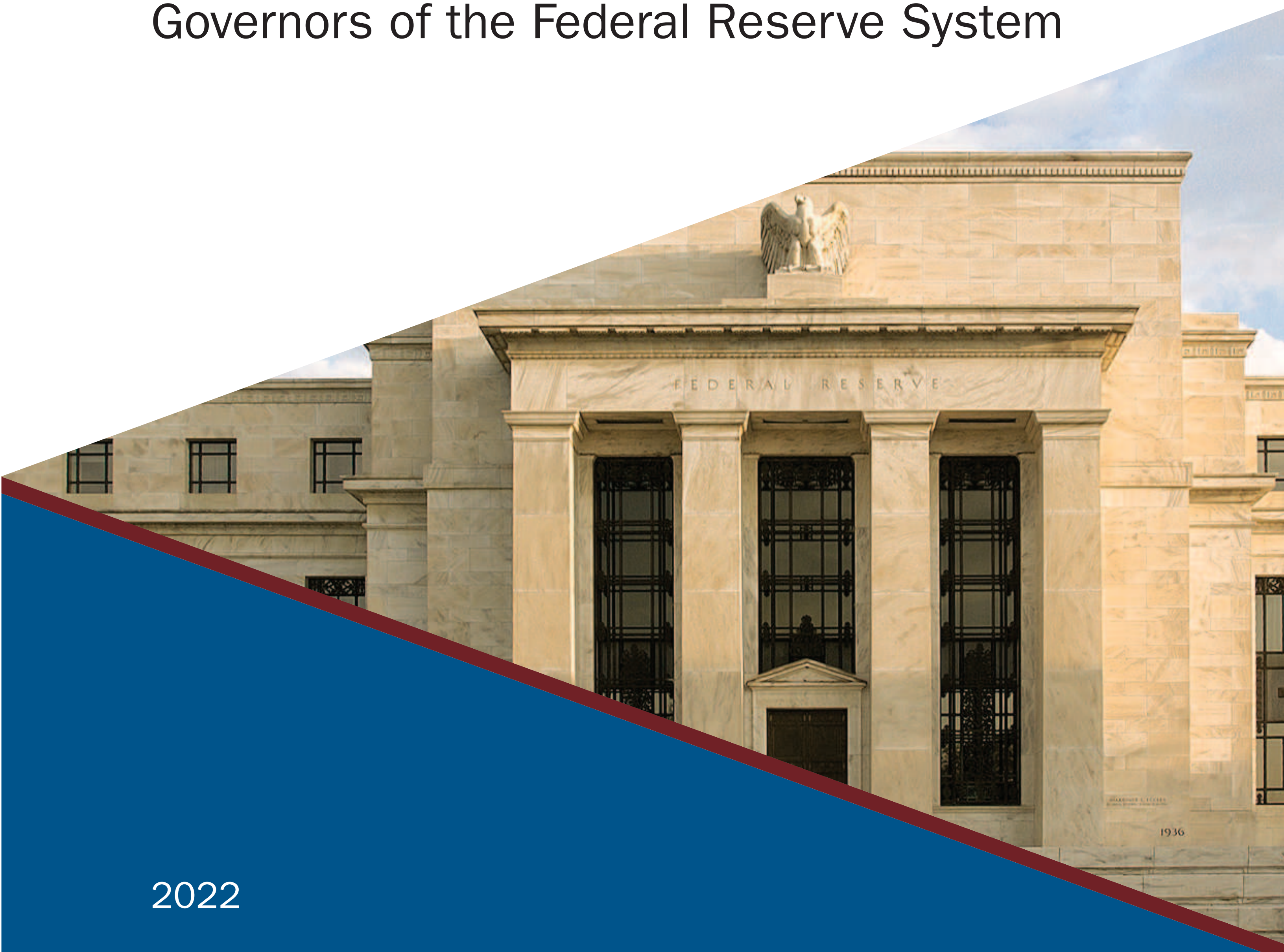
REPORT TO CONGRESS

109th
Annual Report of the Board of Governors of the Federal Reserve System



2022

BOARD OF GOVERNORS OF THE FEDERAL RESERVE SYSTEM

Contents

About the Federal Reserve

The Federal Reserve was created by an act of Congress on December 23, 1913, to provide the nation with a safer, more flexible, and more stable monetary and financial system. In establishing the Federal Reserve System, the United States was divided geographically into 12 Districts, each with a separately incorporated Reserve Bank.

For more information about the Federal Reserve Board and the Federal Reserve System, visit the Board's website at https://www.federalreserve.gov/aboutthefed/default.htm. Online versions of the Board's annual report are available at https://www.federalreserve.gov/publications/annual-report/default.htm.

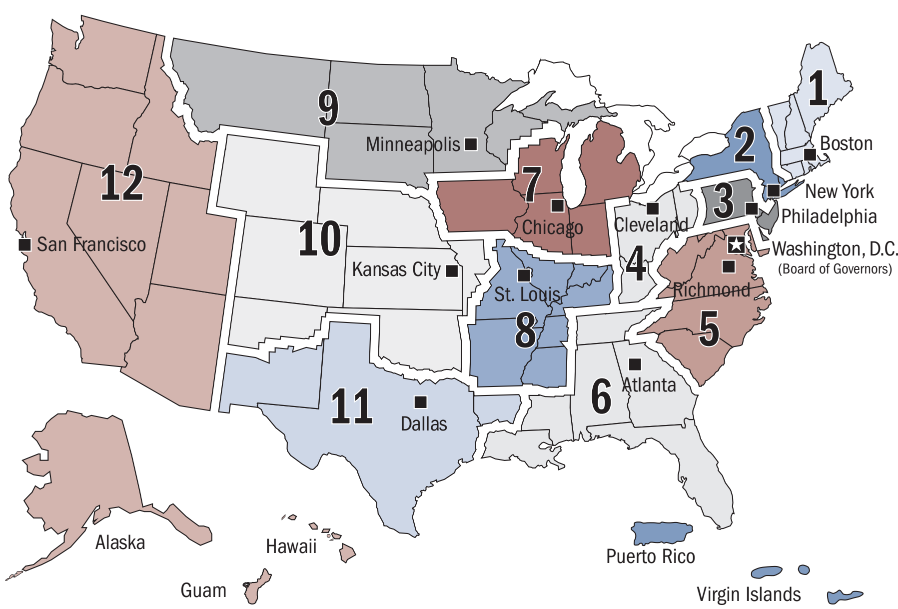
1 | Overview

This report covers the calendar-year 2022 operations and activities of the Federal Reserve, the central bank of the United States (see figure 1.1), categorized in the five key functional areas:

- **Conducting monetary policy and monitoring economic developments.** Section 2 provides adapted versions of the Board's semiannual Monetary Policy Reports to Congress.
- **Promoting financial system stability.** Section 3 reviews Board and System activities and research undertaken to foster a resilient and stable financial system.
- **Supervising and regulating financial institutions and their activities.** Section 4 summarizes the Board's efforts related to financial institution oversight and examinations, supervisory policymaking, and regulatory activities and enforcement.
- **Fostering payment and settlement system safety and efficiency.** Section 5 describes actions by the Board and Reserve Banks to promote the effectiveness of the nation's payment systems, discusses initiatives to promote payment system safety, and provides data on Reserve Bank services and income.
- **Promoting consumer protection and community development.** Section 6 provides information on the Board's efforts to promote a fair and transparent financial services market for con-

Figure 1.1. The Federal Reserve System's unique structure ensures broad perspective

The Federal Reserve System consists of 12 Reserve Banks located in major cities throughout the United States, along with a seven-member Board of Governors headquartered in Washington, D.C. See "Federal Reserve System Organization" in appendix A for more information on the Board and System leadership.



sumers, protect consumer rights, and ensure that Board policies and research take consumer and community perspectives into account.

Additional information for calendar-year 2022 on Federal Reserve leadership, policy actions, budgets as well as historical data and supporting activities can be found in the appendixes:

- Appendix A lists key officials across the Federal Reserve System
- Appendix B provides links to the minutes for each of the eight regularly scheduled meetings of the Federal Open Market Committee
- Appendix C contains information on the Federal Reserve's audited financial statements as well as reviews conducted by the Office of Inspector General and the Government Accountability Office
- Appendix D presents information on the budgets for the Board and Reserve Banks and on currency-related costs
- Appendix E summarizes policy actions of the Board of Governors
- Appendix F lists litigation, both pending and resolved, that the Board of Governors was a party in
- Appendix G includes statistical tables that provide updated historical data concerning Board and System operations and activities

2 | Monetary Policy and Economic Developments

The Federal Reserve conducts the nation's monetary policy to promote maximum employment, stable prices, and moderate long-term interest rates in the U.S. economy. This section reviews U.S. monetary policy and economic developments in 2022, with excerpts and select figures from the *Monetary Policy Report* published in March 2023 and June 2022.[1] The report, submitted semiannually to the Congress, is delivered concurrently with testimony from the Federal Reserve Board Chair.[2]

March 2023 Summary

Although inflation has slowed since the middle of last year as supply bottlenecks eased and energy prices declined, it remains well above the Federal Open Market Committee's (FOMC) objective of 2 percent. The labor market remains extremely tight, with robust job gains, the unemployment rate at historically low levels, and nominal wage growth slowing but still elevated. Real gross domestic product (GDP) growth picked up in the second half of 2022, although the underlying momentum in the economy likely remains subdued. Bringing inflation back to 2 percent will likely require a period of below-trend growth and some softening of labor market conditions.

In response to high inflation, the FOMC continued to rapidly increase interest rates and reduce its securities holdings. The Committee has raised the target range for the federal funds rate a further 3 percentage points since June, bringing the range to 4½ to 4¾ percent, and indicated that it anticipates that ongoing increases in the target range will be appropriate. The Federal Reserve has also reduced its holdings of Treasury securities and agency mortgage-backed securities by about $500 billion since June, further tightening financial conditions.

The Federal Reserve is acutely aware that high inflation imposes significant hardship, especially on those least able to meet the higher costs of essentials. The Committee is strongly committed to returning inflation to its 2 percent objective.

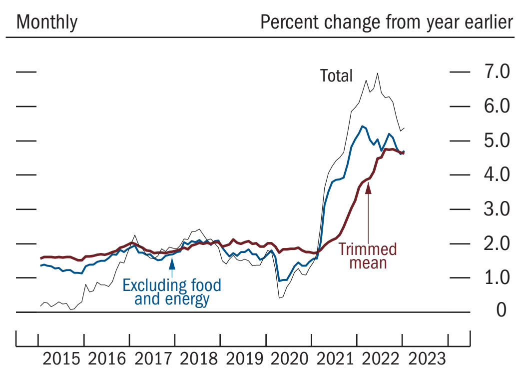
1 Those complete reports are available on the Board's website at https://www.federalreserve.gov/monetarypolicy/files/20230303_mprfullreport.pdf (March 2023) and https://www.federalreserve.gov/monetarypolicy/files/20220617_mprfullreport.pdf (June 2022).

2 As required by section 2B of the Federal Reserve Act, the Federal Reserve Board submits written reports to the Congress that contain discussions of "the conduct of monetary policy and economic developments and prospects for the future."

Recent Economic and Financial Developments

Inflation. Consumer price inflation, as measured by the 12-month change in the price index for personal consumption expenditures (PCE), was 5.4 percent in January, down from its peak of 7 percent last June but still well above the FOMC's 2 percent objective. Core PCE prices—which exclude volatile food and energy prices and are generally considered a better guide to the direction of future inflation—also slowed but still increased 4.7 percent over the 12 months ending in January (figure 2.1). As supply chain bottlenecks have eased, increases in core goods prices slowed considerably in the second half of last year. Within core services prices, housing services inflation has been high, but slowing increases in rents for new tenants in the second half of last year point to lower inflation for housing services in the year ahead. For other services, however, price inflation remains elevated, and prospects for slowing inflation may depend in part on an easing of tight labor market conditions. Measures of longer-term inflation expectations remain within the range of values seen in the decade before the pandemic and continue to be broadly consistent with the FOMC's longer-run objective of 2 percent, suggesting that high inflation is not becoming entrenched.

Figure 2.1. Personal consumption expenditures price indexes

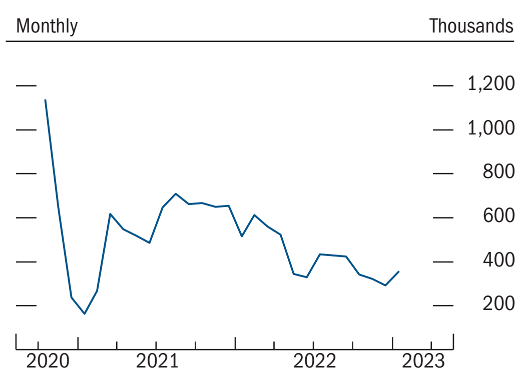


Note: The data extend through January 2023.

Source: For trimmed mean, Federal Reserve Bank of Dallas; for all else, Bureau of Economic Analysis; all via Haver Analytics.

The labor market. The labor market has remained extremely tight, with job gains averaging 380,000 per month since the middle of last year and the unemployment rate remaining at historical lows (figure 2.2). Labor demand in many parts of the economy exceeds the supply of available workers, with the labor force participation rate essentially unchanged from one year ago (figure 2.3). Nominal wage gains slowed over the second half of 2022, but they remain above the pace consistent with 2 percent inflation over the longer term, given prevailing trends in productivity growth.

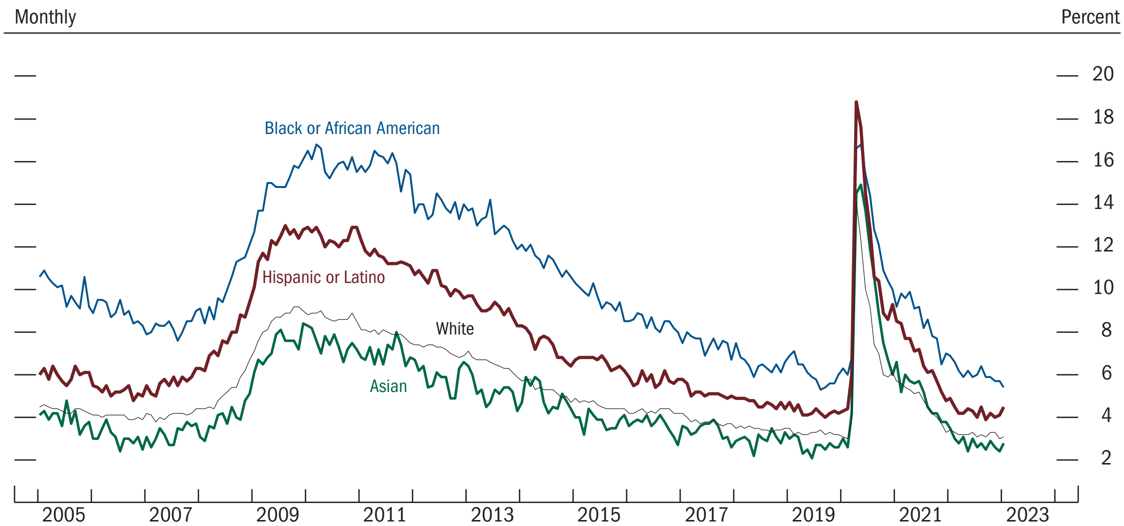
Figure 2.2. Nonfarm payroll employment



Note: The data shown are a 3-month moving average of the change in nonfarm payroll employment and extend through January 2023.

Source: Bureau of Labor Statistics via Haver Analytics.

Figure 2.3. Unemployment rate, by race and ethnicity



Note: Unemployment rate measures total unemployed as a percentage of the labor force. Persons whose ethnicity is identified as Hispanic or Latino may be of any race. Small sample sizes preclude reliable estimates for Native Americans and other groups for which monthly data are not reported by the Bureau of Labor Statistics. The data extend through January 2023.

Source: Bureau of Labor Statistics via Haver Analytics.

Economic activity. Real GDP is reported to have fallen in the first half of 2022 but to have then risen at roughly a 3 percent pace in the second half. Some of the swings in growth reflect fluctuations in volatile expenditure categories such as net exports and inventory investment. Private domestic final demand, which excludes these volatile components, rose at a subdued rate in both the first and second halves last year. Consumer spending has continued to rise at a solid pace, supported by the savings accumulated during the pandemic. However, manufacturing output declined in recent months, and the housing sector has continued to contract in response to elevated mortgage rates.

Financial conditions. Financial conditions have tightened further since June and are significantly tighter than a year ago. The FOMC has raised the target range for the federal funds rate a further 3 percentage points since June, and the market-implied expected path of the federal funds rate over the next year also shifted up notably. Yields on nominal Treasury securities across maturities have risen considerably further since June, while investment-grade corporate bond yields and mortgage rates have also increased but by less than Treasury rates. Equity prices were volatile but increased moderately on net. The rise in interest rates over the past year has weighed on financing activity. Issuance of leveraged loans and speculative-grade corporate bonds slowed substantially in the second half of the year, while investment-grade bond issuance declined modestly. Business loans at banks continued to grow in the second half of 2022 but decelerated in the fourth quarter. While business credit quality remains strong, some indicators of future business defaults are somewhat elevated. For households, mortgage originations continued to decline materially, although consumer loans (such as auto loans and credit cards) grew further. Delinquency rates for credit cards and auto loans rose last year.

Financial stability. Against the backdrop of a weaker economic outlook, higher interest rates, and elevated uncertainty since June, financial vulnerabilities remain moderate overall. Valuations in equity markets remained notable and ticked up, on net, as equity prices increased moderately even as earnings expectations declined late in the year. Real estate prices remain high relative to fundamentals, such as rents, despite a marked slowing in price increases. While market functioning remained orderly, market liquidity—the ability to trade assets without a large effect on market prices—remained low in several key asset markets, including in the Treasury market, when compared with levels before the COVID-19 pandemic. Nonfinancial business and household debt grew in line with GDP, leaving vulnerabilities associated with borrowing by businesses and households unchanged at moderate levels. Risk-based capital ratios at banks declined a touch last year but remain well above regulatory requirements. Funding risks at domestic banks and broker-dealers remain low, and the large banks at the core of the financial system continue to have ample liquidity. Prime and tax-exempt money market funds, as well as many bond and bank-loan mutual funds, continue to be susceptible to runs. (See the box "Developments Related to Financial Stability" on pages 28–29 of the March 2023 *Monetary Policy Report*.)

International developments. Foreign economic growth moderated in the second half of last year, weighed down by the economic fallout of Russia's war against Ukraine and a slowdown in China related to COVID-19. Despite some signs of easing in headline inflation abroad, core foreign inflation remains high and inflationary pressures are broad, in part reflecting tight labor markets and the pass-through of past energy price increases to other prices. In response to persistently high inflation, many major foreign central banks, along with the Fed, have tightened the stance of monetary policy significantly since June. More recently, many foreign central banks slowed the pace of their policy rate increases, signaled that such a slowing is coming, or paused policy rate hikes to take stock of the effects of policy tightening thus far on their economies.

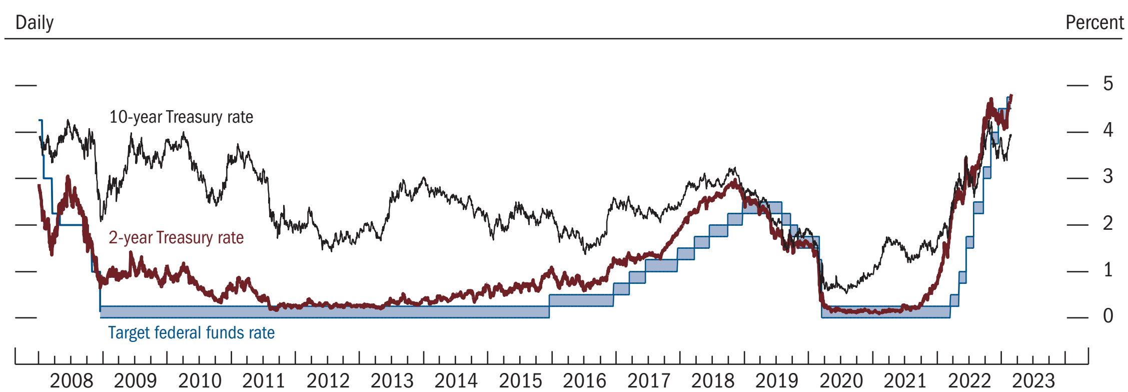
Financial conditions abroad have tightened modestly, on net, since the middle of last year. Global sovereign bond yields rose from continued tightening of foreign monetary policy and spillovers from increases in U.S. yields. Equity prices abroad rose toward the end of the year amid surprising resilience of European economies and the removal of China's zero-COVID policy. Meanwhile, the trade-weighted exchange value of the U.S. dollar is a touch higher since mid-2022.

Monetary Policy

In response to high inflation, the Committee last year rapidly increased the target range for the federal funds rate and began reducing its securities holdings. Adjustments to both interest rates and the balance sheet are playing a role in firming the stance of monetary policy in support of the Committee's maximum-employment and price-stability goals.

Interest rate policy. The FOMC continued to swiftly increase the target range for the federal funds rate, bringing it to the current range of 4½ to 4¾ percent (figure 2.4). In light of the cumulative tightening of monetary policy and the lags with which monetary policy affects economic activity and inflation, the Committee slowed the pace of policy tightening at the December and January meetings but indicated that it anticipates that ongoing increases in the target range will be appropriate in order to attain a stance of monetary policy that is sufficiently restrictive to return inflation to 2 percent over time.

Figure 2.4. Selected interest rates



Note: The 2-year and 10-year Treasury rates are the constant-maturity yields based on the most actively traded securities. The data extend through February 28, 2023.

Source: Department of the Treasury; Federal Reserve Board.

Balance sheet policy. The Federal Reserve has continued the process of significantly reducing its holdings of Treasury and agency securities in a predictable manner.[3] Beginning in June of last year, principal payments from securities held in the System Open Market Account have been reinvested only to the extent that they exceeded monthly caps.

[3] See the May 4, 2022, press release regarding the Plans for Reducing the Size of the Federal Reserve's Balance Sheet, available on the Board's website at https://www.federalreserve.gov/newsevents/pressreleases/monetary20220504b.htm.

