

PART TWO:

STATUS OF THE OFFICE OF FINANCIAL RESEARCH



Engaging and Serving Our Principal Stakeholder: The Financial Stability Oversight Council

The OFR (Office) engages and serves the Council and its member agencies by providing research and analysis to help identify threats to financial stability, fulfilling Council requests for research and analysis, and working with Council member agencies on research and data projects.

Key OFR Initiatives

By working closely with the Council, Treasury, and the Financial Research Advisory Committee (advisory committee), the OFR collaboratively identifies important issues that the Office needs to address. During FY 2023, the OFR launched several strategic initiatives that manifested in a variety of outputs, real-time monitors, research papers and briefs, Council support, data initiatives, and promotion of research around financial stability. These initiatives also addressed subject areas that are sources or targets of financial stability risk or that inform financial stability analysis.

These initiatives focused on the following:

- **U.S. Repo Market.** The OFR focused on improving transparency in the U.S. repo market, which is an integral component of the U.S. financial system that provides trillions of dollars of funding every day and facilitates trading in U.S. Treasuries and other securities. As a result, OFR researchers published two papers on the repo market.

The OFR also worked toward establishing an ongoing daily collection of data. While the OFR's cleared repo collection, which began in 2019, provides some visibility into this short-term funding market, the vast majority of these repos are being issued in the NCCBR market, where no regulator currently collects data.

In January 2023, the OFR issued a NPRM that proposed the Office fill this data gap and provide more insight into Treasury market functioning. The Office hopes this collection will help regulators and policy-makers prevent similar market disruptions by filling a gap in the data on how risks are building up in the financial system in real time.

- **JADE.** Officially launched in July 2023, JADE is the OFR-hosted platform designed for Council member agencies to analyze financial stability risks jointly. JADE will enable collaborative, interdisciplinary research on financial stability by providing Council member agencies with access to analysis-ready data, analytical software, and high-performance computing in a secure, cloud-based environment. While the OFR designed JADE to support research on a variety of financial stability topics, climate-related financial risk was the first initiative the Council identified for JADE.
- **Council Annual Report.** The OFR continued to assist the Council Secretariat by providing data, analysis, and other resources requested by the Council while preparing its annual report to Congress.

Financial Research Advisory Committee

The advisory committee provided advice to the OFR, bringing diverse perspectives from

the financial services industry and academia to inform the OFR's research and data agendas. We provided support for the advisory committee's biannual meetings, which covered the following in the past year:

- November 8, 2022: this virtual meeting included discussions of digital assets, decentralized finance, and inflation.
- May 23, 2023: this hybrid meeting included discussions of financial stability monitors, risk in the banking sector, and risk from nonbank financial institutions.

Financial Stability Conferences

The OFR recognizes the importance of exchanging ideas that inform processes for data collection, enhancing existing research, and promoting future collaborative research. To that end, the Office sponsors and hosts conferences, workshops, meetings, and seminars with external financial researchers and economists. OFR-hosted conferences included:

- **Annual OFR PhD Symposium.** The OFR hosts an annual conference for upper-year PhD candidates to present their research on financial stability and have their work reviewed and discussed by senior economists from the OFR and other federal agencies. The symposium took place on November 3, 2022.
- **Annual Financial Stability Conference.** The OFR and the Federal Reserve Bank of Cleveland co-host an annual conference focusing on topics such as changes in fiscal and monetary policy, innovations in technology and trade, and the projected economic impacts of these developments. The conference took place on November 16 and 17, 2022.

- **Inaugural Rising Scholars Conference.** For the first time, the OFR hosted an in-person conference in which a diverse group of individuals who received their PhD within the previous six years met experts in their field and received professional feedback on their work. Presentations covered a range of cutting-edge topics, from fintech and stablecoins to shadow banking and bank deposits, with a specific focus on how these issues could threaten financial stability. The conference took place on May 5, 2023.

