiscal Years, 2013 - 2017 (\$ thousands)

|                             | 2013          | 2014          | 2015          | 2016          | 2017          |
|-----------------------------|---------------|---------------|---------------|---------------|---------------|
| Compensation                | 15,339        | 24,168        | 29,036        | 32,485        | 37,379        |
| Benefits                    | 4,885         | 7,968         | 9,507         | 11,322        | 13,054        |
| <b>Labor Total</b>          | <b>20,224</b> | <b>32,136</b> | <b>38,543</b> | <b>43,807</b> | <b>50,434</b> |
| Travel                      | 246           | 296           | 453           | 556           | 447           |
| Communication and Utilities | 4,717         | 5,332         | 3,811         | 62            | 179           |
| Printing and Reproduction   | 24            | 27            | 31            | 26            | 22            |
| Other Services              | 22,683        | 23,558        | 25,033        | 35,794        | 31,823        |
| Supplies and Materials      | 3,916         | 4,947         | 8,060         | 8,312         | 6,508         |
| Equipment                   | 13,495        | 16,970        | 8,785         | 5,997         | 3,459         |
| Grants                      |               |               |               | 320           |               |
| <b>Nonlabor Total</b>       | <b>45,081</b> | <b>51,130</b> | <b>46,173</b> | <b>51,067</b> | <b>42,439</b> |
| <b>TOTAL</b>                | <b>65,305</b> | <b>83,266</b> | <b>84,716</b> | <b>94,874</b> | <b>92,873</b> |

Note: Other services include rent and administrative support for human resources, conferences and events, facilities, and procurement.

Source: OFR analysis



for OFR human resources, budget, travel, and acquisitions activities. In addition, the Office pays Treasury more than \$6 million annually for information technology circuits; payroll services; and agency-wide systems for training, performance management, and human resources management. The OFR Director must consult with the Treasury Secretary in establishing the OFR budget and workforce.

## Information Technology

### Information Security

Information security is one of the OFR's highest priorities, and we have built a strong security and privacy awareness program over the past several years dedicated to ensuring that our systems and our data are secure and will remain secure. All OFR employees take annual security and privacy training, and employees who have access to nonpublic data are subject to heightened post-employment restrictions.

The OFR brings large quantities of data into its analytical environment, which was designed and built specifically for the OFR to securely support computing-intensive work with large datasets. In FY 2017, we renewed our commitment to maintaining the confidentiality, integrity, and availability of our systems and the information they hold. We conducted our annual internal and external "penetration tests," which were completed by an independent third party, with no major

findings identified. We also deployed several additional controls and tools that strengthened our security posture.

The OFR operates two storage systems. One system is used exclusively for analytics; the other system is for general purposes. One of our projects during FY 2017 involved enabling the encryption of data not being used (referred to as "data at rest") on both systems to boost our security.

The OFR follows the National Institute of Standards and Technology guidance for the implementation and operation of a government information security program.

### Disaster Recovery and Web Infrastructure Security

We also reassessed our business needs for disaster recovery in FY 2017. The OFR has an alternate processing center and disaster recovery center outside of Washington, D.C. We conducted a number of tests using several scenarios to determine that the center would be ready in the event of an emergency, and we put additional technology and controls in place to ensure its readiness.

The OFR uses this disaster recovery data center as an alternate processing center and not just as a standby. When not in disaster-recovery mode, we maximize our investment in this resource by using it for additional computing power for the OFR's day-to-day operations.

During the year, we also assessed our public website, [financialresearch.gov](http://financialresearch.gov), and determined that we needed to increase the security level of the site's

infrastructure to handle new requirements. In anticipation of creating a restricted, password-protected area on the website in the future, we built a platform that would allow researchers or other approved stakeholders from outside the OFR (such as the FSOC and FSOC members) to have access to certain protected resources. This project also required creating an authentication mechanism and process to ensure only selected users approved for access and having user accounts and passwords will be allowed.

Finally, we upgraded the OFR's mobile-device-management platform, increasing the security of our mobile phones, while enabling capabilities that allow OFR employees to securely use on-site services, such as our time-and-attendance system.