Special Topics

Employment and earnings across groups. At the onset of the pandemic, employment fell by more for disadvantaged groups than the overall population, but tight labor market conditions over the past two years have largely reversed those movements. As the labor market tightened, employment grew faster for African Americans and Hispanics, and for less educated workers, than for other workers. Wages have grown more rapidly for these workers also, as extremely strong labor demand has outstripped available labor supply. However, while disparities in employment have largely returned to pre-pandemic levels, there remain significant disparities in absolute levels of employment across groups. (See the box "Developments in Employment and Earnings across Demographic Groups" on pages 10–11 of the March 2023 *Monetary Policy Report*.)

Weak labor supply. Even with labor demand remarkably strong, the labor force has been slow to recover from the pandemic, leaving a significant labor supply shortfall relative to the levels expected before the pandemic. More than half of that labor force shortfall reflects a lower labor force participation rate because of a wave of retirements beyond what would have been expected given demographic trends. The remaining shortfall is attributable to slower population growth, which in turn reflects both the higher mortality primarily due to COVID and lower rates of immigration in the first two years of the pandemic. (See the box "Why Has the Labor Force Recovery Been So Slow?" on pages 13–16 of the March 2023 *Monetary Policy Report*.)

Monetary policy rules. Simple monetary policy rules, which prescribe a setting for the policy interest rate based on a small number of other economic variables, can provide useful guidance to policymakers. Since 2021, inflation has run well above the Committee's 2 percent longer-run objective, and labor market conditions have been very tight over the past year. As a result, simple monetary policy rules have prescribed levels for the federal funds rate that are well above those observed over the past decade. (See the box "Monetary Policy Rules in the Current Environment" on pages 42–44 of the March 2023 *Monetary Policy Report*.)

Federal Reserve's balance sheet and money markets. The size of the Federal Reserve's balance sheet decreased as the Federal Reserve reduced its securities holdings. Reserve balances—the largest liability on the Federal Reserve's balance sheet—continued to fall. Take-up in the overnight reverse repurchase agreement (ON RRP) facility remained elevated, as low rates on repurchase agreements persisted amid still abundant liquidity and limited Treasury bill supply. The ON RRP facility continued to serve its intended purpose of helping to provide a floor under short-term interest rates and supporting effective implementation of monetary policy. Because of the significant increases in administered rates to address high inflation, the Federal Reserve's interest expenses rose considerably, and, as a result, net income turned negative. (See the box "Developments in the Federal Reserve's Balance Sheet and Money Markets" on pages 40–41 of the March 2023 *Monetary Policy Report*.)

June 2022 Summary

In the first part of the year, inflation remained well above the Federal Open Market Committee's (FOMC) longer-run objective of 2 percent, with some inflation measures rising to their highest levels in more than 40 years. These price pressures reflect supply and demand imbalances, higher energy and food prices, and broader price pressures, including those resulting from an extremely tight labor market. In the labor market, demand has remained strong, and supply has increased only modestly. As a result, the unemployment rate fell noticeably below the median of FOMC participants' estimates of its longer-run normal level, and nominal wages continued to rise rapidly. Although overall economic activity edged down in the first quarter, household spending and business fixed investment remained strong. The most recent indicators suggest that private fixed investment may be moderating, but consumer spending remains strong.

In response to sustained inflationary pressures and a strong labor market, the FOMC has been adjusting its policies and communications since last fall. At its March meeting, the FOMC raised the target range for the federal funds rate off the effective lower bound to ¼ to ½ percent. The Committee continued to raise the target range in May and June, bringing it to 1½ to 1¾ percent following the June meeting, and indicated that ongoing increases are likely to be appropriate. The Committee ceased net asset purchases in early March and began reducing its securities holdings in June.

The Committee is acutely aware that high inflation imposes significant hardship, especially on those least able to meet the higher costs of essentials. The Committee's commitment to restoring price stability—which is necessary for sustaining a strong labor market—is unconditional.

Recent Economic and Financial Developments

Inflation. Consumer price inflation, as measured by the 12-month change in the price index for personal consumption expenditures, rose from 5.8 percent in December 2021 to 6.3 percent in April, its highest level since the early 1980s and well above the FOMC's objective of 2 percent. This increase was driven by an acceleration of retail food and energy prices, reflecting further increases in commodity prices due to Russia's invasion of Ukraine. The 12-month measure of inflation that excludes the volatile food and energy categories (so-called core inflation) rose initially and then fell back to 4.9 percent in April, unchanged from last December. Three-month measures of core inflation have softened since December but remain far above levels consistent with price stability. Measures of near-term inflation expectations continued to rise markedly, while longer-term expectations moved up by less.

The labor market. Demand for labor continued to outstrip available supply across many parts of the economy, and nominal wages continued to increase at a robust pace. While labor demand remained very strong, labor supply increased only modestly. As a result, the labor market tightened further between December and May, with job gains averaging 488,000 per month and the unemployment rate falling from 3.9 percent to 3.6 percent—just above the bottom of its range over the past 50 years.

Economic activity. Real gross domestic product (GDP) is reported to have surged at a 6.9 percent annual rate in the fourth quarter of 2021 and then to have declined at a 1.5 percent annual rate in the first quarter. The large swings in growth rates reflected fluctuations in the volatile expenditure categories of net exports and inventory investment. Abstracting from these volatile components, growth in private domestic final demand (consumer spending plus residential and business fixed investment—a measure that tends to be more stable and better reflects the strength of overall economic activity) was strong in the first quarter, supported by some unwinding of supply bottlenecks and a further reopening of the economy. The most recent indicators suggest that private fixed investment may be moderating, but consumer spending remains strong. As a result, real GDP appears on track to rise moderately in the second quarter.

Financial conditions. Financial conditions have tightened significantly this year. The expected path of the federal funds rate over the next few years shifted up substantially, and yields on nominal Treasury securities across maturities have risen considerably since late February amid sustained inflationary pressures and associated expectations for further monetary policy tightening. Equity prices were volatile and declined sharply, on net, while corporate bond yields increased substantially and spreads increased notably, partly reflecting some concerns about the future corporate credit outlook. Mortgage rates also rose sharply. In turn, tighter financial conditions may have begun to weigh on some financing activity. On the business side, nonfinancial corporate bond issuance was solid in the first quarter but slowed somewhat in April and May, with speculative-grade bond issuance being particularly weak. That said, the growth of bank loans to businesses picked up, and business credit quality has remained strong thus far. For households, mortgage originations declined materially. Nevertheless, mortgage credit remained broadly available for a wide range of potential borrowers. For other consumer loans (such as auto loans and credit cards), credit standards eased somewhat further or changed little, and credit outstanding grew briskly.

Financial stability. Despite experiencing a series of adverse shocks—higher-than-expected inflation, the ongoing supply disruptions related to COVID-19, and Russia's invasion of Ukraine—the financial system has been resilient, though portions of the commodities markets temporarily experienced elevated levels of stress. The drop in equity prices and rising bond spreads suggest that valuation pressures in corporate securities markets have eased some from their previously elevated levels, but real estate prices have risen further this year. While business and household debt has been growing solidly, the ratio of credit to GDP has decreased to near pre-pandemic levels and most indicators of credit quality remained robust, suggesting that vulnerabilities from nonfinancial leverage are moderate. Large bank capital ratios dipped in the first quarter, but overall leverage in the financial sector appears moderate and little changed this year. Recent strains experienced in markets for stablecoins—digital assets that aim to maintain a stable value relative to a national currency or other reference assets—and other digital assets have highlighted the structural fragilities in that rapidly growing sector. A few signs of funding pressures emerged amid the geopolitical tensions, particularly in commodities markets. However, broad funding markets proved resilient, and with direct exposures of U.S. financial institutions to Russia and Ukraine being small, financial spillovers have been limited to date.

International developments. Economic activity has continued to recover in many foreign economies, albeit with new significant headwinds from Russia's invasion of Ukraine and COVID lockdowns in China. These headwinds have, on net, pushed commodity prices higher, worsened supply disruptions, and lowered household and business confidence, thus damping the rebound in foreign economic activity. As in the United States, consumer price inflation abroad is high and has continued to rise in many economies, boosted by higher energy, food, and other commodity prices as well by supply chain constraints. In response, many foreign central banks have raised policy rates, and some have started to reduce the size of their balance sheets.

Foreign financial conditions have tightened notably since the beginning of the year, in part reflecting the tightening in foreign monetary policy and concerns about persistently high inflation. Sovereign bond yields in many advanced foreign economies rose. Foreign risky asset prices declined, also driven by downside risks to the growth outlook amid the lockdowns in China and Russia's invasion of Ukraine. The trade-weighted value of the dollar appreciated notably.

Monetary Policy

In response to significant ongoing inflation pressures and the tightening labor market, the Committee has been adjusting its policies and communications since last fall. The Committee wound down net purchases of securities and began reducing those securities holdings more rapidly than expected and also initiated a swift increase in interest rates. Adjustments to both interest rates and the balance sheet are playing a role in firming the stance of monetary policy in support of the Committee's maximum-employment and price-stability goals.

Interest rate policy. In March, after holding the federal funds rate near zero since the onset of the pandemic, the FOMC raised the target range for that rate to ¼ to ½ percent. The Committee raised the target range again in May and June, bringing it to the current range of 1½ to 1¾ percent, and conveyed its anticipation that ongoing increases in the target range will be appropriate.

Balance sheet policy. The Federal Reserve began reducing its monthly net asset purchases last November and accelerated the reductions in December, bringing net purchases to an end in early

March. In January, the FOMC issued a set of principles regarding its planned approach for significantly reducing the size of the Federal Reserve's balance sheet. Consistent with those principles, the Committee announced in May its specific plans for significantly reducing its securities holdings and that these reductions would begin on June 1.[4]

The Committee acutely recognizes the significant hardship caused by elevated inflation, especially on those least able to meet the higher costs of essentials. The Committee is strongly committed to restoring price stability, which is necessary for sustaining a strong labor market.

Special Topics

Labor market disparities. The labor market recovery over the past year and a half has been robust and widespread as the labor market effects of the pandemic have eased, with particularly strong improvement among groups that had suffered the most. As a result, employment and earnings of nearly all major demographic groups are near or above their levels before the pandemic, and employment rates are again near multidecade highs. However, there remain notable differences in employment and earnings across groups that predate the pandemic.

Developments in global supply chains. Supply chain bottlenecks remain a major impediment for domestic and foreign firms. While U.S. manufacturers have been recording solid output growth for more than a year, order backlogs and delivery times remain high, and producer prices have risen rapidly. Further risks to global supply chains abound. In China, COVID-19 lockdowns drove the largest monthly declines in industrial production there since early 2020 while also disrupting internal and international freight transportation. In addition, the war in Ukraine continues to put upward pressure on energy and food prices and has raised the risk of disruption in the supply of inputs to some manufacturing industries.

Monetary policy rules. Simple monetary policy rules, which relate a policy interest rate to a small number of other economic variables, can provide useful guidance to policymakers. Many simple policy rules prescribed strongly negative values for the federal funds rate during the pandemic-driven recession. With inflation running well in excess of the Committee's 2 percent longer-run objective, a strong U.S. economy, and tight labor market conditions, the simple monetary policy rules considered here call for raising the target range for the federal funds rate significantly.

Global inflation. Inflation abroad rose rapidly over the past year, reflecting soaring food and commodity prices, pandemic-related supply disruptions, and demand imbalances between goods and services. The price pressures have been amplified by the war in Ukraine and COVID-19 lockdowns

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[4] See the May 4, 2022, press release regarding the Plans for Reducing the Size of the Federal Reserve's Balance Sheet, available on the Board's website at https://www.federalreserve.gov/newsevents/pressreleases/monetary20220504b.htm.

in China. Although the recent inflation surge was concentrated in volatile components, such as food and energy, price increases have broadened to core goods and services.

Global monetary policy. With inflation rising sharply across the globe, many central banks have tightened monetary policy. Policy tightening started last year as some emerging market central banks, particularly those in Latin America, were concerned that sharp increases in inflation could become entrenched in inflation expectations. Since fall 2021, many central banks in the advanced foreign economies have also started tightening monetary policy or are expected to do so soon, and several central banks that had expanded their balance sheets over the past two years are now allowing them to shrink.

Developments in the Federal Reserve's balance sheet. Following the conclusion of net asset purchases, the balance sheet remained stable at around $9 trillion. Alongside the removal of policy accommodation—through actual and expected increases in the policy rate—plans for shrinking the size of the balance sheet were announced in May and were initiated in June. Despite the size of the balance sheet remaining steady, reserve balances fell, in large part because of increasingly elevated take-up at the overnight reverse repurchase agreement (ON RRP) facility, which reached a record high of $2.2 trillion. In an environment of ample liquidity, limited Treasury bill supply, and low repurchase agreement rates, the ON RRP facility continued to serve its intended purpose of helping to provide a floor under short-term interest rates and to support effective implementation of monetary policy.

3 | Financial Stability

The Federal Reserve monitors financial system risks and engages at home and abroad to help ensure the system supports a healthy economy for U.S. households, communities, and businesses.

In pursuit of continued financial stability, the Federal Reserve monitors the potential buildup of risks to financial stability; uses such analyses to inform Federal Reserve responses, including the design of stress-test scenarios and decisions regarding other policy tools such as the countercyclical capital buffer; works with other domestic agencies directly and through the Financial Stability Oversight Council (FSOC); and engages with the global community in monitoring, supervision, and regulation that mitigate the risks and consequences of financial instability domestically and abroad.[1]

This section discusses key financial stability activities undertaken by the Federal Reserve over 2022, which include the following:

1. Monitoring vulnerabilities that affect financial stability (see figure 3.1 for a summary of key vulnerabilities)
2. Promoting a perspective on the supervision and regulation of large, complex financial institutions that accounts for the potential spillovers from distress at such institutions to the financial system and broader economy
3. Engaging in domestic and international cooperation and coordination

Some of these activities are also discussed elsewhere in this annual report. A broader set of economic and financial developments are discussed in section 2, "Monetary Policy and Economic Developments," with the discussion that follows concerning surveillance of economic and financial developments focused on financial stability. The full range of activities associated with supervision of systemically important financial institutions, designated nonbank companies, and designated financial market utilities is discussed in section 4, "Supervision and Regulation."

Monitoring Financial Stability Vulnerabilities

This section describes the Federal Reserve's monitoring of vulnerabilities in the financial system during 2022.

[1] For more information on how the Federal Reserve promotes a stable financial system, see the section "Promoting Financial System Stability" in *The Fed Explained: What the Central Bank Does,* available on the Board's website at https://www.federalreserve.gov/aboutthefed/files/the-fed-explained.pdf#page=50.

Figure 3.1. The Federal Reserve assesses four key vulnerabilities in monitoring financial stability

Each quarter, Federal Reserve Board staff assess a set of four vulnerabilities relevant for financial system stability. These monitoring efforts promote financial stability by informing broader policy discussions and stimulating additional research.

Asset valuations	Borrowing by businesses and households	Leverage in the financial sector	Funding risk
Why it matters:	**Why it matters:**	**Why it matters:**	**Why it matters:**
Overvalued assets are a vulnerability because the unwinding of high prices can be destabilizing.	Excessive borrowing by businesses and households leaves them vulnerable to distress if their incomes decline or the assets they own fall in value.	Excessive leverage within the financial sector increases the risk that financial institutions will not have the ability to absorb even modest losses when hit by adverse shocks.	Funding risks expose the financial system to the possibility that investors will "run" by quickly withdrawing their funds from a particular institution or sector.

Financial institutions are linked together through a complex set of relationships, and their condition depends on the economic condition of the nonfinancial sector. In turn, the condition of the nonfinancial sector hinges on the strength of financial institutions' balance sheets, as the nonfinancial sector obtains funding through the financial sector. Monitoring risks to financial stability is aimed at better understanding these complex linkages and has been an important part of Federal Reserve efforts in pursuit of overall economic stability.

A stable financial system, when hit by adverse events, or "shocks," is able to continue meeting demands for financial services from households and businesses, such as credit provision and payment services. By contrast, in an unstable system, these same shocks are likely to have much larger effects, disrupting the flow of credit and leading to declines in employment and economic activity.

Consistent with this view of financial stability, the Federal Reserve Board's monitoring framework distinguishes between shocks to and vulnerabilities of the financial system. Shocks, such as sudden changes to financial or economic conditions, are inherently hard to predict. Vulnerabilities tend to build up over time and are the aspects of the financial system that are most expected to cause widespread problems in times of stress.

Accordingly, the Federal Reserve maintains a flexible, forward-looking financial stability monitoring program focused on assessing how the level and configuration of those vulnerabilities affect the financial system's resilience to a wide range of potential adverse shocks.

Each quarter, Federal Reserve Board staff assess a set of vulnerabilities relevant for financial stability, including but not limited to asset valuation pressures, borrowing by businesses and households, leverage in the financial sector, and funding risk. These monitoring efforts inform discussions concerning policies to promote financial stability, such as supervision and regulatory policies, as well as monetary policy. They also inform Federal Reserve interactions with broader monitoring efforts, such as those by the FSOC and the Financial Stability Board (FSB).

The Federal Reserve Board publishes its *Financial Stability Report* semiannually.[2] The report summarizes the Board's framework for assessing the resilience of the U.S. financial system and presents the Board's current assessment of financial system vulnerabilities. It aims to promote public understanding about Federal Reserve views on this topic and thereby increase transparency and accountability. The report complements the annual report of the FSOC, which is chaired by the Secretary of the Treasury and includes the Federal Reserve Chair and other financial regulators.

Asset Valuation Pressures

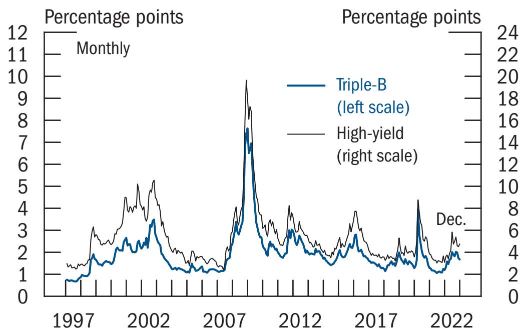
Overvalued assets are a vulnerability because the unwinding of high prices can be destabilizing, especially if the assets are widely held and the values are supported by excessive leverage, maturity transformation, or risk opacity. Moreover, stretched asset valuations are likely to be an indicator of a broader buildup in risk taking.

Nonetheless, it is very difficult to judge whether an asset price is overvalued relative to fundamentals. Accordingly, the Federal Reserve's analysis of asset valuation pressures typically includes a broad range of possible valuation metrics and tracks developments in areas in which asset prices are rising particularly rapidly, unusually high or low price volatility, and investor flows.

Amid persistently high inflation in 2022 and a very tight labor market, monetary policy tightened and the economic outlook deteriorated. Against this backdrop, yields on long-term Treasury securities rose notably, which, along with diminished risk appetite, contributed to a decline in broad equity indexes and a widening of corporate credit spreads. The valuation measures tracked for most corporate financial assets declined toward their historical averages. In contrast, valuation pressures in real estate remained high.

[2] See Board of Governors of the Federal Reserve System, *Financial Stability Report* (Washington: Board of Governors, May 2022), https://www.federalreserve.gov/publications/files/financial-stability-report-20220509.pdf; and Board of Governors of the Federal Reserve System, *Financial Stability Report* (Washington: Board of Governors, November 2022), https://www.federalreserve.gov/publications/files/financial-stability-report-20221104.pdf.

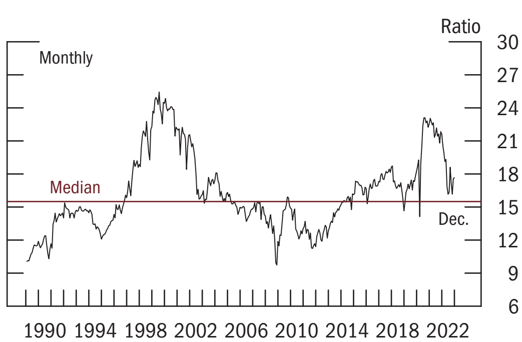
Figure 3.2. Corporate bond spreads to similar-maturity Treasury securities, 1997–2022



Note: The data extend through December 2022. The triple-B series reflects the options-adjusted spread of the ICE BofAML triple-B U.S. Corporate Index (C0A4), and the high-yield series reflects the options-adjusted spread of the ICE BofAML U.S. High Yield Index (H0A0).

Source: ICE Data Indices, LLC, used with permission.

Figure 3.3. Aggregate forward price-to-earnings ratio of S&P 500 firms, 1989–2022



Note: The data extend through December 2022. Based on expected earnings for 12 months ahead. The median value is 15.5.

Source: Federal Reserve Board staff calculations using Refinitiv (formerly Thomson Reuters), Institutional Brokers Estimate System estimates.

More specifically, prices of long-term Treasury securities and leveraged loans declined over the year, increasing yields. Spreads of corporate bond yields over comparable-maturity Treasury yields widened in the first half of 2022 but slightly narrowed toward the end of the year, consistent with signs of returning risk appetite, particularly for speculative-grade corporate bonds (figure 3.2). Amid heightened uncertainty about the economic outlook, equity prices declined and the ratio of equity prices to expected earnings, a key indicator of equity valuations, declined to near its historical median (figure 3.3). Reflecting the considerable uncertainty in the markets, implied stock price volatility for the S&P 500 index, captured by the volatility index (VIX), continued to remain elevated throughout the year.

Rising borrowing costs and tightening of lending standards have put downward pressure on home values, with various house price indexes showing small price declines since last summer. Even so, valuation pressures in the residential real estate sector remained elevated by historical standards. The price-to-rent ratio remained at the upper end of its historical distribution, supported by a tight inventory of homes for sale.

Commercial real estate (CRE) prices remained high by historical standards. However, some signs pointed to easing of valuation pressures in the CRE sector. The growth rate in CRE prices slowed markedly across all sectors because of higher vacancy rates and borrowing costs. Tighter lending standards also contributed to downward pressure on commercial property prices. Finally, farmland prices continued to increase, supported by high and rising commodity prices.