In addition, OFR researchers presented their research at various external conferences, including:

- December 2022: Inaugural MIT Climate and Real Estate Initiative Symposium
- December 2022: Third Annual Boca Corporate Finance and Governance Conference
- December 2022: Public Sector Network's Government Innovation Conference
- December 2022: Financial Accounting and Reporting Section Midyear Meeting
- January 2023: American Economic Association Annual Meeting
- March 2023: Yale Jackson School of Global Affairs Conference—Financial Stability: Hidden Dangers and Future Directions
- March 2023: Southwest Finance Association Annual Meeting
- April 2023: University of Illinois Urbana-Champaign Research Workshop
- May 2023: The Hoyt Institute Conference on Climate Change
- June 2023: International Association of Deposit Insurers' Biennial Research Conference

- June 2023: Western Finance Association Annual Conference
- June 2023: International Association for Applied Economics Annual Conference
- September 2023: Washington Areas Network Economics Symposium at George Washington University

Publications by OFR Researchers

To promote transparency and engagement, the OFR prioritizes making most of the research available to the public. The OFR implemented several strategies to make research more accessible to a broader audience. We write the *OFR Blog* in plain language to facilitate an increase in the readership of our OFR working papers and redesigned our *Working Paper Series* cover sheets to summarize the authors' key findings and the relevance of the findings in plain language. Further, in August 2023, we expanded our social media presence by launching an official LinkedIn account, which the Office uses to update our followers about our research. We also used online services and tools that make it easier for the public to subscribe to our publications. Through these efforts, we distributed more updates on research and data initiatives to individuals who elected to receive news from the OFR than in previous years.

In addition to publishing our statutorily mandated Annual Report, OFR researchers published the following working papers and briefs—as well as the new *OFR Blog* series, which complements the working papers. All publications are available on the OFR website at www.financialresearch.gov:

- **OFR Working Papers¹⁶⁷**
 - “Digital Currency and Banking-Sector Stability,” March 22, 2023.
 - “Fragility of Safe Assets,” April 3, 2023.
 - “Can Supply Shocks be Inflationary with a Flat Phillips Curve?” April 20, 2023.
 - “Anatomy of the Repo Rate Spikes in September 2019,” April 25, 2023.
 - “Sustainability with Risky Growth,” May 16, 2023.
 - “Technology Shocks and Predictable Minsky Cycles,” June 12, 2023.
 - “The Transition to Alternative Reference Rates in the OFR Financial Stress Index,” June 27, 2023.
- **OFR Briefs¹⁶⁸**
 - “Why Is So Much Repo Not Centrally Cleared?” May 12, 2023.
 - “An Early Look into Digital-Assets Regulatory Data,” May 30, 2023.
 - “Work-from-Home and the Future Consolidation of the U.S. Commercial Real Estate Office Sector: The Decline of Regional Malls May Provide Insight,” August 24, 2023.
- **The OFR Blog¹⁶⁹**
 - “OFR’s Pilot Provides Unique Window Into the Non-centrally Cleared Bilateral Repo Market,” December 5, 2022.
 - “Hedge Fund Activities Can Influence the U.S. Treasury Yield Curve,” December 27, 2022.
 - “Risk Spotlight: OFR Identifies Three Ways DeFi Growth Could Threaten Financial Stability,” February 7, 2023.

- o “Risk Spotlight: Central Counterparties—Lessons Learned from LME’s Nickel Market Closure,” February 13, 2023.
- o “OFR Announces Events for New and Aspiring PhD Scholars,” February 28, 2023.
- o “Five Risk Areas that Financial Regulators Should Watch in 2023,” March 7, 2023.
- o “Risk Spotlight: Risk from the Real Estate Market is Limited, but Changes in Occupancy and Prices May Increase the Risk,” March 23, 2023.
- o “Five Office Sector Metrics to Watch,” June 1, 2023.
- o “Twelve Years of Promoting Financial Stability,” August 31, 2023.

Advancing Financial Stability Research

The OFR advances financial risk research in a wide range of areas critical to financial stability. We research and analyze data from across the entire financial system to identify vulnerabilities and underlying weaknesses. We also report on these risks to the Council on an ongoing basis, while leveraging collaborative partnerships to expand the scope of research.

Digital Assets

Digital assets have quickly come into focus as posing a potential risk to financial stability in the United States and abroad. The OFR is monitoring risks to provide insights that cut across segments of the financial system. Pursuant to the President’s [Executive Order on Ensuring Responsible Development of Digital Assets](#), the OFR participated in the Council’s

Interagency Digital Asset Working Group. We are exploring opportunities to learn about the new and unfamiliar business models that have arisen in the burgeoning digital assets market.