## Technology Projects

When we launched the OFR analytic systems at the end of 2013, we decided not to use external "cloud" services. Cloud services allow organizations to pay only for the computing and storage capacity they use, instead of procuring, creating, and maintaining entire in-house systems. Over the past four years, rapid technology development and improvements, coupled with improvements in security, have advanced external cloud options significantly.

Now, our analytic systems are nearing the point of requiring significant investment in new machinery and hardware. After extensive research and work to determine the most cost-effective way

forward, we launched a project in FY 2017 to begin to migrate a number of our systems to the cloud. Consequently, the eventual cloud migration of key services guided many decisions we made during the year about architecture, new investments, ongoing maintenance and support arrangements, and our existing product portfolio.

To support a cloud migration, we also developed a new system architecture that effectively and efficiently ties internal systems with cloud and Web-based systems, and we made prudent investments in new technology for internal systems.

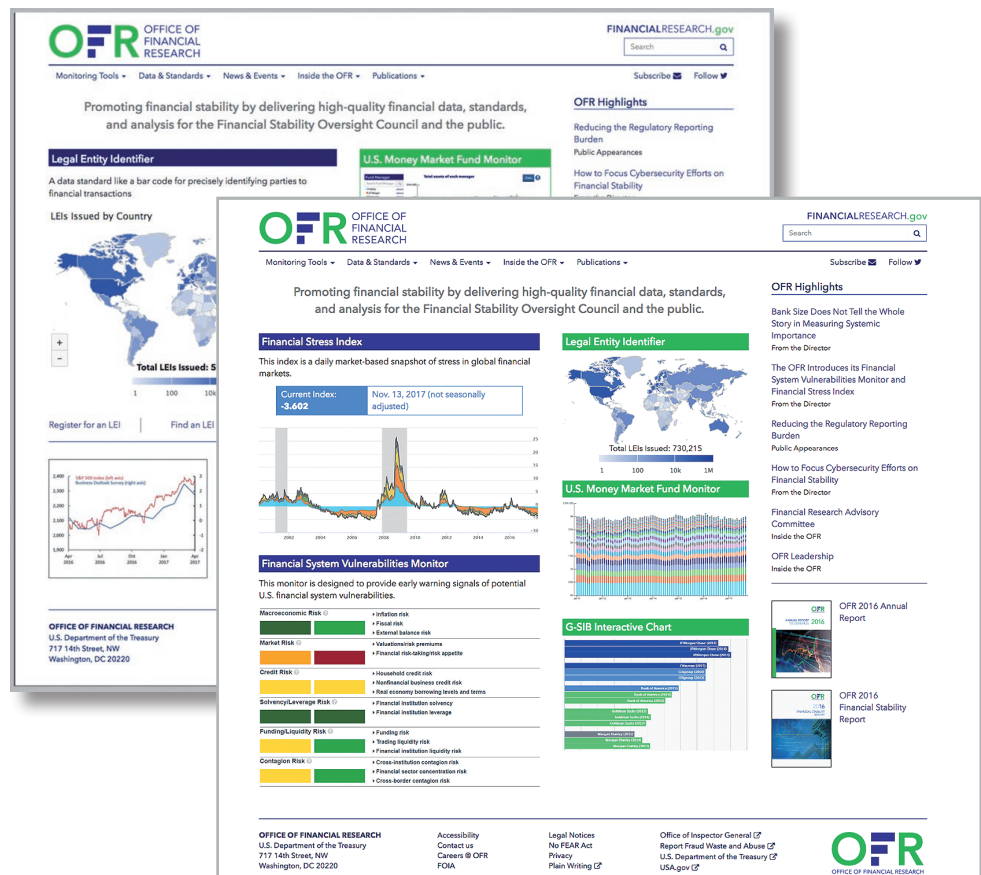
As a result, we decommissioned several systems and discontinued certain products in favor of better and more cost-effective alternatives. We also found opportunities to reduce or eliminate some unused or less-needed services and capabilities, develop a streamlined review process for new system and software requests, and reduce our dependency on less-effective traditional database management systems.

We are taking the steps necessary to ensure that our cloud infrastructure will provide the same level of protections as our internal infrastructure, and will comply with all federal security guidance.