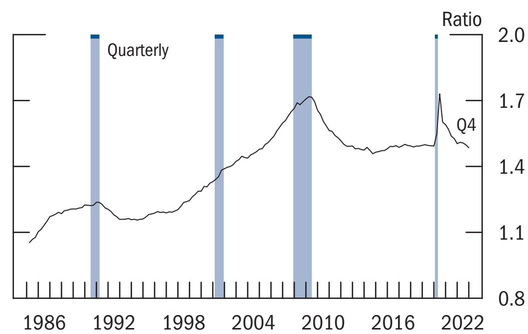
Borrowing by Households and Businesses

Excessive borrowing by households and businesses has been an important contributor to past financial crises. When highly indebted households and nonfinancial businesses are hit by negative shocks to incomes or asset values, they may be forced to curtail spending, which could then amplify the effects of financial shocks.

In turn, financial stress among households and businesses can lead to mounting losses at financial institutions, creating an adverse feedback loop in which weaknesses among households, nonfinancial businesses, and financial institutions cause further declines in income and accelerate financial losses, potentially leading to financial instability and a sharp contraction in economic activity.

The combined total debt of nonfinancial businesses and households grew roughly in line with nominal gross domestic product (GDP) in 2022, leaving the credit-to-GDP ratio essentially flat and close to its pre-pandemic level (figure 3.4).

Figure 3.4. Private nonfinancial-sector credit-to-GDP ratio, 1985–2022



Note: The data extend through 2022:Q4. The shaded bars indicate periods of business recession as defined by the National Bureau of Economic Research: July 1990 to March 1991, March 2001 to November 2001, December 2007 to June 2009, and February 2020 to April 2020. GDP is gross domestic product.

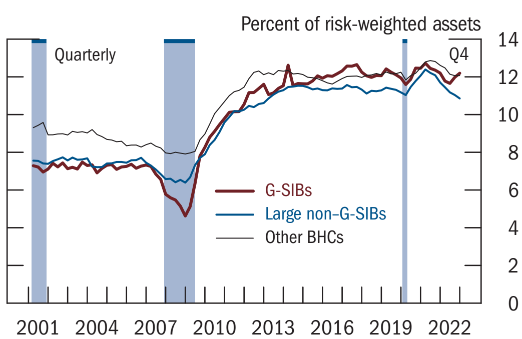
Source: Federal Reserve Board staff calculations based on Bureau of Economic Analysis, national income and product accounts, and Federal Reserve Board, Statistical Release Z.1, "Financial Accounts of the United States."

Separating the credit-to-GDP ratio into its business and household components yields some additional insights. Business debt relative to GDP was little changed in 2022. The gross leverage of large businesses—the ratio of debt to assets for all publicly traded nonfinancial firms—declined slightly but remained elevated by historical standards. In contrast, net leverage—the ratio of debt less cash to assets—trended up over the year as businesses started to run down their cash reserves. The ability of public firms to service their debt, as measured by the interest coverage ratio, improved, on net, over the year and remained high by historical standards, in part reflecting solid earnings. The adverse effect of rising interest rates on the ability of businesses to service their debt was muted, as corporate bonds—which account for the majority of the debt of public firms—generally have fixed interest rates. Although businesses with floating-rate obligations experienced significant increases in interest expenses, earnings were sufficiently strong for most firms to handle these higher interest payments without stress.

Business credit quality remained solid in 2022. The volume of downgrades and defaults remained low in the first half of the year. In the second half, default rates edged up and speculative-grade corporate bond downgrades exceeded upgrades, but they remain low by historical standards.

In the household sector, household debt relative to GDP changed little in 2022. Mortgage debt accounts for roughly two-thirds of total household debt, with new mortgage extensions skewed toward prime borrowers in recent years. Most of the remaining one-third of household debt is consumer credit, which consists primarily of student loans, auto loans, and credit card debt. Although the strength of households' balance sheets held up through 2022, with still-large buffers of excess savings, credit card and auto delinquency rates for near-prime and subprime borrowers increased significantly. This increase is attributed to the unwinding of pandemic support programs rather than a deterioration in lending standards, which remain conservative. Student loan delinquencies were held down by the extension of the repayment holiday.

Figure 3.5. Common equity tier 1 ratio of banks, 2001–22



Note: The data, which extend through 2022:Q4, are seasonally adjusted by Federal Reserve Board staff. Before 2014:Q1, the numerator of the common equity tier 1 ratio is tier 1 common capital for advanced-approaches bank holding companies (BHCs) and intermediate holding companies (IHCs) (before 2015:Q1, for non-advanced-approaches BHCs). Afterward, the numerator is common equity tier 1 capital. G-SIBs are global systemically important U.S. banks. Large non-G-SIBs are BHCs and IHCs with greater than $100 billion in total assets that are not G-SIBs. The denominator is risk-weighted assets. The shaded bars indicate periods of business recession as defined by the National Bureau of Economic Research: March 2001 to November 2001, December 2007 to June 2009, and February 2020 to April 2020.

Source: Federal Reserve Board, Form FR Y-9C, Consolidated Financial Statements for Holding Companies.

Leverage in the Financial System

During 2022, banks' common equity tier 1 ratio—a regulatory risk-based measure of bank capital adequacy—remained within the range that has prevailed since 2010, but it edged down outside the largest banks, in part because of stronger loan growth (figure 3.5). The level of tangible common equity—a measure of bank capital that excludes intangible items such as goodwill and reflects more mark-to-market losses—declined considerably over the year, driven by unrealized losses on securities in the available-for-sale (AFS) portfolio as a result of increases in interest rates.[3] Overall, bank profitability continued to be healthy in 2022, driven by rising net interest margins and new originations. Strong profitability bolsters banks' resilience, as retained earnings are the most straightforward way for banks to boost their capital position. The credit quality of bank assets has remained strong despite higher rates and economic uncertainty. Although delinquencies on

[3] Some large banks, including all global systemically important banks, also must reflect the decline in market value on their AFS portfolio in their common equity tier 1 regulatory capital ratio.

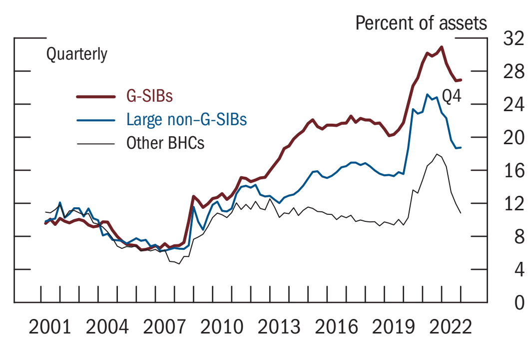
nonprime consumer loans increased significantly in 2022, they compose a small share of banks' loan portfolios.

Outside the banking sector, leverage at large life insurance companies decreased in 2022 to the middle of its historical distribution. However, life insurance companies continued to increase the share of assets allocated to risky instruments, which leaves their capital positions vulnerable to declines in the value of their investments. Based on a number of measures, leverage at hedge funds during 2022 stood above its historical average.

Funding Risk

High-quality liquid assets held by banks declined in 2022, as central bank reserves as well as Treasury and agency securities declined from their pandemic-era peaks as a fraction of total assets. Yet high-quality liquid assets remained high by historical standards (figure 3.6). Banks continued to maintain high levels of core deposits despite a decline in corporate operational deposits over the year. These deposit outflows resulted in only a slight increase toward the end of the year in banks' use of short-term wholesale funding, which still remained at historically low levels. A measure of the exposure of banks to interest rate risk—calculated as the difference between the effective time to maturity, or next contractual interest rate adjustment, for bank assets and liabilities—declined slightly in the second half of the year but remained near the top of its historical distribution.

Figure 3.6. Liquid assets held by banks, 2001–22



Note: The data extend through 2022:Q4. Liquid assets are cash plus estimates of securities that qualify as high-quality liquid assets as defined by the liquidity coverage ratio requirement. Accordingly, Level 1 assets as well as discounts and restrictions on Level 2 assets are incorporated into the estimate. G-SIBs are global systemically important U.S. banks. Large non-G-SIBs are bank holding companies (BHCs) and intermediate holding companies with greater than $100 billion in total assets.

Source: Federal Reserve Board, Form FR Y-9C, Consolidated Financial Statements for Holding Companies.

Outside the banking sector, assets under management (AUM) of money market funds (MMFs) grew rapidly in 2022. Growth in prime MMFs likely reflects faster increases in their yields relative to the yields of other MMFs and deposit rates, as short-term interest rates have risen. Combined AUM in other cash-management vehicles—such as offshore prime MMFs, short-term investment funds, private liquidity funds, and ultrashort bond funds—continued to increase and remained high by historical standards. Given their susceptibility to runs and the significant role they play in short-term funding markets, MMFs and similar cash-management vehicles remain a prominent source of vulnerability.

Amid lower valuations in 2022, the total outstanding amount of corporate bonds held by mutual funds fell to its lowest level of the past decade. Bond mutual funds experienced net redemptions throughout the year, which they managed in an orderly manner. In November 2022, the Securities and Exchange Commission proposed to make swing pricing—a liquidity management tool available to bond mutual funds—mandatory.[4] Swing pricing is intended to reduce investors' incentives to redeem from mutual funds in stress by reducing a fund's share price on days when it has outflows so that the costs arising from redemptions are imposed on redeeming investors.

Finally, stablecoins experienced significant volatility in 2022, including, in certain cases, runs. The turmoil was followed by strains throughout the digital assets ecosystem, highlighting vulnerabilities and interconnections in the space, but did not have notable effects on the traditional financial system, as interconnections remain limited. Should stablecoins grow or be widely used for payments, risks to financial and payment systems could grow.

Domestic and International Cooperation and Coordination

The Federal Reserve cooperated and coordinated with both domestic and international institutions in 2022 to promote financial stability.

Financial Stability Oversight Council Activities

As mandated by the Dodd-Frank Wall Street Reform and Consumer Protection Act, the FSOC was created in 2010. The FSOC is chaired by the Secretary of the Treasury and includes the Chair of the Board of Governors of the Federal Reserve System as a member. It established an institutional framework for identifying and responding to the sources of systemic risk. Through collaborative participation in the FSOC, U.S. financial regulators monitor not only institutions but also the financial system as a whole. The Federal Reserve, in conjunction with other participants, assists in monitoring financial risks, analyzing the implications of those risks for financial stability, and identifying steps that can be taken to mitigate those risks. In addition, when an institution is designated by the FSOC as systemically important, the Federal Reserve assumes responsibility for supervising that institution.

The FSOC continued to serve as a central venue for member agencies to collaborate as well as discuss and assess financial stability risks. In 2022, the council had four areas of priority: (1) nonbank financial intermediation, (2) Treasury market resilience, (3) climate-related financial risk, and (4) digital assets.

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[4] See Securities and Exchange Commission, *Open-End Fund Liquidity Risk Management Programs and Swing Pricing; Form N-PORT Reporting* (Washington: SEC, November 2022), https://www.sec.gov/rules/proposed/2022/33-11130.pdf.

The council continued to assess vulnerabilities associated with nonbank financial institutions. In February 2022, the council issued a statement expressing support for continued efforts to monitor and address vulnerabilities stemming from nonbank financial institutions, focusing on hedge funds, open-end mutual funds, and MMFs.[5] The Hedge Fund Working Group (HFWG) developed an interagency risk-monitoring system to assess the financial stability risks associated with hedge funds. In addition, in June 2022, the council restarted the Nonbank Mortgage Servicing Task Force meetings.

The council supports the work of the U.S. Treasury and the Inter-Agency Working Group on Treasury Market Surveillance (IAWG), of which the Federal Reserve is a member, to strengthen the resilience of U.S. Treasury markets. The work of the council's HFWG and Open-end Fund Working Group is informing the IAWG's assessment of how funds' leverage and liquidity risk-management practices affect the U.S. Treasury market.

Following the publication of its *Report on Climate-Related Financial Risk* in 2021, the council stood up its staff-level Climate-related Financial Risk Committee (CFRC) as well as an external advisory committee, the Climate-related Financial Risk Advisory Committee, which was established in October 2022.[6] The CFRC provides a forum for FSOC members to coordinate and build capacity to identify, measure, and assess climate-related financial stability risks. Board staff are active participants in each of the CFRC's working groups.

In October 2022, the council released its *Report on Digital Asset Financial Stability Risks and Regulation*.[7] The report identifies the financial stability risks posed by the digital assets ecosystem as well as gaps in the regulatory system that should be addressed to manage these risks. Moreover, the report encourages council members to continue to build capacity to analyze, monitor, supervise, and regulate crypto-asset activities.

The council's 2022 annual report reviews significant financial market developments, describes potential emerging threats to U.S. financial stability, identifies vulnerabilities in the financial system, and makes recommendations to mitigate them.[8] The report includes boxes on the following topics: stress in global markets; the rapid rise of mortgage rates; the effect of interest rate risk on banks, insurance companies, and pension funds; the protection gap and insurance; recent

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[5] See Financial Stability Oversight Council, "Financial Stability Oversight Council Statement on Nonbank Financial Intermediation" (Washington: FSOC, February 4, 2022), https://home.treasury.gov/system/files/261/FSOC_Nonbank_Financial_Intermediation.pdf.

[6] See Financial Stability Oversight Council, *Report on Climate-Related Financial Risk* (Washington: FSOC, October 2021), https://home.treasury.gov/system/files/261/FSOC-Climate-Report.pdf.

[7] See Financial Stability Oversight Council, *Report on Digital Asset Financial Stability Risks and Regulation* (Washington: FSOC, October 2022), https://home.treasury.gov/system/files/261/FSOC-Digital-Assets-Report-2022.pdf.

[8] See Financial Stability Oversight Council, *Annual Report* (Washington: FSOC, 2022), https://home.treasury.gov/system/files/261/FSOC2022AnnualReport.pdf.

developments in commodities markets; cyber-risk data collection; and the use of artificial intelligence in financial services.

Financial Stability Board Activities

In light of the interconnected global financial system and the global activities of large U.S. financial institutions, the Federal Reserve participates in international bodies, such as the FSB. The FSB monitors the global financial system and promotes international financial stability by coordinating with national financial authorities and international standard-setting bodies on information exchanges and work focused on developing strong global financial-sector policies.

In 2022, the FSB engaged in many issues related to global financial stability. Specific work included assessing liquidity mismatch in open-ended funds; evaluating financial stability risks of digital assets and decentralized finance and developing high-level policy recommendations to address them; researching the availability and use of climate vulnerabilities data; and assessing financial stability risk of—and the implications of changes in—commodities markets.

4 | Supervision and Regulation

The Federal Reserve promotes a safe, sound, and efficient banking and financial system that supports the growth and stability of the U.S. economy. The Federal Reserve carries out its supervisory and regulatory responsibilities and supporting functions primarily by

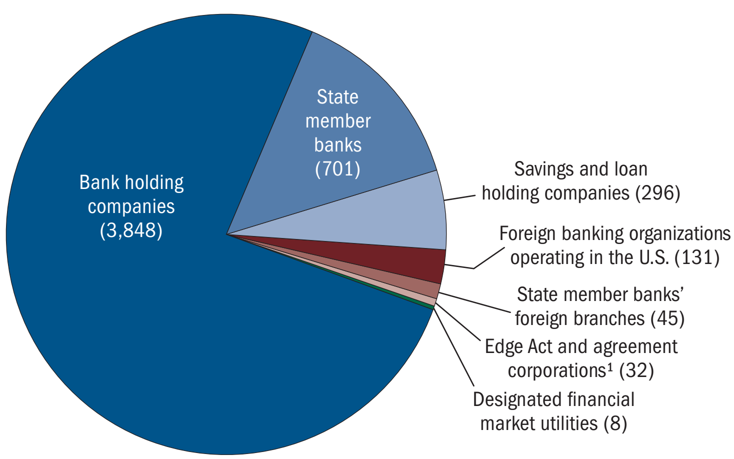
- supervising the activities of financial institutions to promote their safety and soundness (see figure 4.1);
- developing regulatory policy (rulemakings, supervision and regulation letters, policy statements, and guidance) and acting on applications filed by banking organizations; and
- monitoring trends in the banking sector by collecting and analyzing data (see box 4.1).

Box 4.1. Banking Sector Conditions

For information on banking sector conditions, see the *Supervision and Regulation Report*, which is submitted semiannually to the Senate Committee on Banking, Housing, and Urban Affairs and to the House Committee on Financial Services. The reports are available on the Board's website at https://www.federalreserve.gov/publications/supervision-and-regulation-report.htm.

Figure 4.1. The Federal Reserve oversees a broad range of financial entities

Bank holding companies constitute the largest segment of institutions supervised by the Federal Reserve, but the Federal Reserve also supervises state member banks, savings and loan holding companies, foreign banks operating in the United States, and other entities. See "Supervised and Regulated Institutions" in this section.



[1] Edge Act and agreement corporations are subsidiaries of banks or bank holding companies, organized to allow international banking and financial business.

Supervised and Regulated Institutions

The Federal Reserve categorizes banking organizations into portfolios by size and entity type, as described in table 4.1.

State Member Banks

At year-end 2022, a total of 1,420 banks (excluding non-depository trust companies and private banks) were members of the Federal Reserve System, of which 701 were state chartered. Federal Reserve System member banks operated 47,297 branches and accounted for 34 percent of all commercial banks in the United States and 68 percent of all commercial banking offices. State-chartered commercial banks that are members of the Federal Reserve, commonly referred to as state member banks, represented approximately 16 percent of all insured U.S. commercial banks and held approximately 18 percent of all insured commercial bank assets in the United States.

Table 4.1. Summary of supervised institutions

Portfolio	Definition	Number of institutions	Total assets ($ trillions)
Large Institution Supervision Coordinating Committee (LISCC)	Eight U.S. global systemically important banks (G-SIBs)	8	14.3
State member banks (SMBs)	SMBs within LISCC organizations	4	1.1
Large and foreign banking organizations (LFBOs)	Non-LISCC U.S. firms with total assets $100 billion and greater and FBOs	170	10.2
Large banking organizations (LBOs)	Non-LISCC U.S. firms with total assets $100 billion and greater	18	5.1
Large FBOs (with IHC)	FBOs with combined U.S. assets $100 billion and greater	11	3.1
Large FBOs (without IHC)	FBOs with combined U.S. assets $100 billion and greater	7	1.0
Small FBOs (excluding rep offices)	FBOs with combined assets less than $100 billion	102	1.0
Small FBOs (rep offices)	FBO U.S. representative offices	32	0.0
State member banks	SMBs within LFBO organizations	10	1.3
Regional banking organizations (RBOs)	Total assets between $10 billion and $100 billion	102*	2.8
State member banks	SMBs within RBO organizations	32	1.0
Community banking organizations (CBOs)	Total assets less than $10 billion	3,504**	2.9
State member banks	SMBs within CBO organizations	655	0.6
Insurance and commercial savings and loan holding companies (SLHCs)	SLHCs primarily engaged in insurance or commercial activities	6 insurance 4 commercial	0.9

* Includes 101 holding companies and 1 state member bank that does not have a holding company.
** Includes 3,451 holding companies and 53 state member banks that do not have holding companies.

Bank Holding Companies

At year-end 2022, a total of 3,848 U.S. bank holding companies (BHCs) were in operation, of which 3,450 were top-tier BHCs. These organizations controlled 3,512 insured commercial banks and held approximately 93 percent of all insured commercial bank assets in the United States.

BHCs that meet certain capital, managerial, and other requirements may elect to become financial holding companies (FHCs). FHCs can generally engage in a broader range of financial activities than other BHCs. As of year-end 2022, a total of 505 domestic BHCs and 46 foreign banking organizations had FHC status. Of the domestic FHCs, 23 had consolidated assets of $100 billion or more; 56 between $10 billion and $100 billion; 193 between $1 billion and $10 billion; and 233 less than $1 billion.

Savings and Loan Holding Companies

At year-end 2022, a total of 296 savings and loan holding companies (SLHCs) were in operation, of which 152 were top-tier SLHCs. These SLHCs controlled 160 depository institutions. Approximately 93 percent of SLHCs engage primarily in depository or broker-dealer activities. These firms hold approximately 50 percent ($887.7 billion) of the total combined assets of all SLHCs. The Office of the Comptroller of the Currency (OCC) or the Federal Deposit Insurance Corporation (FDIC) is the primary federal regulator for subsidiary savings associations of SLHCs. Some SLHCs are engaged primarily in nonbanking activities, such as insurance underwriting (6 SLHCs), and commercial activities (4 SLHCs). The 25 largest SLHCs accounted for more than $1.7 trillion of total combined assets.

Depository institution holding companies significantly engaged in insurance activities. At year-end 2022, the Federal Reserve supervised six companies that own depository institutions but are significantly engaged in insurance activities. All six of these institutions were SLHCs. As of September 30, 2022, they had approximately $800 billion in total assets. Three of these firms have total assets greater than $100 billion, and for five of the six, insured depository assets represent less than half of total assets.

In 2022, the Federal Reserve proposed and finalized a supervisory framework for insurance organizations that are overseen by the Board. The supervisory framework consists of a risk-based approach to supervisory expectations and activities; a unique supervisory ratings system; and reliance, to the fullest extent possible, on the work performed by other relevant supervisors, including the state insurance regulators.

The Federal Reserve's Insurance Policy Advisory Committee (IPAC) was established by the Economic Growth, Regulatory Relief, and Consumer Protection Act to provide information, advice, and recommendations on insurance issues.[1] In 2022, the IPAC completed its study of the potential impact of the International Association of Insurance Supervisors' Insurance Capital Standard (ICS) on the U.S. life insurance industry, policyholders, and markets. The IPAC provided input on the proposed criteria for comparing the ICS to the Aggregation Method, which is being developed by the United States. The IPAC offered comments on the Federal Reserve's proposed framework for the supervision of insurance organizations and the impact of climate risk on the insurance industry.

Financial Market Utilities

Financial market utilities (FMUs) manage or operate multilateral systems for the purpose of transferring, clearing, or settling payments, securities, or other financial transactions among financial institutions or between financial institutions and the FMU. The Federal Reserve supervises FMUs that are chartered as member banks or Edge Act corporations, and coordinates with other federal banking supervisors to supervise FMUs considered bank service providers under the Bank Service Company Act.

In July 2012, the Financial Stability Oversight Council voted to designate eight FMUs as systemically important under title VIII of the Dodd-Frank Wall Street Reform and Consumer Protection Act (Dodd-Frank Act). As a result of these designations, the Board assumed an expanded set of responsibilities related to these designated FMUs that includes promoting uniform risk-management standards, playing an enhanced role in the supervision of designated FMUs, reducing systemic risk, and supporting the stability of the broader financial system. For certain designated FMUs, the Board established risk-management standards and expectations that are articulated in the Board's Regulation HH.