Cybersecurity Risks

Cyberattacks present an increasing threat to the global financial system. The OFR seeks to understand the relationship between cybersecurity and financial stability. The OFR acquired commercial cybersecurity assessment datasets and tools that provide insights into technological infrastructure and third-party vendor relationships of systemically important financial firms. We seek to understand how operational dependencies between institutions affect the likelihood that a cyber incident will produce cascading impacts and systemic financial risk.

Wholesale Funding and Liquidity Management

Wholesale funding includes several financing vehicles—such as interbank lending, repurchase agreements (repo), and debt securities issued for money market mutual funds—that banks and nonbanks use to expand their balance sheet. Our wholesale funding research focus expanded in 2023 to analyze the 2022 pilot repo data collection and issue an NPRM for the collection of data on NCCBR agreements.

The Office’s proposed rulemaking on NCCBR supplements a collection of cleared repo data and separate access to data on triparty repo agreements through the Federal Reserve. The proposed rulemaking would afford the OFR insight into all the major venues for wholesale funding in the United States. With this complete perspective in hand, we would be able to research topics such as financial intermediation, the financing of leverage, and the risks

associated with collateral and fire-sale effects, among other issues.

With access to collections and data acquisitions from other financial regulatory agencies, we seek to understand how financial institutions effectively manage liquidity needs and requirements.

Money Market Funds

The OFR's MMF Monitor provides critical insights into concentration and liquidity risk in short-term funding markets. Stresses on MMFs in March 2020 revealed continued structural vulnerabilities, which led to increased redemptions and stress in short-term funding markets. The FSB, working with IOSCO, is currently taking stock of the MMF policy measures adopted by FSB member jurisdictions and will issue a report by the end of 2023. The Office is undertaking a preliminary exploration of how to improve our current public monitoring.

Central Counterparties

Since the 2007-09 financial crisis, financial firms have been incentivized to clear their trades through CCPs, which have grown into key players in the global financial system. It is, therefore, crucial to assess the ability of CCPs to withstand severe market stress, which could lead to large and sudden demands for margin payments that are beyond CCPs' ability to make and could force CCPs to default. The OFR developed a new framework for assessing the adequacy of CCPs' risk management strategies and their ability to meet their obligations in conditions of severe financial stress. This is expected to provide valuable new information that is not currently available from other agencies and that will help Council member agencies understand the potential risks posed by CCPs, both in the United States and abroad.

Climate-related Financial Risks

Pursuant to the President's [Executive Order on Climate-Related Financial Risk](#), the OFR played a central role in developing the Climate-related Financial Risk: 2023 Staff Progress Report to the President in collaboration with other Council agencies. We also canvassed public and private data to provide Council member agencies with a comprehensive understanding of what data are and are not available, what perils exist, and how firms look at these data.

National Bureau of Economic Research Partnership

Catalyzed research partnership programs are an effective way to develop high-impact research-and-analysis products in frontier research areas. Due to data or expertise limitations, these partnerships are appropriate when other mechanisms for financial stability research sponsorship might not produce the same outcome with the same certainty or efficiency. The NBER—a nonprofit research organization committed to undertaking and disseminating unbiased economic research among public policymakers, business professionals, and the academic community—provides the OFR with such data, research skills, and expertise.

By partnering with the NBER through the catalyzed partnership with the NSF, the Office is looking to gain insight from the specialized research community that is actively involved in cutting-edge investigation and analysis of major economic issues, including those related to financial stability. This partnership allows our research staff to maintain focus on performing research in their areas of expertise and gain-

ing insights that will help them accomplish their mission of supporting the Council.

Intergovernmental Personnel Act Program

The IPA Mobility Program temporarily assigns personnel between the federal government and state and local governments, colleges and universities, Indian tribal governments, federally funded research and development centers, and other eligible organizations. The IPA program allows the Office to incorporate expertise from sources like the academic sector and Federal Reserve Banks to access individuals with relevant expertise.

Enhancing Our Monitors

The OFR continues to develop and enhance our tools for risk measurement and monitoring.