## Other Initiatives

The OFR Technology Center supported a number of other projects during FY 2017, including:

- redesigning [www.financialresearch.gov](http://www.financialresearch.gov), our public website;
- developing publicly available monitoring tools;
- enhancing our internal knowledge catalog and metadata repository;
- helping OFR researchers and analysts make the best use of the power of our analytic systems, reducing the processing time of models that require high-performance or high-volume computing;
- upgrading our internal collaboration and workflow automation platform; and
- expanding use of our chart and data automation systems.



2017 redesign of the OFR website, [FINANCIALRESEARCH.gov](http://FINANCIALRESEARCH.gov)



SUPPORT

ALTERNATIVE

REFERENCE RATES

COLLECT REPO

DATA EVALUATE

BANKRUPTCY

CHANGES

CROSS-MARKET

SURVEILLANCE

BROADER LEI

ADOPTION MAP

EFFECTS OF

CYBERSECURITY

THREATS

We are basing our agenda for FY 2018 on the needs of our key stakeholders. To implement this agenda, we have identified our key stakeholders and their needs and mapped out strategies for determining and serving those needs during the year.

Our priorities include:

- **Support alternative reference rates and collect bilateral repo data** – We have been collaborating with the Federal Reserve and Federal Reserve Bank of New York to develop an alternative to LIBOR, an interest rate benchmark that was formerly known as the London Interbank Offered Rate but is now called ICE LIBOR (Intercontinental Exchange LIBOR). We also collaborated with the Federal Reserve and the SEC on two voluntary pilot projects in 2015 to explore how to collect data about bilateral repurchase (repo) agreements and securities lending transactions. In FY 2018, we plan to undertake a rulemaking to establish an ongoing data collection covering some repo transactions. These data might be useful in calculating the selected LIBOR alternative, called the Secured Overnight Financing Rate.
- **Evaluate potential bankruptcy changes** – The OFR and the Government Accountability Office are evaluating whether potential changes to bankruptcy laws could improve the resolution — successful restructuring or liquidation — of a failing systemically important financial institution. As we said in Chapter 1, the failure of large and complex financial companies could transmit distress to other firms, with potentially adverse consequences for the economy.
- **Evaluate the value of cross-market surveillance** – To understand the vulnerabilities in the financial system that could be exposed by shocks, we are studying the interconnectedness of financial markets in cooperation with the SEC and the CFTC. This project to assess the cross-market connections arising from the positions of key market participants will help us understand how these connections could spread risk through the financial system.

- **Map systemic effects of cybersecurity threats and operational shocks** – We plan to continue analyzing the threat to financial stability that cybersecurity incidents and other operational failures can pose. We described this threat in Chapter 1. We also discussed in Chapter 2 our project to combine network analysis with maps (loaded with real-world data) of the financial system to identify cybersecurity threats and other operational vulnerabilities.
- **Bring about broader adoption of the Legal Entity Identifier (LEI)** – We support a recent recommendation from our Financial Research Advisory Committee to spur wider adoption of the LEI — and achieve the full benefits of this essential data standard. We are following the recommendation by brokering a series of discussions with financial industry executives and government officials to explore costs and benefits and identify hurdles that impede widespread adoption. The next step will be to find ways to overcome these hurdles.

In the next fiscal year, we also plan to explore financial data services initiatives that the FSOC could adopt to increase efficiency by reducing the time and resources expended for financial data acquisitions. We are already working with the Treasury Department’s Bureau of the Fiscal Service on pilot data acquisition contracts with selected FSOC member agencies. These contracts are for procuring financial data more efficiently and, potentially, at lower cost.

To increase efficiency, maximize performance, and reduce costs, our Technology Center will begin moving our analytic services to the cloud in FY 2018, following the plan developed during and after FY 2017. Using cloud services, organizations pay only for the capacity they use, rather than developing and maintaining complete in-house systems.

We will also relocate our OFR Web infrastructure to a new provider in fiscal 2018. The architecture we developed will allow Web and internal and external cloud systems to be seamlessly and securely integrated. This new architecture will be the foundation of the data-centric capabilities the OFR plans to develop to support FSOC members.