In addition to setting minimum risk-management standards, Regulation HH establishes advance notice requirements for proposed material changes to the rules, procedures, or operations of a designated FMU for which the Board is the supervisory agency under title VIII. Finally, Regulation HH also establishes minimum conditions and requirements for a Federal Reserve Bank to establish and maintain an account for, and provide services to, a designated FMU.[2] Where the Board is not the title VIII supervisory agency, the Federal Reserve works closely with the Securities and Exchange Commission (SEC) and the Commodity Futures Trading Commission to promote robust FMU risk management and monitor systemic risks across the designated FMUs.

In 2022, the Board invited comment on proposed amendments related to operational risk management in Regulation HH.[3] The proposal would update, refine, and add specificity to the operational risk-management requirements in Regulation HH to reflect changes in the operational risk, tech-

[1] More information on the IPAC can be found at https://www.federalreserve.gov/aboutthefed/ipac.htm.
[2] The Federal Reserve Banks maintain accounts for and provide services to several designated FMUs.
[3] See press release at https://www.federalreserve.gov/newsevents/pressreleases/bcreg20220923a.htm.

nology, and regulatory landscapes in which designated FMUs operate since the Board last amended this regulation in 2014. The proposal would also adopt specific incident-notification requirements.

International Activities

Foreign operations of U.S. banking organizations. At the end of 2022, a total of 23 member banks were operating 285 branches in foreign countries and overseas areas of the United States. Eleven national banks were operating 228 of these branches, 12 state member banks were operating 45 of these branches, and 5 nonmember banks were operating the remaining 12.

Edge Act and agreement corporations. At year-end 2022, out of 32 banking organizations chartered as Edge Act or agreement corporations, 3 operated 6 Edge Act and agreement branches. These corporations are examined annually.

U.S. activities of foreign banks. As of year-end 2022, a total of 131 foreign banks from 48 countries operated 140 state-licensed branches and agencies, of which 6 were insured by the FDIC, and 49 OCC-licensed branches and agencies, of which 4 were insured by the FDIC. These foreign banks also owned 6 Edge Act and agreement corporations. In addition, they held a controlling interest in 32 U.S. commercial banks. Altogether, the U.S. offices of these foreign banks controlled approximately 17 percent of U.S. commercial banking assets. These 131 foreign banks also operated 89 representative offices; an additional 35 foreign banks operated in the United States through a representative office.

The Federal Reserve conducted or participated with state and federal regulatory authorities in 691 examinations of foreign banks in 2022.

Supervisory Developments

Supervisory and Regulatory Initiatives

The Federal Reserve's supervision activities include examinations and inspections to ensure that financial institutions operate in a safe and sound manner and comply with laws and regulations, including consumer protection. These include an assessment of a financial institution's risk-management systems, financial conditions, governance and controls, and compliance. The Federal Reserve tailors its supervisory approach based on the size and complexity of firms. Supervisory oversight ranges from a continuous supervisory presence with dedicated teams of examiners for large firms to regular point-in-time and targeted periodic examinations for small, noncomplex firms.

Supervisory priorities are focused on both previously identified supervisory findings and emerging concerns arising from changing economic conditions. Examiners monitor and assess a supervised

Table 4.2. Savings and loan holding companies, 2018–22

Entity/item	2022	2021	2020	2019	2018
Top-tier savings and loan holding companies					
Assets of more than $1 billion					
Total number	50	47	50	53	55
Total assets (billions of dollars)	1,741	1,856	2,026	1,822	1,615
Number of inspections	50	63	55	52	40
By Federal Reserve System	50	63	55	52	40
Assets of $1 billion or less					
Total number	102	107	119	134	139
Total assets (billions of dollars)	36	37	39	39	38
Number of inspections	74	78	91	102	107
By Federal Reserve System	74	78	91	102	107

institution's remediation of supervisory findings in areas such as independent risk management and controls, compliance, operational and cyber resilience, and information technology.

In 2022, the Federal Reserve conducted 289 examinations of state member banks, 2,590 inspections of bank holding companies, and 124 inspections of savings and loan holding companies. Tables 4.2 and 4.3 provide information on examinations and inspections conducted by the Federal Reserve during the past five years.

Specialized Examinations

The Federal Reserve conducts specialized examinations of supervised financial institutions in the areas of capital planning and stress testing, information technology, fiduciary activities, transfer agent activities, government and municipal securities dealing and brokering, and cybersecurity and critical infrastructure. The Federal Reserve also conducts specialized examinations of certain nonbank entities that extend credit subject to the Board's margin regulations.

Capital Planning and Stress Testing

Since the 2007–09 financial crisis, the Federal Reserve has instituted supervisory stress testing to strengthen capital positions of the largest banking organizations. In March 2020, the Board integrated the supervisory stress test with its non-stress capital requirements through the stress capital buffer to form one forward-looking and risk-sensitive capital framework.

In June 2022, the Federal Reserve conducted its annual stress test, which showed that the large banking firms tested had sufficient levels of capital and could continue lending to households and businesses during a severe recession. In August 2022, the Federal Reserve announced the individual capital requirements for large banks, which include the stress capital buffer requirement

Table 4.3. State member banks and bank holding companies, 2018–22

Entity/item	2022	2021	2020	2019	2018
State member banks					
Total number	701	705	734	754	794
Total assets (billions of dollars)	3,997	4,016	3,568	2,642	2,851
Number of examinations	524	471	502	554	563
By Federal Reserve System	289	288	263	327	321
By state banking agency	235	183	239	227	242
Top-tier bank holding companies					
Assets of more than $1 billion					
Total number	809	795	746	631	604
Total assets (billions of dollars)	25,275	25,185	23,811	20,037	19,233
Number of inspections	966	996	875	805	549
By Federal Reserve System[1]	891	919	814	761	533
By state (or other) banking agency	75	77	61	44	16
Assets of $1 billion or less					
Total number	2,672	2,762	2,887	3,094	3,273
Total assets (billions of dollars)	883	900	883	870	893
Number of inspections	1,768	1,801	1,967	2,122	2,216
By Federal Reserve System	1,699	1,727	1,890	2,033	2,132
By state (or other) banking agency	69	74	77	89	84
Financial holding companies					
Domestic	505	504	502	493	490
Foreign	46	45	44	44	44

[1] For bank holding companies subject to continuous, risk-focused supervision, includes multiple targeted reviews.

based on the results of the 2022 stress test. These requirements became effective as of October 1, 2022. For stress testing publications released in 2022, see box 4.2.

Fiduciary Activities

In 2022, Federal Reserve examiners conducted 83 fiduciary examinations of state member banks and non-depository trust companies.

Transfer Agents

During 2022, the Federal Reserve conducted transfer agent examinations at three state member banks and three BHCs that were registered as transfer agents.

Government and Municipal Securities Dealers and Brokers

The Federal Reserve is responsible for examining state member banks and foreign banks for compliance with the Government Securities Act of 1986 and with the U.S. Treasury regulations

Box 4.2. Stress Testing Publications Released in 2022

More details on the 2022 stress test scenarios are available at https://www.federalreserve.gov/newsevents/pressreleases/files/bcreg20220210a1.pdf.

More details on the 2022 stress test model methodologies are available at https://www.federalreserve.gov/publications/files/2022-march-supervisory-stress-test-methodology.pdf.

More details on the 2022 stress test results are available at https://www.federalreserve.gov/publications/files/2022-dfast-results-20220623.pdf.

More details on the stress capital buffer requirements published in 2022 are available at https://www.federalreserve.gov/publications/files/large-bank-capital-requirements-20220804.pdf.

governing dealing and brokering in government securities. During 2022, the Federal Reserve conducted five examinations of government securities activities at these organizations.

The Federal Reserve is also responsible for ensuring that state member banks and BHCs that act as municipal securities dealers comply with the Securities Act Amendments of 1975. Municipal securities dealers are examined, pursuant to the Municipal Securities Rulemaking Board's rule G-16, at least once every two calendar years. During 2022, the Federal Reserve examined four entities that dealt in municipal securities.

Securities Credit Lenders

Under the Securities Exchange Act of 1934, the Board is responsible for regulating credit in certain transactions involving the purchasing or carrying of securities. As part of its general examination program, the Federal Reserve examines the banks under its jurisdiction for compliance with the Board's Regulation U. In addition, the Federal Reserve maintains a registry of persons other than banks, brokers, and dealers who extend credit subject to Regulation U. Throughout the year, Federal Reserve examiners conducted specialized examinations of these lenders if they are not already subject to supervision by the Farm Credit Administration or the National Credit Union Administration (NCUA).

Operational Resilience, Information Technology, and Cybersecurity

Effective operational risk management and resilience are vital to the safety and soundness of financial institutions and the stability of the U.S. financial system.[4] The Federal Reserve provides tools and educational resources to assist supervised institutions in managing such risks.

- In April 2022, the Board's, the FDIC's, and the OCC's computer-security incident notification rule took effect.[5] The federal banking agencies jointly hosted an "Ask the Regulator" session on the rule for the industry.

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4 Operational risk management includes risk management of information technology, cyber, and third-party risks.

5 See https://www.federalreserve.gov/supervisionreg/srletters/SR2204.htm.

- The Federal Reserve, together with the other members of the Federal Financial Institutions Examination Council (FFIEC), published an updated Cybersecurity Resource Guide for Financial Institutions in October 2022 to help financial institutions respond to cyber incidents.[6]

The Federal Reserve examined and monitored supervised institutions for operational risks as part of its safety and soundness supervision.

- In 2022, Federal Reserve examiners, in close coordination with the other federal banking agencies, conducted examinations of IT activities (inclusive of cyber risk-management activities) and targeted cybersecurity assessments of the large financial institutions, and service providers.
- Federal Reserve examiners also conducted tailored cybersecurity assessments at community and regional banking organizations.
- Under the authority of the Bank Service Company Act, the federal banking agencies examined technology service providers that provide services for specific regulated financial institutions.

The Federal Reserve, as part of the FFIEC, also published interagency statements and guidance to assist examiners with risk-management assessments at supervised entities.

- The FFIEC issued a "Statement of Principles on Examination Information Requests," which outlines best practices for requesting examination information from supervised entities, and a common authentication solution for secure access to the FFIEC members' supervision systems.
- In August 2022, the FFIEC IT Subcommittee sponsored its annual IT Conference virtually for examiners, highlighting current and emerging technology issues affecting supervised institutions.

The Federal Reserve collaborated with other financial regulators, private industry, and international partners to promote effective safeguards against operational and cyber risks to the financial services sector and its critical infrastructure. This includes participation in the FFIEC's Cybersecurity and Critical Infrastructure Subcommittee, the Financial and Banking Information Infrastructure Committee, the Department of Homeland Security's Cybersecurity and Infrastructure Security Agency Cyber Incident Reporting Council, and the Cybersecurity Forum for Independent and Executive Branch Regulators.

The Board led or contributed to cybersecurity activities undertaken by various international groups.

[6] The FFIEC is an interagency body of financial regulatory agencies established to prescribe uniform principles, standards, and report forms and to promote uniformity in the supervision of financial institutions. The council has six voting members: the Board of Governors of the Federal Reserve System, the FDIC, the NCUA, the OCC, the Consumer Financial Protection Bureau (CFPB), and the chair of the State Liaison Committee.

- In 2022, the Federal Reserve, as part of a the G7 Cyber Expert Group, contributed to the publication of two reports addressing fundamental elements of ransomware and third-party risk within the financial sector.[7]
- The Board also continued to participate in the work of the Financial Stability Board (FSB), which resulted in the publication of a consultive document, "Achieving Greater Convergence in Cyber Incident Reporting."[8]

Crypto-Related Activities

Crypto-assets present opportunities to banking organizations, their customers, and the overall financial system, but also pose multiple IT and operations risks as well as anti-money-laundering, consumer protection and compliance, and financial stability risks.[9] Therefore, in 2022, the Federal Reserve issued SR letter 22-6/CA letter 22-6, "Engagement in Crypto-Asset-Related Activities by Federal Reserve-Supervised Banking Organizations" to address Federal Reserve-supervised banking organizations' engagement in crypto-asset-related activities.[10] The letter establishes the expectation that supervised banking organizations determine the legality of engaging in crypto-related activities. Notify the Federal Reserve prior to engaging in any crypto-asset-related activity.

Climate-Related Financial Risks

The Federal Reserve Board is working to build the resilience of large financial institutions to the financial risks of climate change. In 2022, the Board identified two, near-term supervisory priorities around climate-related financial risks. On September 29, 2022, the Board announced that six of the nation's largest banks will participate in a pilot climate scenario analysis exercise designed to enhance the ability of supervisors and firms to measure and manage climate-related financial risks. On December 2, 2022, the Board invited comment on proposed guidance for the management of climate-related financial risks for banks with more than $100 billion in total consolidated assets. The Board intends to work with the OCC and FDIC in issuing any final guidance after reviewing comments received.

Enforcement Actions

The Federal Reserve has enforcement authority over the financial institutions it supervises and their affiliated parties. Enforcement actions may be taken to address unsafe or unsound practices and violations of law or regulation. Formal enforcement actions include cease and desist orders, written agreements, prompt corrective action directives, removal and prohibition orders, civil money penalties, and letters sent pursuant to 12 U.S.C. § 1829, known as Section 19 letters.

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[7] See https://www.bundesbank.de/resource/blob/745304/67440393f3e0b53ea417c874eafe14e7/mL/2022-10-13-g7-fundamental-elements-ransomware-data.pdf and https://www.bundesbank.de/resource/blob/764692/01503c2cb8a58e44a862bee170d34545/mL/2018-10-24-g-7-fundamental-elements-for-third-party-cyber-risk-data.pdf.

[8] See https://www.fsb.org/2022/10/fsb-makes-proposals-to-achieve-greater-convergence-in-cyber-incident-reporting/.

[9] A crypto-asset generally refers to any digital asset implemented using cryptographic techniques.

[10] See https://www.federalreserve.gov/supervisionreg/srletters/SR2206.htm.

In 2022, the Federal Reserve completed 41 formal enforcement actions. Civil money penalties totaling $30,450,400 were assessed. As directed by statute, all civil money penalties are remitted to either the U.S. Treasury or the Federal Emergency Management Agency. The Reserve Banks completed 43 informal enforcement actions. Informal enforcement actions include memoranda of understanding, commitment letters, supervisory letters, and board of directors' resolutions.

Enforcement orders and prompt corrective action directives, which are issued by the Board, and written agreements, which are executed by the Reserve Banks, are made public and are posted on the Board's website (https://www.federalreserve.gov/apps/enforcementactions/search.aspx).

Other Laws and Regulation Enforcement Activity/Actions

The Federal Reserve's enforcement responsibilities also extend to the disclosure of financial information by state member banks and the use of credit to purchase and carry securities.

Financial Disclosures by State Member Banks

Under the Securities Exchange Act of 1934 and the Federal Reserve's Regulation H, certain state member banks are required to make financial disclosures to the Federal Reserve using the same reporting forms that are normally used by publicly held entities to submit information to the SEC.[11]

In 2022, one state member bank was required to submit data to the Federal Reserve. The information submitted by this one state member bank is available to the public upon request and is primarily used for disclosure to the bank's shareholders and public investors.

Internal Appeals of Material Supervisory Determinations

The Board is committed to maintaining an independent, intra-agency process to review appeals of material supervisory determinations (MSD) that complies with section 309 of the Riegle Community Development and Regulatory Improvement Act of 1994.[12] The appeals process includes two levels of review. A panel for Reserve Bank staff who are not employed by the Reserve Bank with supervisory responsibility of the financial institution that issued the appealed MSD conducts the initial review. This panel determines whether the appealed MSD is consistent with applicable laws, regulations, and policy, and is supported by a preponderance of the evidence in the record. If the appealing institution is dissatisfied with the initial review panel's decision, the institution may request a final review of the MSD. A panel of senior Board staff conducts the final review. The final review panel determines whether the decision of the initial review panel is reasonable. Additional

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[11] Under section 12(g) of the Securities Exchange Act, certain companies that have issued securities are subject to SEC registration and filing requirements that are similar to those that apply to public companies. Per section 12(i) of the Securities Exchange Act, the powers of the SEC over banking entities that fall under section 12(g) are vested with the appropriate banking regulator. Specifically, state member banks with 2,000 or more shareholders and more than $10 million in total assets are required to register with, and submit data to, the Federal Reserve. For more information on the Board's Regulation H policy action, see appendix E, "Record of Policy Actions."

[12] U.S.C. § 4806.

information is available regarding the Federal Reserve Board's appeals process (https://www.federalreserve.gov/supervisionreg/srletters/SR2028.htm) and Ombuds policy (https://www.federalreserve.gov/aboutthefed/ombpolicy.htm).

In 2022, the Board received one MSD appeal from a state member community banking organization that later withdrew the appeal, as the matter was resolved informally with assistance from the Ombuds Office.

Assessments for Supervision and Regulation

BHCs and SLHCs with total consolidated assets of $100 billion or more as well as any nonbank financial companies designated by the Financial Stability Oversight Council for supervision by the Board, are subject to assessments for the cost of the Board's supervision and regulation. As a collecting entity, the Board does not recognize the supervision and regulation assessments as revenue nor does the Board use the collections to fund Board expenses; the funds are transferred to the U.S. Treasury. The Board collected and transferred $686.2 million in 2022 for the 2021 supervision and regulation assessment.

Training and Technical Assistance

The Federal Reserve provides training and technical assistance to foreign supervisors and minority-owned depository institutions as well as engages in industry outreach in connection with supervisory objectives.

Current Expected Credit Losses Implementation

The Financial Accounting Standards Board issued an accounting standard in 2016 that overhauls the accounting for credit losses with a new impairment model based on the Current Expected Credit Losses (CECL) methodology. Approximately 200 banking organizations adopted the CECL methodology in 2020. Remaining banking organizations will adopt throughout 2023. CECL's implementation affects a broad range of supervisory activities, including regulatory reports, examinations, and examiner training.

In 2022, the Federal Reserve released a second tool to help community banks implement the CECL accounting standard. Known as the Expected Losses Estimator, or ELE, the spreadsheet-based tool utilizes a financial institution's loan-level data and management assumptions to aid community financial institutions in calculating their CECL allowances. The launch of the ELE tool builds on the Federal Reserve's previous release of the Scaled CECL Allowance for Losses Estimator, or SCALE, tool to also help community financial institutions implement the CECL accounting standard. Together, the ELE and SCALE tools provide two simplified approaches to CECL calculations for smaller community financial institutions.

International Training and Technical Assistance

In 2022, the Federal Reserve continued to provide training and technical assistance on supervisory matters to foreign central banks and supervisory authorities. Technical assistance normally involves visits by Federal Reserve staff members to foreign authorities as well as consultations with foreign supervisors who visit the Board of Governors or the Reserve Banks. Due to pandemic restrictions, the Federal Reserve offered its training programs only virtually during the first half of the year and resumed in-person training during the second half of the year for the benefit of foreign supervisory authorities. Approximately 1,900 bank supervisors from foreign central banks and supervisory agencies attended these virtual and in-person training events during 2022.

Federal Reserve staff also took part in organizing with the International Monetary Fund and the World Bank a total of two training events for senior supervisory officials, one a virtual conference and the other an in-person training seminar. Other training partners that collaborated with the Federal Reserve during 2022 to organize a total of 23 regional virtual and in-person training events included the Association of Bank Supervisors of the Americas, the National Banking and Securities Commission of Mexico, and Banco de Portugal.

Efforts to Support Minority-Owned Depository Institutions

The Federal Reserve System implements its responsibilities under section 367 of the Dodd-Frank Act primarily through its Partnership for Progress (PFP) program.[13] Established in 2008, this program promotes the viability of minority depository institutions (MDIs) by facilitating activities designed to strengthen their business strategies, maximize their resources, and increase their awareness and understanding of supervisory expectations. The Federal Reserve has also taken MDIs into consideration when developing crisis response facilities. For example, Federal Reserve staff reached out to MDIs to learn more about the impact of the COVID event on the communities they serve as well as to gather input on how crisis response facilities could be most helpful to these institutions and their customers.

In addition, the Federal Reserve continues to maintain the PFP website, which supports MDIs by providing them with technical information and links to useful resources (https://www.fedpartnership.gov). Representatives from each of the 12 Federal Reserve Districts, along with staff from the Divisions of Supervision & Regulation and Consumer & Community Affairs at the Board of Governors, continue to offer technical assistance tailored to MDIs by providing targeted supervisory guidance, identifying additional resources, and fostering mutually beneficial partnerships between MDIs and

[13] Section 367 of the Dodd-Frank Act requires the Board to submit an annual report to the Congress detailing the actions taken to fulfill the requirements outlined in section 308 of the Financial Institutions Reform, Recovery, and Enforcement Act (FIRREA) of 1989, as amended by the Dodd-Frank Act in 2010 (see appendix A). In addition to the annual reporting requirement, FIRREA section 308 requires the Federal Reserve System to devote efforts toward preserving and promoting minority ownership of MDIs.

community organizations. As of year-end 2022, the Federal Reserve's MDI portfolio consisted of 13 state member banks.

Throughout 2022, the System supported MDIs and conducted a number of outreach initiatives, webinars, and conferences specific to MDIs, including the following:

- *Interagency listening sessions*: In the fall of 2022, the Board, FDIC, and OCC jointly hosted an interagency listening sessions series titled, "Bridging the Gap: Assessing the Evolving Needs of Mission-Driven Banks." All MDIs and CDFI banks were invited to provide insights on current challenges and opportunities in their industry, and suggestions as to how the regulators can provide support.
- *Minorities in Banking Forum*: In September 2022, the Federal Reserve System sponsored the seventh annual Banking and the Economy: A Forum for Minorities in Banking at the Federal Reserve Bank of Atlanta and virtually. The forum gathered minority professionals in middle to senior management in the banking and financial services sectors nationwide.
- *Designation of a new state member MDI*: In December 2022, the Board and Federal Reserve Bank of Atlanta recognized a new MDI, Anchor Bank in Palm Beach Gardens, Florida. This increases the number of Federal Reserve-regulated MDIs to 14.
- *Conference speeches*: In the fall of 2022, two Federal Reserve governors attended MDI conferences and gave public remarks:
  - Governor Lisa Cook attended the National Bankers Association annual meeting in October 2022 in Washington, D.C.
  - Governor Michelle Bowman attended "The Future of Minority Depository Institutions: MDI Connectech Initiative" in November 2022 in Washington, D.C.
- *Research*: PFP staff coordinated with Reserve Bank staff to encourage new research on MDIs and the communities they serve.
- *Outreach*: Throughout 2022, PFP staff discussed formation of de novo banks with several different investor groups.
- *Emergency Capital Investment Program (ECIP)*: PFP staff coordinated with Reserve Bank staff to provide consultation to the U.S. Treasury on Federal Reserve-supervised ECIP applicants.