Short-term Funding Monitor

Short-term funding markets constitute the core of liquidity and maturity transformation in financial markets. They provide financing for financial institutions, serve as alternatives to deposits for cash investors, and can be used to obtain securities. However, these critical markets are vulnerable to disruptions as an unavoidable result of how they function. Problems facing financial institutions and other parts of the financial system often appear as stresses in short-term funding markets. As part of the OFR's mission to promote and monitor financial stability, we collect various data on these markets. The STFM presents and places these data in context with other data sources.

Financial Stress Index

The OFR FSI is a daily, market-based snapshot of stress in global financial markets. It distills information from multiple indicator categories and regions, offering insight into the drivers of financial stress. It helps the OFR monitor, compare, and understand financial-stress events. The OFR FSI offers improvements on other FSIs, including its decomposition into indicator categories and regions and its dynamic construction that allows for changes in variable composition and cross-asset relationships. Finally, empirical results suggest that the OFR FSI successfully identifies financial-stress events and helps predict changes in overall economic activity.

The OFR updated the FSI to prepare for the transition from the USD LIBOR to the SOFR. We constructed the new version of this monitor to seamlessly transition from the old LIBOR-based rates to the new robust SOFR reference rates, allowing for meaningful comparisons of financial-stress levels across time, including both before and after the LIBOR transition. This update reflects the successful adaptation of the OFR FSI to align with the changing landscape of reference rates, enhancing its ability to capture and reflect market stress levels.

Bank Systemic Risk Monitor

The OFR BSRM is a collection of key measures for monitoring systemic risks posed by the largest banks. The monitor consists of five different tabs that allow users to view Basel Committee on G-SIB Scores, U.S. G-SIB Surcharges, the OFR Contagion Index, the Leverage/Assets/Equity of the largest banks, and Short-Term Wholesale Funding in interactive, visual charts. The current version of the BSRM enhances and expands upon the [OFR G-SIB](#)

[Scores Interactive Chart](#). The Office began upgrading the data sourcing process to improve efficiency and resiliency of the product’s data pipeline from unforeseen data types, structure, and format changes.

Improving Our Data Infrastructure

The OFR develops and implements techniques to ingest, clean, and aggregate data and then make it available to the OFR, the Council, and Council member agencies for analysis and research—thus creating what we call analysis-ready data.

In-house Data Collection

Following the successful completion of the NCCBR pilot, the OFR recognized the need for a solution supporting rapid data collection, surveys, and pilots. The DCU is designed to fulfill this need and will be operational by the end of Q2 2024. The DCU is expected to enable the OFR to collect data directly from external entities under OFR rules, voluntary data pilots, surveys, and other circumstances.

The requirements of the DCU are straightforward: to securely receive and store files and data from external entities. Additionally, the DCU verifies and authenticates submitters’ credentials. Upon receipt of the files, the DCU sends a notification of acceptance or rejection of the submissions.

The technological needs of the DCU were defined in late 2022. The DCU infrastructure was set up with technologies already available to the OFR. Using existing technologies not only accelerates the DCU implementation but also facilitates the DCU’s integration into the OFR technological landscape.

In 2023, the Office completed the initial build and testing of the file-level DCU criteria implementation. The DCU will go through a security assessment executed by the OFR’s Information Security team, and after that, it is expected to go into production in early 2024. The DCU is a critical component of our data collection capabilities, and we may use it for the NCCBR collection.

Interagency Data Inventory

Updated annually, the IDI is a catalog of the data collected by federal financial regulators and may help Council member agencies identify data gaps and avoid duplication in designing new data collections. The inventory does not contain data but rather metadata on each collection. Each item in the inventory contains a brief description of the data collection and basic information on it, such as the collecting organization, the name and number of the form used to collect the data, and the type of collection (e.g., financial or supervisory). While these metadata are publicly available, they are sometimes difficult to find. The inventory allows users to easily search for what data collections exist to improve their research. Each Council member agency determines which of its data collections to include in the inventory.

The OFR updated the IDI with new inputs and edits from Council member agencies. Our updates include reformatting the IDI, condensing the data type columns from seven to one, including a new field to indicate whether a given dataset uses the LEI, and implementing drop-down selectors for several columns to make the information easier to find.

The IDI is being evaluated for improvements designed to convert it from a downloaded file into an interactive digital experience that could also improve the process of collecting inputs from Council member agencies.