International Engagement

As a member of the FSB and several international financial standard-setting bodies, the Federal Reserve actively participates in efforts to share information and advance sound supervisory policies for internationally active financial organizations and to enhance the strength, stability, and resilience of the international financial system.

Financial Stability Board

In 2022, the Federal Reserve continued its participation in a variety of activities of the FSB, an organization whose mission is to promote international financial stability. The FSB helps coordinate the work of national financial authorities and international standard-setting bodies and shares information on supervisory and regulatory practices. Priority areas for the year included developing principles for regulating and supervising crypto-assets and stablecoins, enhancing the resilience of nonbank financial intermediation, aligning practices regarding cyber incident reporting, and monitoring the transition of financial benchmarks away from LIBOR. The full range of the Federal Reserve's FSB activities is discussed in section 3, "Financial Stability."

The FSB also produces a variety of publications, including progress reports, monitoring reports, guidance, consultative documents, and compendia of better practice. Examples issued in 2022 include

- *Assessment of Risks to Financial Stability from Crypto-Assets* (issued in February and available at https://www.fsb.org/2022/02/assessment-of-risks-to-financial-stability-from-crypto-assets/)
- *FSB Roadmap for Addressing Financial Risks from Climate Change: 2022 Progress Report* (issued in July and available at https://www.fsb.org/2022/07/fsb-roadmap-for-addressing-financial-risks-from-climate-change-2022-progress-report/)
- *Review of the FSB High-Level Recommendations of the Regulation, Supervision and Oversight of "Global Stablecoin" Arrangements: Consultative Report* (issued in October and available at https://www.fsb.org/2022/10/review-of-the-fsb-high-level-recommendations-of-the-regulation-supervision-and-oversight-of-global-stablecoin-arrangements-consultative-report/)
- *International Regulation of Crypto-Asset Activities: A Proposed Framework – Questions for Consultation* (issued in October and available at https://www.fsb.org/2022/10/international-regulation-of-crypto-asset-activities-a-proposed-framework-questions-for-consultation/)
- *Supervisory and Regulatory Approaches to Climate-Related Risks: Final Report* (issued in October and available at https://www.fsb.org/2022/10/supervisory-and-regulatory-approaches-to-climate-related-risks-final-report/)
- *Progress Report on Climate-Related Disclosures* (issued in October and available at https://www.fsb.org/2022/10/progress-report-on-climate-related-disclosures/)
- *Achieving Greater Convergence in Cyber Incident Reporting – Consultative Document* (issued in October and available at https://www.fsb.org/2022/10/achieving-greater-convergence-in-cyber-incident-reporting-consultative-document/)
- *Climate Scenario Analysis by Jurisdictions: Initial Findings and Lessons* (issued in November and available at https://www.fsb.org/2022/11/climate-scenario-analysis-by-jurisdictions-initial-findings-and-lessons/)

- *Progress Report on LIBOR and Other Benchmarks Transition Issues: Reaching the Finishing Line of LIBOR Transition and Securing Robust Reference Rates for the Future* (issued in December and available at https://www.fsb.org/2022/12/progress-report-on-libor-and-other-benchmarks-transition-issues-2022/)

A comprehensive list of FSB publications is available at https://www.fsb.org/publications.

Basel Committee on Banking Supervision

During 2022, the Federal Reserve contributed to Basel Committee on Banking Supervision (BCBS) supervisory policy recommendations, reports, papers, and consultations designed to improve the supervision of banking organizations' practices and to address specific issues that emerged during the 2007–09 financial crisis and, more recently, the COVID event.[14] In 2022, the BCBS was particularly focused on crypto-assets and crypto markets (this included issuing a final consultation on the prudential treatment of crypto-assets), an evaluation of the effectiveness of Basel III reforms, capital buffers, climate-related financial risks, credit risk, margining practices, COVID-19, and operational risk and resilience.

Examples of final BCBS documents issued in 2022 include

- *Newsletter on Covid-19 Related Credit Risk Issues* (issued in March and available at https://www.bis.org/publ/bcbs_nl26.htm)
- *Newsletter on Artificial Intelligence and Machine Learning* (issued in March and available at https://www.bis.org/publ/bcbs_nl27.htm)
- *Newsletter on Third- and Fourth-Party Risk Management and Concentration Risk* (issued in March and available at https://www.bis.org/publ/bcbs_nl28.htm)
- *Newsletter on Credit Risk: Real Estate and Leveraged Lending* (issued in August and available at https://www.bis.org/publ/bcbs_nl29.htm)
- *Review of Margining Practices* (issued in September and available at https://www.bis.org/bcbs/publ/d537.htm)
- *Basel III Monitoring Report* (issued in September and available at https://www.bis.org/bcbs/publ/d541.htm)
- *Buffer Usability and Cyclicality in the Basel Framework* (issued in October and available at https://www.bis.org/bcbs/publ/d542.htm)
- *Newsletter on Positive Cycle-Neutral Countercyclical Capital Buffer Rates* (issued in October and available at https://www.bis.org/publ/bcbs_nl30.htm)

[14] The BCBS provides a forum for regular cooperation on banking supervisory matters. Its 45 members comprise central banks and bank supervisors from 28 jurisdictions.

- *Newsletter on Bank Exposures to Non-Bank Financial Intermediaries* (issued in November and available at https://www.bis.org/publ/bcbs_nl31.htm)
- *Frequently Asked Questions on Climate-Related Financial Risks* (issued in December and available at https://www.bis.org/bcbs/publ/d543.htm)
- *Evaluation of the Impact and Efficacy of the Basel III Reforms* (issued in December and available at https://www.bis.org/bcbs/publ/d544.htm)

Examples of consultative BCBS documents issued in 2022 include

- *Principles for the Effective Management and Supervision of Climate-Related Financial Risks* (issued in June and available at https://www.bis.org/bcbs/publ/d532.htm)
- *High-Level Considerations on Proportionality* (issued in July and available at https://www.bis.org/bcbs/publ/d534.htm)
- *Prudential Treatment of Cryptoasset Exposures* (final consultation issued in December and available at https://www.bis.org/bcbs/publ/d545.htm)

A comprehensive list of BCBS publications is available at https://www.bis.org/bcbs/publications.htm.

Committee on Payments and Market Infrastructures

In 2022, the Federal Reserve continued its active participation in the activities of the Committee on Payment and Market Infrastructures (CPMI), a forum in which central banks promote the safety and efficiency of payment, clearing and settlement activities, and related arrangements.

The CPMI continued to coordinate with the FSB to advance the G-20 priority to enhance global cross-border payments. In particular, the CPMI published analytical papers, frameworks, and self-assessment tools for several building blocks as set out in the FSB roadmap.

In addition, in conducting its work on financial market infrastructure and market-related reforms, the CPMI often coordinated with the International Organization of Securities Commissions (IOSCO). Over the course of 2022, CPMI-IOSCO advanced work on financial resources for central counterparty (CCP) recovery and resolution, practices for addressing non-default losses at CCPs, margining practices, stablecoin arrangements, client clearing at central counterparties, and fast payments. In addition, CPMI-IOSCO continued to monitor implementation of the Principles for Financial Market Infrastructures, including expectations for cyber resilience.

Some examples of 2022 CPMI publications include

- *Central Counterparty Financial Resources for Recovery and Resolution* (published by CPMI-IOSCO and the FSB in March and available at https://www.bis.org/publ/othp46.pdf)
- *Improving Access to Payment Systems for Cross-Border Payments: Best Practices for Self-Assessments* (published by CPMI in May and available at https://www.bis.org/cpmi/publ/d202.pdf)
- *Extending and Aligning Payment System Operating Hours for Cross-Border Payments* (published by CPMI in May and available at https://www.bis.org/cpmi/publ/d203.pdf)
- *Interlinking Payment Systems and the Role of Application Programming Interfaces: A Framework for Cross-Border Payments* (published by CPMI in July and available at https://www.bis.org/cpmi/publ/d205.pdf)
- *Application of the Principles for Financial Market Infrastructures to Stablecoin Arrangements* (published by CPMI-IOSCO in July and available at https://www.bis.org/cpmi/publ/d206.pdf)
- *A Discussion Paper on Central Counterparty Practices to Address Non-Default Losses* (published by CPMI-IOSCO in August and available at https://www.bis.org/cpmi/publ/d208.pdf)
- *Review of Margining Practices* (published by CPMI-IOSCO and BCBS in September and available at https://www.bis.org/bcbs/publ/d537.pdf)
- *A Discussion Paper on Client Clearing: Access and Portability* (published by CPMI-IOSCO in September and available at https://www.bis.org/cpmi/publ/d200.pdf)
- *Implementation Monitoring of the PFMI: Level 3 Assessment on Financial Market Infrastructures' Cyber Resilience* (published by CPMI-IOSCO in November and available at https://www.bis.org/cpmi/publ/d212.pdf)

A comprehensive list of CPMI publications is available at https://www.bis.org/cpmi_publs/.

International Association of Insurance Supervisors

The Federal Reserve continued its participation in 2022 in the development of international supervisory standards for the insurance industry. The Federal Reserve participates actively in standard-setting at the International Association of Insurance Supervisors (IAIS) in consultation and collaboration with state insurance regulators, the National Association of Insurance Commissioners, and the Federal Insurance Office. The Federal Reserve's participation focuses on those aspects most relevant to financial stability and consolidated supervision.

In 2022, the IAIS made progress on several initiatives. The IAIS proposed criteria for assessing whether the Aggregation Method provides comparable outcomes to the ICS. The IAIS also completed its review of the implementation of the Holistic Framework. This led to the IAIS recommending to the FSB that it discontinue the designation of global systemically important insurers while retaining the option to reinstate these designations if deemed necessary.

Examples of IAIS documents issued in 2022 include

- *2022–2023 Roadmap* (issued in January and available at https://www.iaisweb.org/uploads/2022/03/2022-2023-Roadmap.pdf)
- *Public Consultation on Draft Criteria that Will Be Used to Assess Whether the Aggregation Method Provides Comparable Outcomes to the Insurance Capital Standard* (issued in June and available at https://www.iaisweb.org/2022/06/public-consultation-on-draft-criteria-that-will-be-used-to-assess-whether-the-aggregation-method-provides-comparable-outcomes-to-the-insurance-capital-standard/)
- *Register of Internationally Active Insurance Groups Based on Information Publicly Disclosed by Groupwide Supervisors* (issued in July and available at https://www.iaisweb.org/uploads/2022/08/Register-of-Internationally-Active-Insurance-Groups-IAIGs.pdf)
- *Issues Paper on Insurance Sector Operational Resilience, Draft for Public Consultation* (issued in October and available at https://www.iaisweb.org/uploads/2022/10/Issues-Paper-on-Insurance-Sector-Operational-Resilience.pdf)
- *Public Consultation on the Review of the Individual Insurer Monitoring (IIM) Assessment Methodology* (issued in December and available at https://www.iaisweb.org/uploads/2022/12/221209-Public-consultation-on-the-review-of-the-IIM-assessment-methodology.pdf)
- *Global Insurance Market Report (GIMAR), December 2022* (available at https://www.iaisweb.org/uploads/2022/12/GIMAR-2022.pdf)
- *Application Paper on the Supervision of Climate-Related Risks in the Insurance Sector* (issued in May and available at https://www.iaisweb.org/uploads/2022/01/210525-Application-Paper-on-the-Supervision-of-Climate-related-Risks-in-the-Insurance-Sector.pdf)

A comprehensive list of IAIS publications is available at https://www.iaisweb.org/publications.

Shared National Credit Program

The Shared National Credit (SNC) program is an interagency review and assessment of risk in the largest and most complex credits shared by multiple regulated financial institutions. The SNC program is governed by an interagency agreement among the Board, FDIC, and OCC. SNC reviews are completed in the first and third quarters of the calendar year. Large agent banks receive two reviews each year, while most other agent banks receive a single review each year.

More information on the 2021 Shared National Credit review is available at https://www.federalreserve.gov/newsevents/pressreleases/bcreg20220214a.htm.

Bank Secrecy Act and Anti-Money-Laundering Compliance

The Federal Reserve is responsible for examining institutions for compliance with the Bank Secrecy Act (BSA) and applicable anti-money-laundering (AML) laws and regulations and conducts such examinations in accordance with the FFIEC's *Bank Secrecy Act/Anti-Money-Laundering Examination Manual*.

The Federal Reserve is currently participating in an ongoing interagency effort to update this manual. Many of the revisions are designed to emphasize and enhance the risk-focused approach to BSA/AML supervision and to continue to provide transparency into the BSA/AML examination process.

The Anti-Money-Laundering Act of 2020 (the Act) amended the Bank Secrecy Act, resulting in the most significant revision of the United States' framework for anti-money laundering and countering the financing of terrorism (AML/CFT) since 2001. The purpose of the Act is to improve coordination and information sharing; modernize AML/CFT laws; encourage technological innovations and the adoption of new technology; reinforce the risk-based approach to compliance; and establish uniform beneficial ownership information reporting requirements with a secure, nonpublic database for beneficial ownership information. The Federal Reserve continues to work with the U.S. Treasury, federal banking, and other agencies to implement the relevant sections of that Act.

The Federal Reserve also participates in the U.S. Treasury-led BSA Advisory Group, which includes representatives of regulatory agencies, law enforcement, and the financial services industry.

International Coordination on Sanctions, Anti-Money-Laundering, and Counter-Terrorism Financing

The Federal Reserve participated in a number of international coordination initiatives related to sanctions, money laundering, and terrorism financing. The Federal Reserve continued to monitor and share information with relevant groups regarding the changing sanctions landscape and, in particular, the ongoing global sanctions resulting from Russia's invasion of Ukraine.

Additionally, the Federal Reserve has a long-standing role in the U.S. delegation to the intergovernmental Financial Action Task Force and its working groups, contributing a banking supervisory perspective to the formulation of international standards. The Federal Reserve also continued to participate in the work of the FSB that resulted in the publication of the July 2022 FSB report[15] exploring options regarding broader adoption of the Legal Entity Identifier in cross-border payments

[15] See https://www.fsb.org/2022/07/options-to-improve-adoption-of-the-lei-in-particular-for-use-in-cross-border-payments/.

and the October 2022 publication of the G–20 Roadmap for Enhancing Cross-border Payments Consolidated progress report for 2022.[16]

The Federal Reserve also continued to participate in committees and subcommittees through the Bank for International Settlements. Specifically, the Federal Reserve actively participated in the AML Experts Group under the BCBS that focuses on AML and CFT issues. In addition, the Federal Reserve participated in meetings and roundtables during the year to discuss BSA/AML issues with delegations from countries and regions, such as Mexico, Australia, Central America, Canada, Africa, and the United Kingdom. These dialogues are designed to promote information sharing and understanding of BSA/AML issues between U.S. and country-specific financial sectors.

Regulatory Reports

The Federal Reserve, along with the other member FFIEC agencies, requires banking organizations to periodically submit reports that provide information about their financial condition and structure.

Federal Reserve Regulatory Reports

The Federal Reserve requires that U.S. holding companies periodically submit reports that provide information about their financial condition and structure.[17] This information is essential to formulating and conducting financial institution regulation and supervision. It is also used to respond to information requests by Congress and the public about holding companies and their nonbank subsidiaries. Foreign banking organizations and other entities are also required to submit reports periodically to the Federal Reserve. For more information on the various reporting forms, see https://www.federalreserve.gov/apps/reportforms/.

Effective during 2022, the following regulatory reporting forms had substantive revisions:

- **Consolidated Financial Statements for Holding Companies (FR Y-9C)**—The Board revised the FR Y-9C to be consistent with changes to U.S. generally accepted accounting principles related to last-of-layer hedging. The revisions, which were effective as of the September 30, 2022, report date, are consistent with changes to the FFIEC Consolidated Reports of Condition and Income (Call Reports) (FFIEC 031, 041, and 051).[18] There were no changes to the FR Y-9LP, FR Y-9SP, FR Y-9ES, or FR Y-9CS.
- **Structure Reporting and Recordkeeping Requirements for Domestic and Foreign Banking Organizations (FR Y-6, FR Y-7, FR Y-10, and FR Y-10E)**—The Board revised the FR Y-6, FR Y-7,

[16] See https://www.fsb.org/2022/10/g20-roadmap-for-enhancing-cross-border-payments-consolidated-progress-report-for-2022/.

[17] Holding companies are defined as BHCs, intermediate holding companies (IHCs), SLHCs, and securities holding companies.

[18] 85 Fed. Reg. 74,784 (November 23, 2020), https://www.federalregister.gov/documents/2020/11/23/2020-25743/agency-information-collection-activities-submission-for-omb-review-comment-request and 87 Fed. Reg. 55,005 (September 8, 2022), https://www.federalregister.gov/documents/2022/09/08/2022-19324/agency-information-collection-activities-announcement-of-board-approval-under-delegated-authority.

and FR Y-10 to reduce reporting burden, standardize how certain data are reported, and update the terminology used in the reports. The most significant revisions included (1) adding "Yes/No" checkboxes on the FR Y-6 to capture whether the firm had changes to any reportable items from the prior year's submission; (2) adding an automated tool that will allow for the reconciliation of a respondent's organizational chart in a secure electronic system; (3) adding a standardized template for reporting securities holders and insiders on the FR Y-6; and (4) updating the definition of control in the glossary section of the FR Y-10. The revisions to the definition of control are effective March 31, 2023. The new standard template for securities holders and insiders on the FR Y-6 and for reporting the organizational chart and tiered structure information on the FR Y-6 and FR Y-7 will be effective December 31, 2024. All other revisions were effective December 31, 2022.[19]

- **Capital Assessments and Stress Testing Information Collection Reports (FR Y-14)**—The Board revised the FR Y-14 to better identify risks not currently captured in the supervisory stress test, facilitate data reconciliation, and mitigate ambiguity within the instructions. Additionally, revisions were made to clarify the instructions that were, in part, prompted by questions received from reporting institutions. For the FR Y-14Q, certain revisions were effective for the September 30, 2022, as-of date, while other revisions were effective for the June 30, 2023, as-of date. For the FR Y-14M, the revisions were effective for the September 30, 2022, as-of date, and for the FR Y-14A, the revisions were effective for the December 31, 2022, as-of date.[20]
- **Complex Institution Liquidity Monitoring Report (FR 2052a)**—The FR 2052a was revised to implement the net stable funding ratio rule and other enhancements in December 2021.[21] The changes were effective on May 1, 2022, for firms subject to Category I standards and on October 1, 2022, for firms subject to Category II-IV standards. The revisions to the collection were significant and marked a major advancement in the Board's capability to monitor and supervise the liquidity risk profiles of large firms.
- **Transfer Agent Registration and Amendment Form and Transfer Agent Deregistration (Form TA-1 and Form TA-W)**—The Board implemented the new Form TA-W to simplify the process for respondents to deregister as transfer agents and obviate the need to use the SEC deregistration form or submit a separate letter. Form TA-W became effective as of December 23, 2022.[22]

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[19] 87 Fed. Reg. 73,304 (November 29, 2022), https://www.federalregister.gov/documents/2022/11/29/2022-26035/agency-information-collection-activities-announcement-of-board-approval-under-delegated-authority.

[20] 87 Fed. Reg. 52,560 (August 26, 2022), https://www.federalregister.gov/documents/2022/08/26/2022-18462/change-in-bank-control-notices-acquisitions-of-shares-of-a-bank-or-bank-holding-company.

[21] 86 Fed. Reg. 68,254 (December 1, 2021), https://www.federalregister.gov/documents/2021/12/01/2021-26103/agency-information-collection-activities-announcement-of-board-approval-under-delegated-authority.

[22] 87 Fed. Reg. 71,639 (November 23, 2022), https://www.federalregister.gov/documents/2022/11/23/2022-25493/agency-information-collection-activities-announcement-of-board-approval-under-delegated-authority.

FFIEC Regulatory Reports

The Federal Reserve, along with the other FFIEC member agencies, requires financial institutions to submit various uniform regulatory reports.[23] This information is essential to formulating and conducting supervision and regulation and for the ongoing assessment of the overall soundness of the nation's financial system. For more information on FFIEC reporting forms, see https://www.ffiec.gov/ffiec_report_forms.htm.

During 2022, the FFIEC member agencies completed a statutorily mandated review of the FFIEC Call Reports and revised other reports that improve the monitoring of certain hedging activity and country exposures.

- **Consolidated Reports of Condition and Income (FFIEC 031, 041, 051)**—Every five years, section 604 of the Financial Services Regulatory Relief Act of 2006 requires the banking agencies to conduct a review of the information and schedules that are required to be filed by an insured depository institution in the Call Reports. Under the auspices of the FFIEC, the banking agencies completed the statutorily mandated review in 2022. The FFIEC Task Force on Reports (TFOR) conducted surveys of Call Report data users, representing diverse groups within the banking agencies, the CFPB, and state supervisory authorities. The data users identified the purposes for which they use each reported data item, the extent of usage for each item, and the frequency with which each item is needed. The TFOR evaluated the survey results and provided a report to the FFIEC principals in December 2022. Separately, the FFIEC member agencies revised the Call Reports[24] to conform with the Accounting Standards Update 2022-01, "Derivatives and Hedging (Topic 815): Fair Value Hedging—Portfolio Layer Method," (ASU 2022-01[25]), which was issued by Financial Accounting Standards Board in March 2022.
- **Report of Assets and Liabilities of U.S. Branches and Agencies of Foreign Banks (FFIEC 002)**—The FFIEC member agencies revised the FFIEC 002 to be consistent with changes made to the Call Reports for institutions that have adopted ASU 2022-01. These changes were effective as of June 30, 2022.[26]
- **Country Exposure Report (FFIEC 009) and Country Exposure Information Report (FFIEC 009a)**—The FFIEC member agencies revised the FFIEC 009 by clarifying that the redistribution of immediate-counterparty claims previously referred to as "Ultimate Risk Basis" should be renamed as "Guarantor Basis." As part of this revision, the agencies added two new columns to the newly renamed "Claims on a Guarantor Basis and Memorandum Items" section of Schedule C to provide the agencies with a more complete view of the origin of collateral and its

[23] The law establishing the FFIEC and defining its functions requires the FFIEC to develop uniform reporting systems for federally supervised financial institutions. See 12 U.S.C. § 3305.