Increasing Access to Data and the OFR's Data-sharing Capability

JADE

The OFR's JADE initiative will provide Council member agency researchers with shared access to high-performance computing, statistical software, data, and analytical support services in a secure, cloud-based environment for approved financial stability research. Phase 1 was released in July 2023, after conducting 14 weeks of rigorous user acceptance testing with seven Council member agencies to confirm the platform's capabilities. Onboarding of Council member agency researchers has begun, with plans to provide access to additional agencies in FY 2024.

Obtaining data for financial stability research can be a challenging and lengthy process due to three main dependencies: (1) data acquisitions, (2) extract, transform, and load operations, and (3) data curation and access. By centralizing these efforts for JADE for approved Council-sponsored projects, Council member agencies will be able to benefit from economies of scale, thereby reducing the cost, time, and effort involved in getting access to data, tools, and computing power for financial stability research.

Based on the President's [May 2021 executive order](#), JADE's initial focus is on supporting research into climate-related financial risk. Going forward, JADE will incorporate other data types to support interdisciplinary financial stability research based on Council priorities.

Enhancing Data Standards

U.S. and International Leadership in Financial Data Standards

The OFR continued to fulfill our mission to promote financial stability by delivering high-quality financial data standards to support the Council. We participated in U.S. and international standards development initiatives to promote and advocate for adopting financial data standards. Specific examples include the following:

- **LEI.** The OFR continued to lead and promote the adoption and expanded use of the LEI, an international data standard (ISO 17442) to identify legal entities in a financial transaction. As Treasury's representative to the ROC, we contributed to the decision-making of the ROC's Plenary and Executive Committee and as Chair of the Level 2 Working Group. Level 2 data are about an entity's direct and ultimate accounting consolidating parent. Additionally, as a member of the ROC's Data Quality Working Group, the OFR contributed to improving the quality of LEI data. This was accomplished via a survey of LEI issuers to identify key areas for analysis. Also, as of September 2023, more than 2.3 million LEIs have been issued worldwide, with approximately 12% having been issued to U.S. entities. The total number of LEIs issued represents a year-to-date increase of 8%, which follows a 12% increase in 2022.
- **ROC Secretariat.** The OFR continued in our role as Secretariat for the ROC by providing administrative and operational

support. During this time, we assisted in planning, tracking, and reporting on the work of the ROC's Plenary Committee, Executive Committee, and subcommittees. This included providing an OFR-hosted digital collaboration workspace.

International Organization for Standardization

The OFR continued contributing and providing leadership to ISO Technical Committee 68 Financial Services (TC 68). Specific examples of our work with the committee include the following:

- **WG 11 – ISO 17442 LEI Part 3.** The OFR contributed subject matter expertise to the group that is developing Part 3 of the ISO 17442 LEI standard. Part 3 will specify using *verifiable LEIs*, which are digital credentials that provide remote verification of legal entities owning LEIs.
- **WG 1 – ISO 20022 Semantic Models and WG4 – Revision of ISO 20022.** The OFR contributed subject matter expertise to the group that is working to advance the ISO 20022 standard, which is a common platform for developing messages for financial services. As a proof-of-concept, we provided a semantic model in OWL.
- **TG 1 – Communications.** The OFR continued to serve as Convenor of the Communications Group, responsible for sharing news and articles relevant to the work of TC 68. This information is shared via the group's newsletter and published on TC 68's website. This past year, TC 68 hosted four webinars introducing TC 68 members to the Ukrainian financial community.
- **AG 5 – Digital Currencies.** The OFR actively participated in the advisory group leading a TC 68-wide project on digital currencies. The group evaluates ISO standards to determine their fitness for digital currency processes. The OFR provided project management support and contributed to developing project documents and digital currency analysis. We proposed the formation of a joint working group to develop a standard vocabulary and taxonomy for digital currencies.

- **SLG – Strategic Leadership Group.** The OFR contributed to information sharing, planning, and decision-making in the Strategic Leadership Group. We also contributed to drafting resolutions for TC 68's plenary and status reports.
- **Liaison to TC 307 Blockchain and Distributed Ledger Technologies.** In 2023, the OFR was appointed as the ANSI (U.S.) Liaison representative between ISO TC 68 Financial Services and TC 307 Blockchain/Distributed Ledger Technologies. In this leadership role, we helped launch a working group to standardize the vocabulary and taxonomy for blockchain and Distributed Ledger Technologies in financial services. This will help create a common understanding of the terms and definitions and will enable greater interoperability and comparability for these data.