[24] These revisions resulted from previously published accounting-related changes. See 87 Fed. Reg. 74,784 (November 23, 2020).

[25] See Financial Accounting Standards Board ASU 2022-01, https://fasb.org/page/PageContent?pageId=/standards/accounting-standards-updates-issued.html.

[26] 87 Fed. Reg. 74,784 (November 23, 2020).

Table 4.4. Training for supervision and regulation, 2022

Course sponsor or type	Number of enrollments		Instructional time (approximate training days)[1]	Number of course offerings
	Federal Reserve personnel	State and federal banking agency personnel		
Federal Reserve System	41	1	16	3
FFIEC	263	232	160	32
Rapid Response[2]	14,327	1,544	5	40

1 Training days are approximate. System courses were calculated using five days as an average, with FFIEC courses calculated using four days as an average.
2 Rapid Response is a virtual program created by the Federal Reserve System as a means of providing information on emerging topics to Federal Reserve and state bank examiners.

value as a risk mitigant. Additionally, the agencies revised the FFIEC 009a to consolidate the collection of more granular information for each foreign country where the exposure exceeds the lesser of 0.75 percent of total assets or 15 percent of total capital (the previous Part B threshold). The agencies also added six new columns to the FFIEC 009a to collect information on immediate-counterparty claims. These revisions were effective as of the December 31, 2022, report date.[27]

Staff Development Programs

The Federal Reserve's staff development program supports the ongoing development of nearly 4,000 professional supervisory staff, ensuring that they have the requisite skills necessary to meet their evolving supervisory responsibilities. The Federal Reserve also provides course offerings to staff at state banking agencies. Training activities in 2022 are summarized in table 4.4.

Examiner Commissioning Program

An overview of the Federal Reserve System's Examiner Commissioning Program for assistant examiners is set forth in SR letter 17-6/CA letter 17-1, "Overview of the Federal Reserve's Supervisory Education Programs."[28] Three examiner commissioning tracks are available: (1) community banking organization, (2) consumer compliance, and (3) large financial institutions (LFI). On average, individuals move through a combination of in-person training, self-paced learning, virtual instruction, and on-the-job training over a period of about three to four years. Achievement is measured by completing the required course content, demonstrating on-the-job knowledge, and passing a professionally validated proficiency examination.

In 2022, 81 examiners passed the proficiency examination (37 in CBO, 14 in consumer compliance, and 30 in LFI). To ensure minimal disruption to assistant examiners, virtual delivery of con-

27 87 Fed. Reg. 49,647 (August 11, 2022), https://www.federalregister.gov/documents/2022/08/11/2022-17229/proposed-agency-information-collection-activities-comment-request.
28 See https://www.federalreserve.gov/supervisionreg/srletters/sr1706.htm.

tent continued throughout 2022, with some in-person courses beginning again in the fourth quarter of 2022.

Continuing Professional Development

The Federal Reserve provides supervisory staff (and, in many cases, state examiners through existing partnerships with the Conference of State Banking Supervisors and FFIEC) with opportunities to maintain job knowledge after commissioning, learn about emerging concepts and practices, and expand knowledge into highly specialized supervisory topics. A number of learning and communication solutions are developed or curated, including Rapid Response webinars, podcasts, self-guided learning plans on specialty topics, and other content produced for just-in-time communication to supervisory staff about emerging issues and regulatory policy.

Regulatory Developments

The Federal Reserve carries out its regulatory responsibilities by developing regulatory policy (rulemakings, supervision and regulation letters, policy statements, and guidance) and reviewing and acting on a variety of applications filed by banking organizations.

Rulemakings and Guidance

The Federal Reserve issues new regulations or revises existing regulations in response to laws enacted by Congress or because of evolving conditions in the financial marketplace. Over 2022, the Federal Reserve, working with the other federal banking agencies, announced a variety of policy actions to promote the safety and soundness, transparency, and efficiency of the financial system. The Federal Reserve issued the following rules and statements in 2022 (see table 4.5).

Table 4.5. Federal Reserve or interagency rulemakings/statements/guidance (proposed and final), 2022

Date issued	Rulemaking/statement/guidance
1/10/2022	Federal Reserve Board finalizes technical rule that will streamline reporting requirements for member banks related to their subscriptions to Federal Reserve Bank capital stock. Press release: https://www.federalreserve.gov/newsevents/pressreleases/bcreg20220110a.htm
1/13/2022	SR-22-2, "Status of Covered Savings Associations and Holding Companies of Covered Savings Associations Under Statutes and Regulations Administered by the Federal Reserve." Release: https://www.federalreserve.gov/supervisionreg/srletters/SR2202.htm
1/21/2022	SR-22-3/CA-22-1, "Federal Financial Institutions Examination Council Issues Statement of Principles on Examination Information Requests." Release: https://www.federalreserve.gov/supervisionreg/srletters/SR2203.htm
1/28/2022	Federal Reserve Board invites public comment on proposed guidance to implement a framework for the supervision of certain insurance organizations overseen by the Board. Press release: https://www.federalreserve.gov/newsevents/pressreleases/bcreg20220128a.htm
2/10/2022	Federal Reserve Board releases hypothetical scenarios for its 2022 bank stress tests. Press release: https://www.federalreserve.gov/newsevents/pressreleases/bcreg20220210a.htm
3/1/2022	Federal Reserve Board invites public comment on supplement to its May 2021 proposal. Release: https://www.federalreserve.gov/newsevents/pressreleases/bcreg20220301a.htm

(continued)

Table 4.5—*continued*

Date issued	Rulemaking/statement/guidance
3/22/2022	Federal Reserve Board invites comment on interagency proposal to update policies and procedures governing administrative proceedings for supervised financial institutions. Joint press release: https://www.federalreserve.gov/newsevents/pressreleases/bcreg20220322a.htm
3/25/2022	Federal Reserve Board announces it will extend comment period for proposal to implement a framework for the supervision of certain insurance organizations overseen by the Board until May 5, 2022. Press release: https://www.federalreserve.gov/newsevents/pressreleases/bcreg20220325a.htm
3/29/2022	SR-22-4/CA-22-3, "Contact Information in Relation to Computer-Security Incident Notification Requirements." Release: https://www.federalreserve.gov/supervisionreg/srletters/SR2204.htm
5/5/2022	Agencies issue joint proposal to strengthen and modernize Community Reinvestment Act Regulations. Joint press release: https://www.federalreserve.gov/newsevents/pressreleases/bcreg20220505a.htm
5/11/2022	Agencies release revised questions and answers regarding flood insurance. Joint press release: https://www.federalreserve.gov/newsevents/pressreleases/bcreg20220511a.htm
6/6/2022	Federal Reserve Board announces that results from its annual bank stress tests will be released on Thursday, June 23, at 4:30 p.m. EDT. Press release: https://www.federalreserve.gov/newsevents/pressreleases/bcreg20220606a.htm
6/7/2022	Federal Reserve announces it will soon release second tool to help community financial institutions implement the Current Expected Credit Losses (CECL) accounting standard. Press release: https://www.federalreserve.gov/newsevents/pressreleases/bcreg20220607a.htm
6/23/2022	Federal Reserve Board releases results of annual bank stress test, which show that banks continue to have strong capital levels, allowing them to continue lending to households and businesses during a severe recession. Press release: https://www.federalreserve.gov/newsevents/pressreleases/bcreg20220623a.htm
6/28/2022	Agencies issue host state loan-to-deposit ratios. Joint press release: https://www.federalreserve.gov/newsevents/pressreleases/bcreg20220628a.htm
7/1/2022	Agencies release list of distressed or underserved nonmetropolitan middle-income geographies. Joint press release: https://www.federalreserve.gov/newsevents/pressreleases/bcreg20220701a.htm
7/1/2022	Federal Reserve and FDIC extend deadline for U.S. G-SIB resolution plan feedback. Joint press release: https://www.federalreserve.gov/newsevents/pressreleases/bcreg20220701b.htm
7/6/2022	SR-22-5, "Joint Statement on the Risk-Based Approach to Assessing Customer Relationships and Conducting Customer Due Diligence." Release: https://www.federalreserve.gov/supervisionreg/srletters/SR2205.htm
7/19/2022	Federal Reserve Board invites comment on proposal that provides default rules for certain contracts that use the LIBOR reference rate, which will be discontinued next year. Press release: https://www.federalreserve.gov/newsevents/pressreleases/bcreg20220719a.htm
8/4/2022	Federal Reserve Board announces the individual capital requirements for all large banks, effective on October 1. Press release: https://www.federalreserve.gov/newsevents/pressreleases/bcreg20220804a.htm
8/16/2022	Federal Reserve Board provides additional information for banking organizations engaging or seeking to engage in crypto-asset-related activities. Press release: https://www.federalreserve.gov/newsevents/pressreleases/bcreg20220816a.htm SR-22-6/CA-22-6, "Engagement in Crypto-Asset-Related Activities by Federal Reserve-Supervised Banking Organizations." Release: https://www.federalreserve.gov/supervisionreg/srletters/SR2206.htm
9/8/2022	SR-22-7/CA-22-7, "Policy Statement on Whistleblower Claims." Release: https://www.federalreserve.gov/supervisionreg/srletters/SR2207.htm
9/9/2022	Agencies reaffirm commitment to Basel III standards. Joint press release: https://www.federalreserve.gov/newsevents/pressreleases/bcreg20220909a.htm
9/23/2022	Federal Reserve Board invites comment on updates to operational risk-management requirements for certain systemically important financial market utilities (FMUs) supervised by the Board. Press release: https://www.federalreserve.gov/newsevents/pressreleases/bcreg20220923a.htm
9/27/2022	Federal Reserve Board invites comment on updates to its existing guidance on commercial real estate loan accommodations for borrowers. Press release: https://www.federalreserve.gov/newsevents/pressreleases/bcreg20220927a.htm
9/28/2022	Federal Reserve Board finalizes supervisory framework for insurance organizations that are overseen by the Board. Press release: https://www.federalreserve.gov/newsevents/pressreleases/bcreg20220928a.htm SR-22-8, "Framework for the Supervision of Insurance Organizations." Release: https://www.federalreserve.gov/supervisionreg/srletters/SR2208.htm

(continued)

Table 4.5—*continued*

Date issued	Rulemaking/statement/guidance
9/29/2022	Federal Reserve Board announces that six of the nation's largest banks will participate in a pilot climate scenario analysis exercise designed to enhance the ability of supervisors and firms to measure and manage climate-related financial risks. Press release: https://www.federalreserve.gov/newsevents/pressreleases/other20220929a.htm
9/29/2022	Federal and state financial regulatory agencies issue interagency statement on supervisory practices regarding financial institutions affected by Hurricanes Fiona and Ian. Joint press release: https://www.federalreserve.gov/newsevents/pressreleases/bcreg20220929a.htm
9/30/2022	Agencies announce forthcoming resolution plan guidance for large banks and deliver feedback on resolution plan of Truist Financial Corporation. Joint press release: https://www.federalreserve.gov/newsevents/pressreleases/bcreg20220930a.htm
10/3/2022	Federal Reserve Board finalizes updates to the Board's rule concerning debit card transactions. Press release: https://www.federalreserve.gov/newsevents/pressreleases/bcreg20221003a.htm
10/6/2022	SR-22-9/CA-22-8, "FedEZFile™ and FedEZFile Fluent™ to be Released for Filing Applications with the Federal Reserve." Release: https://www.federalreserve.gov/supervisionreg/srletters/sr2209.htm
10/13/2022	Agencies announce dollar thresholds in Regulation Z and Regulation M for exempt consumer credit and lease transactions. Joint press release: https://www.federalreserve.gov/newsevents/pressreleases/bcreg20221013b.htm
10/13/2022	Agencies announce threshold for smaller loan exemption from appraisal requirements for higher-priced mortgage loans. Joint press release: https://www.federalreserve.gov/newsevents/pressreleases/bcreg20221013a.htm
10/14/2022	Federal Reserve Board invites public comment on an advance notice of proposed rulemaking to enhance regulators' ability to resolve large banks in an orderly way should they fail. Press release: https://www.federalreserve.gov/newsevents/pressreleases/bcreg20221014a.htm
11/23/2022	Agencies announce results of resolution plan review for largest and most complex domestic banks. Joint press release: https://www.federalreserve.gov/newsevents/pressreleases/bcreg20221123a.htm
12/2/2022	Federal Reserve Board invites public comment on proposed principles providing a high-level framework for the safe and sound management of exposures to climate-related financial risks for large banking organizations. Press release: https://www.federalreserve.gov/newsevents/pressreleases/other20221202b.htm
12/15/2022	Agencies extend comment period on advance notice of proposed rulemaking on large bank resolvability. Joint press release: https://www.federalreserve.gov/newsevents/pressreleases/bcreg20221215a.htm
12/16/2022	Federal Reserve Board adopts final rule that implements Adjustable Interest Rate (LIBOR) Act by identifying benchmark rates based on SOFR (Secured Overnight Financing Rate) that will replace LIBOR in certain financial contracts after June 30, 2023. Press release: https://www.federalreserve.gov/newsevents/pressreleases/bcreg20221216a.htm
12/16/2022	Agencies announce results of resolution plan review for certain domestic and foreign banks. Joint press release: https://www.federalreserve.gov/newsevents/pressreleases/bcreg20221216b.htm
12/19/2022	Agencies release annual asset-size thresholds under Community Reinvestment Act regulations. Joint press release: https://www.federalreserve.gov/newsevents/pressreleases/bcreg20221219a.htm
12/21/2022	Federal Reserve Board issues technical updates to its policy governing the provision of intraday credit in accounts at Federal Reserve Banks. Press release: https://www.federalreserve.gov/newsevents/pressreleases/bcreg20221221a.htm
12/22/2022	SR-22-11, "Status of Certain Investment Funds and their Portfolio Investments for Purposes of Regulation O and Reporting Requirements under Part 363 of FDIC Regulations." Release: https://www.federalreserve.gov/supervisionreg/srletters/sr2211.htm

Banking Applications

The Federal Reserve reviews applications submitted by BHCs, state member banks, SLHCs, foreign banking organizations, and other entities for approval to undertake various transactions and to engage in new activities. In 2022, the Federal Reserve acted on 938 applications filed under the six relevant statutes.

The Federal Reserve publishes the *Semiannual Report on Banking Applications Activity*, which provides aggregate information on proposals filed by banking organizations and reviewed by the Federal Reserve. The current report as well as historical reports are available at https://www.federalreserve.gov/publications/semiannual-report-on-banking-applications-activity.htm.

Public Notice of Federal Reserve Decisions and Filings Received

The Board's website provides information on orders and announcements (https://www.federalreserve.gov/newsevents/pressreleases.htm) as well as a guide for U.S. and foreign banking organizations that wish to submit applications (https://www.federalreserve.gov/bankinforeg/afi/afi.htm).

5 | Payment System and Reserve Bank Oversight

The Federal Reserve performs key functions to maintain the integrity of the U.S. payment and settlement system. These functions help keep cash, check, and electronic transactions moving reliably through the U.S. economy on behalf of households and businesses and the U.S. Treasury.

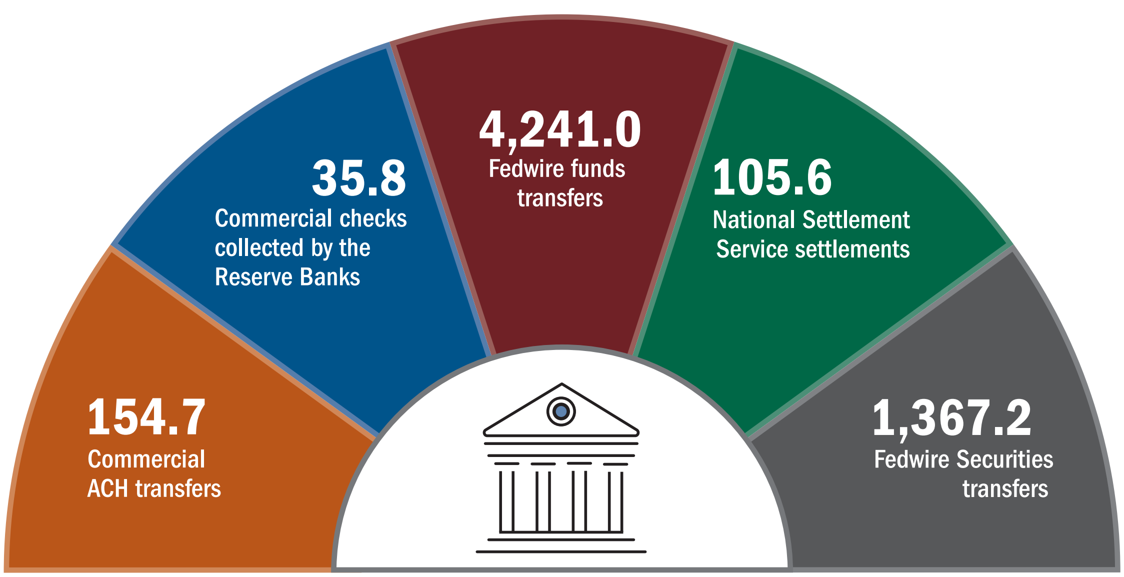
This section discusses the key payment system and Reserve Bank oversight activities undertaken by the Federal Reserve during 2022:

- providing payment services to depository and certain other institutions (see figure 5.1)
- distributing the nation's currency and coin to depository institutions
- serving as fiscal agents and depositories for the U.S. government and other entities
- serving as a catalyst for payment system improvements
- conducting Reserve Bank oversight to ensure effective internal controls, operations, and management

Figure 5.1. Average daily value of Federal Reserve payment services to depository and other institutions

Billions of dollars

The Federal Reserve provides "priced services" to depository and other institutions (see "Payments Services to Depository and Other Institutions"). These payment and related services are operated as separate business lines and costs are tracked accordingly (see box 5.1).



Payment Services to Depository and Other Institutions

Reserve Banks provide a range of payment and related services to depository and certain other institutions; these "priced services" include collecting checks, operating an automated clearinghouse (ACH) service, transferring funds and securities, and providing a multilateral settlement service (see box 5.1).[1]

The Reserve Banks operated payment services as separate business lines, led by a specific Reserve Bank, and tracked cost recovery accordingly, until 2021. In response to the changing financial services landscape and the planned launch of the FedNow® Service in July 2023, the Reserve Banks commenced a restructuring of payment services under one enterprise in 2021, led by a chief payments executive. Federal Reserve Financial Services is now an integrated organization within the Federal Reserve that is responsible for managing critical payment and securities services that foster the accessibility, integrity, and efficiency of the U.S. economy. This new governance and operating model will continue to enhance the agility and resiliency of Reserve Bank payment services and provide streamlined support for depository institution customers across all financial service offerings.

Commercial Check-Collection Service

The commercial check-collection service provides a suite of electronic and paper processing options for forward and return collections.

In 2022, the Reserve Banks recovered 99.8 percent of the total costs of their commercial check-collection service, including the related private-sector adjustment factor (PSAF). The Reserve Banks' operating expenses and imputed costs totaled $109.7 million. Revenue from operations totaled $110.5 million, resulting in a net income of $0.8 million. Reserve Banks handled 3.4 billion checks in 2022, a decrease of 7.8 percent from 2021 (see table 5.1). The average daily value of checks collected by the Reserve Banks in 2022 was approximately $35.8 billion, an increase of 2.2 percent from the previous year. The Reserve Banks expect volumes to continue to decline because of substitution away from checks to other payment instruments although uncertainty remains as to the rate of decline.

[1] *Depository institutions* are defined as commercial banks, thrifts, and credit unions. Besides playing an important role in the broader economy by providing transaction accounts, such as checking accounts, to consumers, households, and businesses, these institutions play an important role in the Federal Reserve System's payment and settlement system function.

Commercial Automated Clearinghouse Service

The commercial ACH service provides domestic and cross-border batched payment options for same-day and next-day settlement, enabling depository institutions and their customers to process large volumes of payments through electronic batch processes.

In 2022, the Reserve Banks recovered 101.7 percent of the total costs of their commercial ACH services, including the related PSAF. The Reserve Banks' operating expenses and imputed costs totaled $169.5 million. Revenue from operations totaled $174.0 million, resulting in a net income of $4.5 million. The Reserve Banks processed 18.5 billion commercial ACH transactions in 2022, an increase of nearly 3.5 percent from 2021 (see table 5.1). The average daily value of FedACH transfers in 2022 was approximately $154.7 billion, an increase of 4.6 percent from the previous year.

FedNow Service

The FedNow® Service, which will be available in July 2023, is a new service that will enable banks across the United States to provide instant payments to their customers at any hour of the day, every day of the year. The FedNow Service will provide a flexible infrastructure for banks and their service providers to develop instant payments products for their customers. In 2022, the Reserve Banks reached several significant milestones in collaboration with a diverse group of financial institution partners. Progress included onboarding of pilot participants and initiation of testing processes; publication of amendments to Regulation J, along with FedNow Service Operating Circular 8, to provide a comprehensive rule framework for funds transfers over the service; and finalization of 2023 pricing. These efforts are in support of the introduction of the FedNow Service to the market, which represents a significant first step toward achieving nationwide access to instant payments.

Fedwire Funds and National Settlement Services

In 2022, the Reserve Banks recovered 95.3 percent of their costs of the Fedwire Funds and National Settlement Service, including the related PSAF. The Reserve Banks' operating expenses and imputed costs totaled $160.7 million in 2022. Revenue from operations totaled $157.2 million, resulting in a net loss of $3.5 million.

Fedwire Funds Service

The Fedwire Funds Service allows depository institutions and their customers to send or receive domestic time-critical payments using their balances at Reserve Banks to transfer funds in real time.