Accredited Standards Committee X9, Inc.

ASC X9 is accredited by the ANSI to develop and maintain voluntary consensus standards for the U.S. financial services industry and is the U.S. voting body to TC 68. The OFR continued to contribute to ASC X9 initiatives; specific examples include the following:

- **Board of Directors and Executive Committee.** The OFR continued to provide twice-yearly subcommittee reports to the

Board, as well as status reports on specific work in monthly Executive Committee meetings.

- **X9A Electronic and Emerging Payments Subcommittee.** The OFR was reelected to serve another term as Vice Chair of this subcommittee and lead regular reviews and reaffirmation of standards in our purview. Specific standards include electronic benefits transfers, financial transaction card message interchanges, and retail merchant codes. As part of this work, we led multiple subcommittees in a response for comment on the development of digital assets and CBDC from the NITRD program's fast-track action committee.
- **X9A1 Distributed Ledger Terminology Work Group.** The OFR continued to chair the subgroup and led the launch of a technical report ("Risk Assessment Framework for Bank Provided Crypto-Asset Custodial Accounts"). In parallel, the group launched a maintenance review of the X9.138-2020 Distributed Ledger Terminology standard. These standards will fill known gaps in emerging Distributed Ledger Terminologies and operational and technical risk assessments.
- **X9D Securities Subcommittee.** The OFR continued to chair this subcommittee and contribute as U.S. representatives to multiple ISO working groups and analyses.
- **ISO 24366 NPI Mirror Group.** The OFR continued to chair the X9D mirror group to SC 8/WG 7 NPI. In this role, we obtained the input of U.S. experts on the draft ISO Technical Report as the basis to develop Part 2 of the NPI standard.
- **Industry Forum for Financial Terms Harmonization.** The OFR continued to chair this forum, where members advanced their analysis of terms and definitions for

financial instruments to provide input for future releases of the FIRD. Separately, we launched a collaboration site for members to provide document comments and input to guide the future release of the FIRD.

Other Data Standards Initiatives

Under the auspices of the NITRD program, the OFR and other U.S. agencies partnered with the White House Office of Science and Technology Policy and the NSF to develop the National Standards Strategy for Critical and Emerging Technologies, which was released in May 2023. We also provided standards expertise to the National Objectives for Digital Assets Research and Development group and continued serving as subject matter experts in Treasury's Central Bank Digital Currency Working Group.

The Financial Data Transparency Act was signed into law by President Biden on December 23, 2022, as part of the National Defense Authorization Act and requires a joint rulemaking by the agencies listed in the Act. The result of the rulemaking will be standards for data collected by financial regulators and data collected on behalf of the Council, including a non-proprietary LEI available under an open license and machine-readable data. In 2023, OFR and the SEC co-led informal meetings with Council members from the eight covered agencies (Treasury, SEC, Federal Reserve, FDIC, CFPB, FHFA, OCC, and NCUA), to initiate analysis of the Act to meet the proposed rulemaking deadline of June 2024.

Enhancing the Financial Instrument Reference Database

Financial Instrument Reference Database

Data describing financial instruments are often complex, incomplete, and incompatible with each other. These weaknesses may impede companies and investors in managing their risk. The OFR developed the FIRD to address these issues.

The first phase of the FIRD established a set of granular data elements that are the basis for describing financial instruments. This foundational component is a data dictionary that leverages the ISO 20022 international standard for the development of financial messages, data elements of the FIX Protocol, and the data dictionary provided by the ACTUS Financial Research Foundation. Future phases of the multiyear rollout of the FIRD will build on this foundation. The FIRD provides the terms and definitions for five asset classes: Equity, Debt, Option, Warrant, and Future. Within the ACTUS Algorithmic Financial Contract Standard, the ACTUS Data Dictionary and the ACTUS Algorithms represent financial instruments by their contractual cash flow obligations. In FY 2023, we completed the integration of the ACTUS standard.

Improving Decision Making

The OFR is committed to evidence-based decision-making. The Office fosters a culture of

results, accountability, and high performance, using data to inform decision-making.

Integrated Planning and Enterprise Risk Management

The OFR's Integrated Planning program pulls together conversations about strategy, tactical planning, resources, organizational performance, and enterprise risk so that we can efficiently and effectively map the work needed to advance our mission. This enables transparent alignment of strategic priorities, the initiatives that advance those priorities, and the resources required to achieve them. During FY 2023, we sustained our focus on Integrated Planning by:

- continuing to use our Integrated Planning and Enterprise Risk Management approach to engage OFR leadership and staff on enterprise strategy and risk, tactical planning, resource management, and organizational performance management;
- leveraging executive and leadership planning retreats and quarterly enterprise strategy and risk discussions to identify strategic opportunities and risks, develop short and long-term plans, and use performance and other information to make data-driven decisions;
- mapping out the work needed to advance the OFR's mission and the resources to do so effectively, efficiently, and sustainably;
- piloting quarterly risk-focused discussions with staff-level subject matter experts to identify emerging issues and opportunities;
- piloting quarterly division-level leadership consultations on organizational performance, thus creating more opportunities to pivot and make trade-off choices in real time; and

- refining leadership data visualizations in support of evidence-based decision-making.

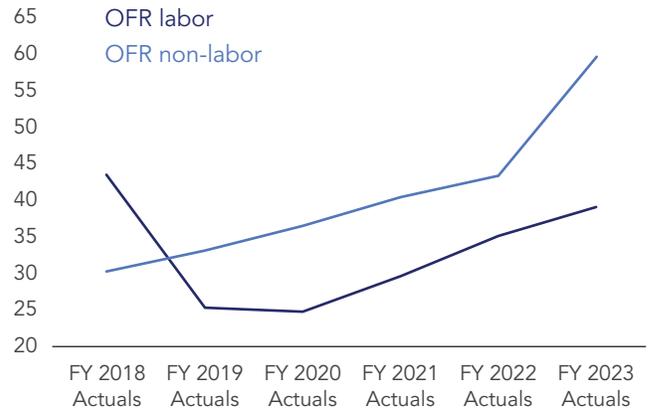
Investments

The OFR’s annual budget and workforce plan cascade from the OFR’s Integrated Planning activities. Pursuant to the Dodd-Frank Act, the OFR Director consults with the Council Chairperson to establish the OFR annual budget and workforce plan. The Office is funded through semiannual Financial Research Fund assessments.

For FY 2023, the OFR obligated \$98.9 million, 39% for labor and 61% for nonlabor expenses. This funding directly supported our strategic priorities and represents a 29% budget increase from FY 2022 to meet the priorities of the Council, Treasury, and the Administration. This increased funding enabled us to expand our in-house data collection capabilities and operationalize JADE, enabling collaborative, interdisciplinary research on financial stability by Council member agencies.

The OFR’s shared-services agreement with Treasury helps reduce or eliminate duplicative expenses in centralized services. The shared-services program cost \$8.9 million in FY 2023 for support services for the Office’s human capital (e.g., payroll, recruitment, benefits, agency-wide systems for training), finance (i.e., budget and acquisition), security processing, and travel programs. Support services also came from Treasury’s information technology shared services, Security Operations Center, and Continuous Diagnostics and Monitoring. These expenses reduce the need for duplicative functions and allow us to focus the efforts of our workforce on areas closest to our mission.

Figure 76. OFR Funds Obligated in FYs 2018-23 (\$ millions)



Source: OFR

Understanding Workforce Needs

The OFR continues to make significant progress on our *Workforce Plan 2020–2024* by addressing recruitment and workforce development and training gaps.

Recruitment

Recruitment remains a top priority for the OFR. In FY 2023, the Office grew our team by 12% and thus reduced gaps in subject matter expertise. We filled multiple critical leadership positions in the OFR’s procurement and information technology programs. We also added considerable expertise and bench strength to its RAC, IT, and Operations teams.

OFR management is dedicated to developing and retaining a diversified workforce that exhibits increased morale, heightened creativity, and innovation. To support our diversification efforts, we continue to share job opportunity announcements broadly—including through our DEIA partners—and enlist advertising space from trade journals and social science communities to expand awareness of employment opportunities with the OFR. In addition, the Office has encouraged flexibility in work locations, broadening the applicant pool nationally to attract the best talent.