Box 5.1. Priced Services and Cost Recovery

The Federal Reserve must (under the Monetary Control Act of 1980) establish fees for "priced services" to recover, over the long run, all the direct and indirect costs associated with its payment and settlement system service. Costs include those actually incurred as well as the imputed costs that would have been incurred—including financing costs, taxes, and certain other expenses—and the return on equity (profit) that would have been earned if a private business firm had provided the services.[1] The imputed costs and imputed profit are collectively referred to as the private-sector adjustment factor (PSAF).

From 2013 through 2022, the Reserve Banks recovered 102.5 percent of the total priced services costs, including the PSAF (see table A). In 2022, Reserve Banks recovered 99.3 percent of the total priced services costs, including the PSAF (see table A). The Reserve Banks' operating expenses and imputed costs totaled $462.8 million. Revenue from operations totaled $466.7 million, resulting in a net income from priced services of $7.2 million. The FedACH Service and the Fedwire® Securities Service achieved full cost recovery. The Fedwire Services and National Settlement Services did not achieve full cost recovery because of ongoing technology investments and higher operating costs. The check services did not achieve full cost recovery as volumes continue to decline.

Table A. Priced services cost recovery, 2013–22
Millions of dollars, except as noted

Year	Revenue from services[1]	Operating expenses and imputed costs[2]	Targeted return on equity	Total costs	Cost recovery (percent)[3]
2013	441.3	409.3	4.2	413.5	106.7
2014	433.1	418.7	5.5	424.1	102.1
2015	429.1	397.8	5.6	403.4	106.4
2016	434.1	410.5	4.1	414.7	104.7
2017	441.6	419.4	4.6	424.0	104.1
2018	442.5	428.1	5.2	433.3	102.1
2019	444.0	441.2	5.4	446.5	99.4
2020	446.9	434.0	5.9	439.9	101.6
2021	456.0	452.8	4.4	457.2	99.7
2022	466.7	462.8	7.2	470.0	99.3
2013–22	4,435.7	4,274.6	52.1	4,326.7	102.5

Note: Here and elsewhere in this section, components may not sum to totals or yield percentages shown because of rounding. Excludes amounts related to development of the FedNow Service.

1 For the 10-year period, includes revenue from services of $4,434.1 million and other income and expense (net) of $1.6 million.

2 For the 10-year period, includes operating expenses of $4,176.9 million, imputed costs of $36.5 million, and imputed income taxes of $61.2 million.

3 Revenue from services divided by total costs. For the 10-year period, cost recovery is 103.8 percent, including the effect of accumulated other comprehensive income (AOCI) reported by the priced services under ASC 715. For details on changes to the estimation of priced services AOCI and their effect on the pro forma financial statements, refer to note 3 to the "Pro Forma Financial Statements for Federal Reserve Priced Services" at the end of this section.

1 According to the Accounting Standards Codification (ASC) Topic 715 (ASC 715), Compensation-Retirement Benefits, the Reserve Banks recognized a $590.0 million reduction in equity related to the priced services' benefit plans through 2022. Including this reduction in equity, which represents a decline in economic value, results in cost recovery of 103.8 percent for the 10-year period. For details on how implementing ASC 715 affected the pro forma financial statements, refer to note 3 to the pro forma financial statements at the end of this section.

Table 5.1. Activity in Federal Reserve priced services, 2020–22
Thousands of items, except as noted

Service	2022	2021	2020	Percent change	
				2021–22	2020–21
Commercial check	3,373,580	3,657,312	3,766,523	−8	−3
Commercial ACH	18,517,858	17,895,155	16,548,795	3	8
Fedwire funds transfer	196,052	204,491	184,010	−4	11
National settlement	586	586	551	0	6
Fedwire securities	3,410	4,200	4,600	−19	−9

Note: Activity in commercial check is the total number of commercial checks collected, including processed and fine-sort items; in commercial ACH, the total number of commercial items processed; in Fedwire funds transfer and securities transfer, the number of transactions originated online and offline; and in national settlement, the number of settlement entries processed.

From 2021 to 2022, the number of Fedwire funds transfers originated by depository institutions decreased 4.1 percent, to approximately 196 million (see table 5.1). The average daily value of Fedwire funds transfers in 2022 was $4.2 trillion, an increase of 7.8 percent from the previous year.

National Settlement Service

The National Settlement Service (NSS) is a multilateral settlement system that allows participants in private-sector clearing arrangements to settle transactions using their balances at Reserve Banks.

In 2022, the service processed settlement files for 12 local and national private-sector arrangements. The Reserve Banks processed 8,763 files that contained about 586,000 settlement entries (see table 5.1). Settlement file activity in 2022 increased 1.0 percent from 2021, and settlement entries did not change. The total value of settlement processed by NSS increased 5.5 percent, to $26.4 trillion.

Fedwire Securities Service

The Fedwire Securities Service is a central securities depository and real-time securities settlement system that allows its participants to transfer electronically to other service participants certain securities issued by the U.S. Department of the Treasury, federal government agencies, government-sponsored enterprises, and certain international organizations.[2] It also provides for the issuance, safekeeping, and maintenance of those securities.

[2] The expenses, revenues, volumes, and fees reported here are for priced-services for securities issued by federal government agencies, government-sponsored enterprises, and certain international organizations. Reserve Banks provide Treasury securities services in their role as the Treasury's fiscal agent. These services are not considered priced services. For details, see "Financing and Securities Services" later in this section.

In 2022, the Reserve Banks recovered 107.7 percent of the costs of their Fedwire Securities Service, including the related PSAF. The Reserve Banks' operating expenses and imputed costs totaled $22.9 million in 2022. Revenue from operations totaled $24.9 million, resulting in a net income of $2.0 million. In 2022, the number of non-Treasury securities transfers processed via the service decreased approximately 19.4 percent from 2021, to approximately 3.4 million (see table 5.1). The average daily value of Fedwire Securities priced-service transfers in 2022 was approximately $71.8 billion, a decrease of 0.8 percent from the previous year.[3] The average daily value of all Fedwire Securities transfers in 2022 was more than $1.37 trillion, an increase of approximately 10.8 percent from the previous year.

The Reserve Banks, as fiscal agents for the U.S. Treasury, perform the transfer and settlement of Treasury securities. In 2022, the number of all Treasury security transfers was approximately 19.6 million, an increase of 22.2 percent from 2021.

The Reserve Banks, as fiscal agents for Fedwire Securities issuers, facilitate the principal and interest payments to the Fedwire Securities Service participants holding securities. In 2022, the total cash value of principal and interest payments was $25.51 trillion (a decrease of 13.0 percent from 2021).

The Fedwire Securities Service is the central securities depository for securities issued over the Fedwire Securities Service. At the end of 2022, there was approximately $106 trillion (par value) of Fedwire securities held in securities accounts maintained by the Reserve Banks as part of the service, a 3.6 percent increase from 2021. At the end of 2022, there were 1.45 million unique securities outstanding on the service, an increase of 2.9 percent from 2021.

FedLine Solutions: Access to Reserve Bank Services

The Reserve Banks' FedLine Solutions provide depository institutions with a variety of connections for accessing the Reserve Banks' payment and information services.

For priced services, the Reserve Banks charge fees for these connections and allocate the associated costs and revenue to the various services. There are currently six FedLine Solutions through which customers can access the Reserve Banks' priced services: FedMail, FedLine Exchange, FedLine Web, FedLine Advantage, FedLine Command, and FedLine Direct. These FedLine Solutions are designed to meet the individual connectivity, security, and contingency requirements of depository institution customers.

The Reserve Banks continue to focus on increased resiliency and availability of the FedLine Solutions, and to enhance the customer experience through access to value-added services not avail-

[3] These values do not include reversals.

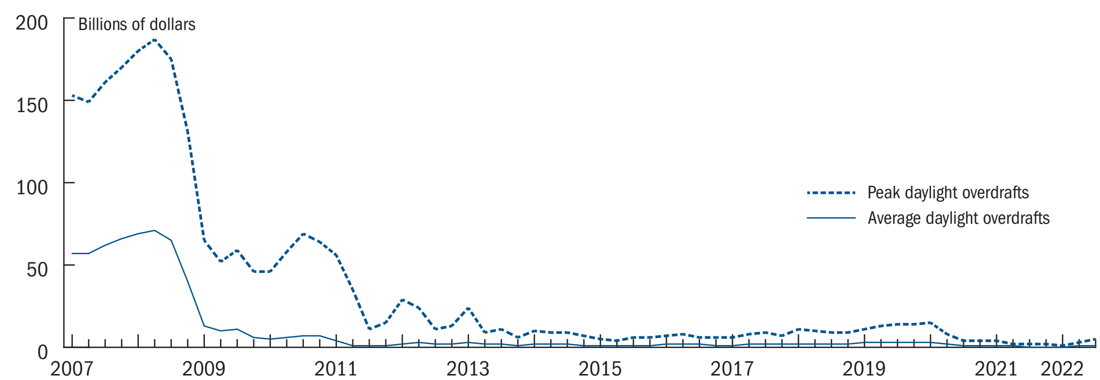
able on legacy technology. In 2022, the Reserve Banks advanced the safety and security of FedLine Solutions by making progress on key infrastructure upgrades and network modernization, as well as through proactive monitoring of an evolving threat environment.

Federal Reserve Intraday Credit

The Federal Reserve Board governs the use of Federal Reserve Bank intraday credit, also known as daylight overdrafts.[4] A daylight overdraft occurs when an institution's account activity creates a negative balance in the institution's Federal Reserve account at any time in the operating day. Daylight overdrafts enable an institution to send payments more freely throughout the day than if it were limited strictly by its available intraday funds balance, increasing efficiency and reducing payment system risk.

Given the high level of overnight balances institutions hold at the Federal Reserve Banks, daylight overdrafts have remained relatively low, as shown in figure 5.2.[5]

Figure 5.2. Aggregate daylight overdrafts 2007–22



Source: Payment Data Repository data, Federal Reserve quarterly payment system risk data.

Fees collected for daylight overdrafts are also at low levels. Fees as well as the use of intraday credit are expected to remain relatively low given the high levels of overnight balances under the ample reserves regime. Additionally, a 2011 policy revision that eliminated fees for collateralized daylight overdrafts has further contributed to the decrease in fees.

[4] See the Payment System Risk policy: https://www.federalreserve.gov/paymentsystems/psr_about.htm. The Payment System Risk policy recognizes explicitly the role of the central bank in providing intraday balances and credit to healthy institutions; under the policy, the Reserve Banks provide collateralized intraday credit at no cost.

[5] Increases in the overnight balances institutions held at the Reserve Banks have decreased the demand for intraday credit. Use of intraday credit is expected to remain low given the FOMC's decision to continue to implement monetary policy within a regime of ample reserves.

Box 5.2. U.S. Currency Program to Produce New Currency Designs

As the issuing authority for Federal Reserve notes, the Federal Reserve Board works closely with the Bureau of Engraving and Printing (BEP) to ensure that the production of U.S. currency remains secure and that the notes produced are high quality and in a quantity sufficient to meet public demand, supporting the Board's mission to provide a variety of safe and secure payment methods for the public.[1] Currently, Federal Reserve notes are produced by the BEP in two locations, Washington, D.C., and Fort Worth, Texas.

The current Washington, D.C., production facility was built in 1913 and needs to be replaced with a modern facility that will allow the BEP to streamline production, keep building support costs low, and meet physical security standards. The BEP initiated a project to build a new production facility in the Washington, D.C., region to meet modern production requirements critical to the future of the U.S. Currency Program. A Department of Agriculture site in Beltsville, Maryland, was suitable, and a provision in the 2018 Farm Bill transferred the land from the Department of Agriculture to the Department of the Treasury.[2]

The Board's role in the project is to ensure that the Board's reimbursements are appropriately allocated to build a facility capable of efficiently producing both current and future designs of secure U.S. currency. Board staff participate in multiple cross-agency governance bodies that oversee the project. Over the past year, the Board and the BEP established governance procedures and developed a shared vision for the management of this project.

The new facility will be equipped with modern equipment to produce the current designs of banknotes and new types of equipment to add security features for the next family of banknotes. It is expected to produce 3.5 billion notes per year under normal production conditions. The project is currently in the design phase, and a final design is scheduled to be completed by the end of 2023, after which cost estimates will be refined. The BEP expects to award the construction contract in 2024, start currency production in 2027, and complete the project in 2031, when all production and support functions are fully transitioned to the new facility.

1 Currency issuance is a mission essential function of the Board, and U.S. currency is the dominant reserve currency in the world. The Federal Reserve Act requires the Board to reimburse the BEP for the expenses necessarily incurred by producing U.S. currency.

2 Agriculture Improvement Act of 2018, Pub. L. No. 115-334, 132 Stat. 4490 (2018).

Currency and Coin

The Federal Reserve Board issues the nation's currency (in the form of Federal Reserve notes) to 28 Federal Reserve Bank offices. The Reserve Banks, in turn, distribute Federal Reserve notes to depository institutions in response to public demand. Together, the Board and Reserve Banks work to maintain the integrity of and confidence in Federal Reserve notes.

In 2022, Board staff continued to work with the Bureau of Engraving and Printing and the U.S. Army Corps of Engineers to build a new currency production facility in the Washington, D.C., area. The new production facility will replace the aging buildings in Washington and better position the U.S. Currency Program to produce new currency designs that are more technically complex (see box 5.2).

The Reserve Banks distributed 31.2 billion Federal Reserve notes into circulation in 2022, a 4.8 percent decrease from 2021, and received 30.3 billion Federal Reserve notes from circulation, a 1.4 percent increase from 2021. The decrease in payments and increase in receipts resulted in a net decrease in payments of 1.9 billion notes, or a 69.7 percent from 2021. This decrease was primarily attributable to lower net payments of $20 and $100 notes and resulted in the lowest level of net payments since 2009. The value of Federal Reserve notes issued and outstanding at year-end 2022 totaled $2,259.3 billion, a 3.3 percent increase from 2021. The year-over-year increase is primarily attributable to demand for $100 notes.

The Reserve Banks also distribute coin to depository institutions on behalf of the U.S. Mint.[6] In 2022, Reserve Banks distributed 43.0 billion coins into circulation, a 7.0 percent decrease from 2021, and received 31.9 billion coins from circulation, a 5.1 percent decrease from 2021.

Banknote Development

During 2022, Federal Reserve Board staff continued to support efforts related to the development of the next family of U.S. currency. For example, the Advanced Counterfeit Deterrence Steering Committee, composed of the Treasury, the U.S. Secret Service, and Federal Reserve System staff, provided advice on currency design changes to the Secretary of the Treasury, who has sole statutory authority to approve the final currency design.

Over the past year, Federal Reserve Board staff, alongside other U.S. Currency Program partners (the Bureau of Engraving and Printing, Federal Reserve Financial Services, and the U.S. Secret Service), collaborated on banknote and technology development. Banknote development focuses on meeting requirements based on user needs, security needs, and manufacturing capabilities. Technology development focuses on security features that can further bolster the counterfeit resistance of U.S. currency. To support these efforts, and like many other central banks, the Federal Reserve Board led an adversarial analysis program to increase the counterfeit resilience of U.S. currency and research counterfeit deterrence technologies. These activities work in concert to meet the goal of developing the next family of banknotes with new, robust security features effectively integrated into the design, which is easy to authenticate and difficult for counterfeiters to simulate.

In addition to participating on the Advanced Counterfeit Deterrence Steering Committee in 2022, Federal Reserve Board staff continued to serve on the Central Bank Counterfeit Deterrence Group and the Five Nations and chaired the United States Cash Machine Group. The Central Bank Counterfeit Deterrence Group is a group of central banks that collaborates to develop and deploy measures to combat digital counterfeiting. The Five Nations is a group of central banks, including the

[6] The Federal Reserve Board is the issuing authority for Federal Reserve notes, while the U.S. Mint, a bureau of the U.S. Treasury, is the issuing authority for coin.

Board, that works on common projects and uses experience in banknote development to discuss issues related to security, functionality, and manufacturability of banknotes. The United States Cash Machine Group works closely with manufacturers of cash authentication machines to ensure that new and existing banknotes function in commerce. The Board collaborates with these domestic and international partners to maintain worldwide confidence in U.S. currency.

Currency Education

The Federal Reserve Board's U.S. Currency Education Program (CEP) is responsible for building confidence in U.S. currency by providing education, training, and information about Federal Reserve notes to the global public. The CEP works closely with the U.S. Secret Service, the U.S. Department of State, and the U.S. Department of the Treasury's Bureau of Engraving and Printing to raise awareness about the designs and security features of Federal Reserve notes.

In 2022, the CEP launched the iOS version of Cash Assist, an app designed to support authentication training efforts for professional cash handlers across industries. The app uses the camera on a user's phone to identify a bill's denomination and display the key security features found on genuine Federal Reserve notes.

The CEP also hosted multiple virtual counterfeit trainings to instruct stakeholders on currency authentication and counterfeit detection best practices. Domestically, the CEP hosted counterfeit trainings for law enforcement officers, Federal Reserve Bank cash offices, and retail loss prevention personnel. Internationally, the CEP hosted trainings for cash operations staff and managers from the central banks of Cambodia, El Salvador, Panama, and Jamaica.

The CEP regularly informed the public about U.S. currency through outreach on Facebook and Twitter. In early 2022, the CEP launched a LinkedIn page to further its online visibility and introduce additional stakeholders to U.S. currency resources.

Fiscal Agency and Government Depository Services

The Federal Reserve Banks, upon the direction of the Secretary of the Treasury, act as fiscal agents of the U.S. government.[7] The Reserve Banks, in their role as fiscal agents, provide services such as payment services, debt financing and securities services, and financial accounting and reporting services, as well as maintain the Treasury's operating cash account.

[7] In accordance with section 15 of the Federal Reserve Act. See https://www.federalreserve.gov/aboutthefed/section15.htm.

To support further the Treasury's mission, the Reserve Banks develop, operate, and maintain a number of automated systems and provide associated technology infrastructure services. The Reserve Banks also provide certain fiscal agency and depository services to other entities.

Reserve Bank expenses for providing fiscal agency and depository services totaled $820.9 million, an increase of $52.4 million, or 6.8 percent (see table 5.2), which is primarily attributable to increased demand from the Treasury. The Treasury and other entities reimburse the Reserve Banks for the expense of providing fiscal agency and depository services. Costs for Treasury-related programs accounted for 98.0 percent of expenses, and costs for other entities accounted for the remaining 2.0 percent.

Table 5.2. Expenses of the Federal Reserve Banks for fiscal agency and depository services, 2020–22
Thousands of dollars

Agency and service	2022	2021	2020
Department of the Treasury			
Payment services	375,606	353,030	293,994
Financing and Treasury securities services	207,805	184,535	179,314
Financial accounting and reporting services	73,481	76,970	69,315
Technology infrastructure services	147,856	129,339	150,461
Total, Treasury	804,748	743,874	693,084
Other entities	16,130	24,595	39,321
Total reimbursable expenses	**820,878**	**768,469**	**732,406**

Note: Service costs include reimbursable pension costs, where applicable. Previous versions of the *Annual Report* provided a separate line item for pension expenses.

Payment Services

The Reserve Banks support the Treasury's payment services by developing, operating, and maintaining electronic systems that allow the public to receive payments from and authorize payments to federal agencies, and allow the government to prevent and detect improper payments and collect past-due debts. The Reserve Banks also provide operational and customer support, agency outreach efforts, and data analytics. The Reserve Banks process payments, such as federal payroll, Social Security benefits, and veterans' benefits, from the Treasury's account at the Federal Reserve and process payments made to the Treasury's account at the Federal Reserve, which include collections such as fees owed to the federal government.

Reserve Bank expenses for providing Treasury payment services were $375.6 million in 2022, an increase of $22.6 million, or 6.4 percent. This is primarily attributable to the Reserve Banks' continued support for Treasury's multiyear initiative to modernize the application that supports electronic tax collection although, in September 2022, Fiscal Service notified the Federal Reserve of its decision to discontinue the electronic tax collection program. The other programs that contributed most to Reserve Bank expenses in 2022 were the Stored Value Card program, the Pay.gov program, and the Do Not Pay program.

The Reserve Banks work with the Treasury to support the Stored Value Card program, which comprises three military cash-management services: EagleCash, EZpay, and Navy Cash. These programs provide electronic payment methods for goods and services on military bases and Navy ships. Stored-value cards are in use on more than 90 military bases and installations in 20 countries (including the United States) and on board more than 135 ships.

The Reserve Banks also work with the Treasury to expand the use of electronic payment services for payments made to the Treasury's account at the Federal Reserve. The Reserve Banks operate and maintain Pay.gov, an application that allows the public to use the internet to initiate and authorize payments to the federal government using a U.S.-held bank account (through ACH debit), a credit or debit card, or a digital wallet through services such as PayPal or Amazon Pay. In 2022, Pay.gov processed 93.7 million online payments valued at $228.5 billion. In addition, the Reserve Banks operated applications that facilitated the movement of $32.2 billion in commercial deposits to the Treasury's account at the Federal Reserve. The Reserve Banks also processed and settled 144.6 million electronic payment transactions valued at $933.2 billion.

Additionally, the Reserve Banks work with the Treasury to develop, operate, and maintain Do Not Pay, as well as provide agency outreach and data analytics services. Do Not Pay is designed to protect the integrity of the federal government's payment processes by assisting federal agencies in preventing and detecting improper payments.[8] In fiscal year 2022, Do Not Pay assisted more than 20 agencies in identifying or stopping improper payments totaling more than $67.3 million.

Financing and Securities Services

The Reserve Banks work closely with the Treasury to support its ability to raise the financing needed to operate the federal government, which includes functions such as cash forecasting, as well as auctioning, issuing, settling, maintaining, and redeeming marketable Treasury securities (bills, notes, and bonds). The Reserve Banks also support the Treasury by issuing, maintaining, and redeeming U.S. savings bonds, as well as providing related operations and fulfillment services. The Reserve Banks provide customer service and operate the automated systems that support marketable Treasury securities and savings bonds.

In 2022, the Treasury, supported by the Reserve Banks, conducted 384 auctions that resulted in the Treasury awarding $15.4 trillion in wholesale Treasury marketable securities to investors. The

[8] Do Not Pay is authorized and governed by the Payment Integrity Information Act of 2019, Pub. L. 116-117, 134 Stat. 113 (2020).