Staff Realignment

The OFR continues to transform our organization in support of the mission by deliberately realigning positions with mission priorities to help ensure appropriate resourcing. OFR leadership realigned positions within RAC, IT, and the Operations Division based on known and emerging strategic priorities for mission-driven research and analysis work sup-

porting our financial stability mandate. These changes allowed the Office to meet increased demand for OFR-sponsored data, research, and other services for the Council. The changes also help ensure we have the critical bench strength, organizational design, and expertise to carry out mission-essential functions.

Learning and Development

The OFR is committed to fostering a learning culture and growth mindset that aligns with our workforce strategy and supports our employees’ learning and development needs. We continued to improve our comprehensive learning and development program via an OFR-specific learning and development needs assessment. This assessment targeted areas specific to the Office’s unique mission and the technical needs of its staff. OFR management believes that strong investment in employee learning and development addresses potential skill gaps effectively and is a critical tool for recruiting and retaining world-class talent.

In addition to program development, we invested in several enterprise-wide learning opportunities, including but not limited to change management practitioner certification, agile mindset, and data analytics training. The Office also supported organizational memberships, such as with the NCMA, that connect the OFR team with leading practices in their respective disciplines.

Employee Engagement

OFR management strongly encouraged employee participation in the annual FEVS, and the Treasury’s Inclusion Survey. OFR management reviewed the surveys to monitor progress toward improving the Office’s organizational climate, fostering employee engagement, and maintaining a culture of

accountability and professionalism at every level of the organization. While the Office celebrates continued improvements, the OFR's leadership remains committed to focusing on organizational excellence in recruitment, retention, and employee development as one of our methodologies for enhancing employee engagement.

We partnered with the Treasury to continue enhancing our employee engagement and meet the President's Management Agenda, specifically by measuring metrics that aid in reducing employee engagement gaps. This effort focused on:

- improving the approach to human capital management to better attract, recruit, retain, and promote a diverse workforce;
- enhancing executive performance management practices and standards;
- leveraging training and development;
- improving the organizational climate; and
- reviewing the results of the annual FEVS and Treasury Inclusion Survey.

Modernizing Technology

The OFR made significant technological advances by optimizing our cloud environments, enhancing services while also lowering costs, and deploying new cloud services in support of JADE and the DCU. Building on the Office's successful migration from legacy data centers to the cloud, along with employing high-performance computing capabilities in the cloud, we were able to adopt forward-thinking strategies and the latest technologies to develop a completely cloud-based environment for JADE. We built the security infrastructure for JADE's internal environment by using our previous experience with Zero Trust architec-

ture capabilities. In addition, we automated services in core areas and continued expanding our investment in cybersecurity services to help ensure the protection and availability of OFR data.

Zero Trust

We prioritized the implementation of Zero Trust cybersecurity capabilities to mitigate agency cyber risk and help ensure the protection of data. The OFR is working to advance the understanding of Zero Trust foundational principles and their capabilities to help ensure the adoption of the core elements of Zero Trust architecture across the Office. Our goals include:

- meeting the mandates of the [Executive Order on Cybersecurity, Office of Management and Budget Zero Trust](#) (M-22-09 and related), and CISA Zero Trust Maturity Model v2.0;
- migrating from the legacy on-premises TIC to a fully compliant CISA TIC 3.0 architecture;
- mitigating cyber-related risk to the OFR's IT, digital, and cloud data, assets, capabilities; and
- enabling growth and deployment of new cloud-based OFR services while maintaining a high level of user experience.

The OFR is committed to making consistent progress toward accelerating the maturity of deployed Zero Trust capabilities. We are taking positive steps toward meeting our overall goal of identifying, analyzing, and addressing cyber risks using Zero Trust use cases, reference architectures, and solutions architectures.

As the OFR looks forward to the next steps in its Zero Trust lifecycle, we expect to:

- continue uncovering and addressing complexities and dependencies within its fully cloud-based environment;
- use the knowledge, frameworks, and processes developed thus far to drive toward a more integrated Zero Trust architecture;
- provide a common experience for end-users and developers to take advantage of the opportunities identified in the solution architectures to continue to deploy Zero Trust risk mitigation capabilities; and
- incorporate lessons learned from the OFR environment and expand them to JADE.