Reserve Banks also supported the issuance and servicing of $231.0 billion in savings bonds and marketable securities to investors.[9]

Reserve Bank expenses for financing and securities services were $207.8 million in 2022, an increase of $23.3 million, or 12.6 percent. This increase is primarily attributable to efforts to modernize the applications that facilitate the issuance, maintenance, and redemption of marketable Treasury securities and savings bonds.

Accounting and Reporting Services

The Reserve Banks support the Treasury's accounting and reporting functions by forecasting, monitoring, and managing the government's overall cash requirements, cash flow, and government-wide accounting services. The Reserve Banks also support the Treasury's publication of the daily and monthly Treasury statements; the Combined Statement of Receipts, Outlays, and Balances of the United States Government; and the *Financial Report of the United States Government*.[10]

Reserve Bank expenses for financial accounting and reporting services were $73.5 million in 2022, a decrease of $3.5 million, or 4.5 percent, primarily attributable to a change in categorization of costs. The programs that contributed most to Reserve Bank expenses in 2022 were the Cash Accounting Reporting System and G-Invoicing.

The Reserve Banks operate and maintain the Cash Accounting Reporting System, which handles accounting and reporting for all federal agencies and is the electronic system of record for the government's financial data. In addition, the Reserve Banks operate and maintain the G-Invoicing application, which is the long-term solution for federal agencies to manage intragovernmental financial transactions. In 2022, the Reserve Banks supported federal agencies to implement G-Invoicing for new orders related to intragovernmental transactions, which became mandatory in October 2022.

Infrastructure and Technology Services

The Reserve Banks design, build, and maintain the technology infrastructures and environments that host the majority of applications that the Reserve Banks develop, operate, or maintain on behalf of the Treasury.

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9 Demand for Treasury products increased approximately 40 percent in 2022, primarily because of the higher interest rate environment.

10 The Daily Treasury Statement summarizes the U.S. Treasury's cash and debt operations for the federal government on a modified cash basis and can be found at https://fiscal.treasury.gov/reports-statements/dts/. The Monthly Treasury Statement summarizes the financial activities of the federal government and off-budget federal entities and can be found at https://www.fiscal.treasury.gov/reports-statements/mts/. The Combined Statement of Receipts, Outlays, and Balances of the United States Government is recognized as the official publication of the government's receipts and outlays and can be found at https://fiscal.treasury.gov/reports-statements/combined-statement/. The Financial Report of the United States Government provides the President, Congress, and the American people with a comprehensive view of the federal government's finances and can be found at https://fiscal.treasury.gov/reports-statements/financial-report/.

In 2022, the Reserve Banks continued to build out and migrate applications to a cloud platform in alignment with the Treasury's cloud computing strategy.[11] The Reserve Banks continued to effectively operate infrastructures, plan for end-of-life issues, increase automation, and strengthen their systems against a host of new and evolving cybersecurity threats.

Reserve Bank expenses for infrastructure and technology services were $147.9 million in 2022, an increase of $18.6 million, or 14.4 percent, primarily attributable to expanded efforts to migrate applications to a cloud platform.

Services Provided to Other Entities

The Reserve Banks, when permitted by federal statute or when required by the Secretary of the Treasury, also provide other domestic and international entities with U.S.-dollar-denominated banking services, which include funds, securities, and gold safekeeping; securities clearing, settlement, and investment; and correspondent banking.

The Reserve Banks also issue and maintain, in electronic form, many federal agency, government-sponsored enterprise, and certain international organizations securities. The majority of securities services are performed for the Federal Home Loan Mortgage Association (Freddie Mac), the Federal National Mortgage Association (Fannie Mae), and the Government National Mortgage Association (Ginnie Mae).

Reserve Bank expenses for services provided to other entities were $16.1 million in 2022, a decrease of $8.5 million, or 34.6 percent, which reflects the full-year effect of a cost accounting change.

Evolutions and Improvements to the System

The Federal Reserve performs many functions in the payment system, including payment system operator, supervisor and regulator of financial institutions and systemically important financial market utilities, researcher, and catalyst for payment system improvements (see box 5.3 for more information on Federal Reserve payment research).

Digital Innovations

The Federal Reserve views developments in financial technology through the lens of its long-standing public policy goals of safety and soundness of financial institutions, consumer protection, safety and efficiency of the payment system, and financial stability. Within that framework,

[11] The Federal Cloud Computing Strategy—Cloud Smart—is a long-term, high-level strategy to drive Federal agency cloud adoption. Additional information can be found at https://www.cio.gov/policies-and-priorities/cloud-smart/.

Box 5.3. Payment System Research and Analysis

The Federal Reserve conducts research on a wide range of topics related to the design and activities of payment, clearing, and settlement systems and financial market infrastructures, as well as the role of these systems in the commercial activities of consumers, businesses, and governments.

In 2022, topics examined in Federal Reserve research included the following:

- measurement and analysis of short-run developments and long-run trends in the use of new and established payment methods[1]
- drivers and potential effects of innovations in the payment system, particularly those related to new and emerging technologies, such as instant payments and digital assets
- design, oversight, and regulation of financial market infrastructures
- developments related to payments fraud

In particular, see information about recent releases by the Federal Reserve Payments Study, available at https://www.federalreserve.gov/paymentsystems/fr-payments-study.htm.

For more information, see the Board's Payment Research website at https://www.federalreserve.gov/paymentsystems/payres_about.htm; see also Federal Reserve Bank Payments Groups at https://www.federalreserve.gov/paymentsystems/payres_fedgroups.htm.

[1] In particular, see information about recent releases by the Federal Reserve Payments Study, available at https://www.federalreserve.gov/paymentsystems/fr-payments-study.htm.

the Federal Reserve is actively engaged in supporting responsible innovation while ensuring associated risks are appropriately identified and managed.

The Federal Reserve is studying the implications of emerging financial technologies, including distributed ledger technologies and associated financial products such as cryptocurrencies and stablecoins. These technologies have raised fundamental questions about appropriate legal and regulatory safeguards. The Federal Reserve continues to monitor developments and works with domestic and international counterparts to better understand and manage the implications of these innovations (see box 5.4).

Payment System Regulation

Congress has assigned to the Board responsibility for implementing the Federal Reserve Act and certain other laws pertaining to a wide range of banking and financial activities, including those related to the payment and settlement system. The Board implements those laws in part through its regulations (see the Board's website at https://www.federalreserve.gov/supervisionreg/reglisting.htm).

In October 2022, the Board finalized updates to Regulation II, the Board's rule concerning debit card transactions. Pursuant to the Durbin Amendment to the Dodd-Frank Act, the updates specify

Box 5.4. The Federal Reserve's Research Work on Central Bank Digital Currency

Like other central banks, the Federal Reserve is engaged in research into central bank digital currency (CBDC). Its work does not indicate a decision to issue a CBDC; the research focuses on how a CBDC could improve on an already safe, effective, dynamic, and efficient domestic payments system and recognizes that the implications must be thought through very carefully. The design of a CBDC would raise important monetary policy, financial stability, consumer protection, cybersecurity, legal, and privacy considerations that require careful thought and analysis.

The Federal Reserve collaborates closely with international counterparts on issues related to digital payments and CBDC. This includes engagement with multilateral institutions, such as the Bank for International Settlements, G7, and Financial Stability Board, and bilateral engagements with other central banks. The Federal Reserve is part of a group of seven central banks and the Bank for International Settlements that are working together to explore central bank digital currencies. Topics that this group are investigating include system design, user needs, and financial stability implications.

The Federal Reserve is conducting independent research into the potential benefits, risks, and design considerations of a potential CBDC, in addition to technical experimentation. For example, in 2022 the Board's Technology Lab examined CBDCs broadly, focusing on understanding different technologies and design implications in addition to training technical staff on innovations in payment technologies. The Federal Reserve Bank of Boston and MIT's Digital Currency Initiative concluded exploratory research known as Project Hamilton, a multiyear research project to explore the CBDC design space and gain a hands-on understanding of a CBDC's technical challenges and opportunities.[1] The Federal Reserve Bank of New York's New York Innovation Center has been facilitating collaboration with the Bank for International Settlements on financial innovation.[2]

The Federal Reserve is actively engaged with a wide variety of stakeholders, such as those from government, academia, and the private sector, to gather perspectives and expertise about considerations such as potential CBDC uses and the range of design options. To help stimulate broad conversation, the Federal Reserve Board issued a discussion paper in January 2022, titled *Money and Payments: The U.S. Dollar in the Age of Digital Transformation*, outlining its current thinking on digital payments, with a particular focus on the benefits and risks associated with a CBDC in the U.S. context.[3] All comments and a summary of responses can be found on the Board's website.[4]

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1 See the Federal Reserve Bank of Boston's website for more information: https://www.bostonfed.org/news-and-events/news/2022/12/project-hamilton-boston-fed-mit-complete-central-bank-digital-currency-cbdc-project.aspx.

2 See the Federal Reserve Bank of New York's website for more information: https://www.newyorkfed.org/aboutthefed/nyic.

3 Board of Governors of the Federal Reserve System, *Money and Payments: The U.S. Dollar in the Age of Digital Transformation* (Washington: Board of Governors, January 2022), https://www.federalreserve.gov/publications/files/money-and-payments-20220120.pdf.

4 Federal Reserve Board—Public Comments, https://www.federalreserve.gov/cbdc-public-comments.htm.

that debit card issuers should enable at least two payment card networks to process all debit card transactions, including "card-not-present" transactions, such as online payments. The revisions address a disparity in the market between debit card networks' enhanced ability to process card-not-present transactions and some debit card issuers' continued enablement of only one network for merchants to choose between when routing such transaction.

Other Improvements and Efforts

The Reserve Banks have been engaged in a number of multiyear technology initiatives that will modernize their priced-services processing platforms. These investments are expected to enhance efficiency, the overall quality of operations, and the Reserve Banks' ability to offer additional services, consistent with the longstanding principles of fostering efficiency and safety, to depository institutions. The Reserve Banks continued to enhance the resiliency and information security posture of the Wholesale Payment Systems through Reserve Bank-led cyber initiatives to respond to environmental threats and cyberthreats. In 2022, the Reserve Banks advanced the safety and security of FedLine Solutions by making progress on key infrastructure upgrades and network modernization, as well as through proactive monitoring of an evolving threat environment.

During 2021, the Federal Reserve continued work to replace the aging high-speed currency-processing equipment and sensors at the Reserve Banks for deployment through 2028. In 2021, the Federal Reserve began the production development phase of the project to develop the high-speed currency-processing equipment for delivery beginning in 2025. In advance of the production rollout, prototype and preliminary equipment will be installed and tested at pilot offices through 2024. A system integration effort was initiated to prepare currency sensors and develop software for compatibility with the equipment.

The improvement of the efficiency, effectiveness, and security of information technology (IT) services and operations continued to be a central focus of the Reserve Banks. Under the leadership of the Federal Reserve's National IT organization and CIO, the System IT Strategic Plan was refreshed in 2021 for 2021–23 to set priorities, align IT direction and resources, and ensure that IT leaders and team members are working toward a common set of goals. The goals of the plan are security, simplicity, and productivity, with priorities in ensuring a secure and reliable infrastructure, modernized application delivery, cloud and modern infrastructure, digital work and collaboration, data management and analytics, cybersecurity, and IT workforce skills. National IT continues to guide the plan and track progress toward the goals. Additional efforts were initiated to strengthen incident communication requirements across Reserve Bank payment systems and operating units in response to a significant IT outage that affected the Federal Reserve's payment systems in February 2021.

With threat levels remaining elevated, the Reserve Banks remained vigilant with respect to cybersecurity posture, investing in risk-mitigation initiatives and programs and continuously monitoring and assessing cybersecurity risks to operations and protecting systems and data. The Federal Reserve System's overall security posture continues to be strengthened through several high-priority information security initiatives such as application and endpoint multifactor authentication, implementation of key ransomware protection and recovery technologies, and a focus on aligning with the pillars of zero-trust architecture. Through these efforts, the Reserve Banks continue to work together and with business partners to further enhance the state of information security across the Federal Reserve System.

Several Reserve Banks took action in 2022 to maintain and renovate their facilities. Major multi-year facility programs at several Reserve Bank offices continued, focused on updating obsolescent building systems to ensure infrastructure resiliency and continuity of operations. The Philadelphia Reserve Bank continued construction activities for its multiyear program to replace its entire mechanical and electrical infrastructure. The Miami Branch of the Federal Reserve Bank of Atlanta is in the planning stages for an extensive vault addition and remodel. The Federal Reserve Bank of New York is in the early phases of searching for property to build a new building to replace the existing East Rutherford Operations Center. Other programs addressed the need to update office and operations areas in support of efficiency and working environment.

For more information on the acquisition costs and net book value of the Reserve Banks and Branches, see table G.13 in appendix G ("Statistical Tables") of this annual report.

Oversight of Federal Reserve Banks

The combined financial statements of the Reserve Banks and the financial statements of each of the 12 Reserve Banks are audited annually by an independent public accounting firm retained by the Board of Governors.[12] In addition, the Reserve Banks are subject to oversight by the Board of Governors, which performs its own reviews.

The Reserve Banks use the 2013 framework established by the Committee of Sponsoring Organizations of the Treadway Commission (COSO) to assess their internal controls over financial reporting, including the safeguarding of assets. The management of each Reserve Bank annually provides an assertion letter to its board of directors that confirms adherence to COSO standards.

The Federal Reserve Board engaged KPMG LLP (KPMG) to audit the 2022 combined and individual financial statements of the Reserve Banks and the financial statements of the three limited liability companies (LLCs) that are associated with the Board of Governors' actions to address the coronavirus pandemic, of which two LLCs are consolidated in the statements of the Federal Reserve Bank of New York and one LLC is consolidated in the statements of the Federal Reserve Bank of Boston.[13]

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[12] See "Federal Reserve Banks Combined Financial Statements" at https://www.federalreserve.gov/aboutthefed/audited-annual-financial-statements.htm.

[13] In addition, KPMG audited the Office of Employee Benefits of the Federal Reserve System, the Retirement Plan for Employees of the Federal Reserve System (System Plan), and the Thrift Plan for Employees of the Federal Reserve System (Thrift Plan). The System Plan and the Thrift Plan provide retirement benefits to employees of the Board, the Federal Reserve Banks, the Office of Employee Benefits of the Federal Reserve System, and the Consumer Financial Protection Bureau.

In 2022, KPMG also conducted audits of internal controls over financial reporting for each of the Reserve Banks. Fees for KPMG services totaled $9.2 million, of which approximately $1.5 million was for the audits of the LLCs.[14] To ensure auditor independence, the Board of Governors requires that KPMG be independent in all matters relating to the audits. Specifically, KPMG may not perform services for the Reserve Banks or affiliated entities that would place it in a position of auditing its own work, making management decisions on behalf of the Reserve Banks, or in any other way impairing its audit independence. In 2022, the Reserve Banks did not engage KPMG for significant non-audit services.

The Board's reviews of the Reserve Banks include a wide range of oversight activities, conducted primarily by its Division of Reserve Bank Operations and Payment Systems. Division personnel monitor, on an ongoing basis, the activities of each Reserve Bank, Federal Reserve Information Technology, the System's Office of the Chief Payments Executive, and the System's Office of Employee Benefits. The oversight program identifies the most strategically important Reserve Bank current and emerging risks and defines specific approaches to achieve a comprehensive evaluation of the Reserve Banks' controls, operations, and management effectiveness.

The comprehensive reviews include an assessment of the internal audit function's effectiveness and its conformance to the Institute of Internal Auditors' (IIA) International Standards for the Professional Practice of Internal Auditing, applicable policies and guidance, and the IIA's code of ethics.

The Board also reviews the System Open Market Account (SOMA) and foreign currency holdings annually to

- determine whether the New York Reserve Bank, while conducting the related transactions and associated controls, complies with the policies established by the Federal Open Market Committee (FOMC); and
- assess the SOMA-related IT project management and application development, vendor management, and system resiliency and contingency plans.

In addition, KPMG audits the year-end schedule of the SOMA participated asset and liability accounts and the related schedule of participated income accounts. The FOMC is provided with the external audit reports and a report on the Board review.

[14] Each LLC will reimburse the Board of Governors for the fees related to the audit of its financial statements from the entity's available assets.

Income and Expenses

Annually, the Board releases the Combined Reserve Banks financial statements with financial information as of December 31 and includes the accounts and results of operations of each of the 12 Reserve Banks.

In 2022, income was $170.7 billion, compared with $123.1 billion in 2021; expenses totaled $111.9 billion, compared with $15.2 billion in 2021; and net income before remittances to the Treasury totaled $58.8 billion, compared with $107.9 billion in 2021.

In accordance with the Federal Reserve Act, the Reserve Banks remit excess earnings to the Treasury after providing for the cost of operations, payment of dividends, and reservation of an amount necessary to a maintain aggregate surplus. During the first three quarters of 2022, Reserve Banks transferred $76.0 billion from weekly earnings to the U.S. Treasury. In the fall of 2022, Reserve Bank earnings became negative due to the increase in interest expense on depository institution deposits and interest expense on securities sold under agreements to repurchase and most Reserve Banks first suspended weekly remittances to the Treasury and started accumulating a deferred asset. A deferred asset represents the shortfall in earnings from the most recent point that remittances were suspended and is the amount of net excess earnings Reserve Banks will need to realize in the future before remittances to the Treasury resume.

Table 5.3 summarizes the income, expenses, and distributions of net earnings of the Reserve Banks for 2022 and 2021. Appendix G of this report, “Statistical Tables,” provides more detailed information on the Reserve Banks, including the consolidated LLCs.[15] Additionally, appendix G summarizes the Reserve Banks’ 2022 budget performance and 2023 budgets, budgeting processes, and trends in expenses and employment.

[15] Table G.8A is a statement of condition for each Reserve Bank, table G.9 details the income and expenses of each Reserve Bank for 2022, table G.10 shows a condensed statement for each Reserve Bank for the years 1914 through 2022, and table G.12 gives the number and annual salaries of officers and employees for each Reserve Bank.

Table 5.3. Income, expenses, and distribution of net earnings of the Federal Reserve Banks, 2022 and 2021
Millions of dollars

Item	2022	2021
Current income	170,684	123,059
Loan interest income	154	229
SOMA interest income	169,979	122,326
Other current income[1]	551	504
Net expenses	107,850	11,008
Operating expenses	5,373	5,092
Reimbursements	−846	−787
System pension service cost	946	954
Interest paid on depository institutions deposits and others	60,405	5,333
Interest expense on securities sold under agreements to repurchase	41,967	414
Other expenses	5	2
Current net income	62,834	112,051
Net additions to (deductions from) current net income	−1,248	−1,538
Treasury securities gains, net	−5	0
Federal agency and government-sponsored enterprise mortgage-backed securities (losses) gains, net	−234	−35
Foreign currency translation gains (losses), net	−1,762	−1,856
Other additions or deductions	753	353
Assessments by the Board of Governors[2]	2,791	2,633
For Board expenditures	1,015	970
For currency costs	1,054	1,035
For Consumer Financial Protection Bureau costs[3]	722	628
Net income before providing for remittances to the Treasury	58,795	107,880
Consolidated variable interest entities: Income (loss), net	1,742	975
Consolidated variable interest entities: Non-controlling interest (income) loss, net	−1,701	−927
Reserve Bank and consolidated variable interest entities net income before providing for remittances to the Treasury	58,836	107,928
Earnings remittances to the Treasury	59,446	109,025
Net income after providing for remittances to the Treasury	−610	−1,097
Other comprehensive gain (loss)	1,819	−1,640
Comprehensive income	1,209	543
Total distribution of net income	**60,655**	**109,568**
Dividends on capital stock	1,209	583
Transfer from surplus and change in accumulated other comprehensive income	0	−40
Remittances transferred to the Treasury[4]	76,031	109,025
Deferred asset increase	−16,585	0
Earnings remittances to the Treasury, net	59,446	109,025

[1] Includes income from priced services and securities lending fees.
[2] A detailed account of the assessments and expenditures of the Board of Governors appears in the Board of Governors Financial Statements (see https://www.federalreserve.gov/aboutthefed/audited-annual-financial-statements.htm).
[3] The Board of Governors assesses the Reserve Banks to fund the operations of the Consumer Financial Protection Bureau.
[4] Represents cumulative excess earnings remitted to the Treasury during the period prior to entering a period of a shortfall of earnings and suspending remittances.

SOMA Holdings

The FOMC has authorized and directed the Federal Reserve Bank of New York to execute open market transactions to the extent necessary to carry out the domestic policy directive adopted by the FOMC. The Federal Reserve Bank of New York, on behalf of the Reserve Banks, holds in the SOMA the resulting securities, which include U.S. Treasuries, federal agency and government-sponsored enterprise debt securities, federal agency and government-sponsored enterprise mortgage-backed securities, investments denominated in foreign currencies, and commitments to buy or sell related securities.[16]

Table 5.4 summarizes the average daily assets (liabilities), current income (expenses), and average interest rate of the SOMA holdings for 2022 and 2021.

Lending

In 2022, the average daily balance and the average rate of interest earned for Reserve Bank lending programs were as follows:

- Primary, secondary, and seasonal credit extended was $3,178 million and 2.75 percent.
- Paycheck Protection Program Liquidity Facility (PPPLF) was $19,215 million and 0.35 percent.

In addition, the Reserve Banks provided loans to special purpose vehicles (SPVs) that were established to administer liquidity programs created in response to the coronavirus pandemic. These SPVs provided liquidity to market participants through the purchase of assets in accordance with the terms of each liquidity program.

[16] See table G.2 in appendix G for a list of Federal Reserve holdings of U.S. Treasuries and federal agency securities.

Table 5.4. System Open Market Account holdings, 2022 and 2021
Millions of dollars, except as noted

Item	Average daily assets (+)/liabilities (−)			Current income (+)/expense (−)			Average interest rate (percent)	
	2022	2021	Year-over-year change	2022	2021	Year-over-year change	2022	2021
System Open Market Account (SOMA) holdings								
Securities purchased under agreements to resell	1	162	−161	0	1	−1	2.25	0.35
U.S. Treasury securities, net[1]	5,937,386	5,456,776	480,610	115,872	92,610	23,261	1.95	1.70
Federal agency and government-sponsored enterprise (GSE) mortgage-backed securities, net[2]	2,760,954	2,417,179	343,775	53,959	29,619	24,340	1.95	1.23
Government-sponsored enterprise debt securities, net[1]	2,597	2,622	−25	133	134	−1	5.11	5.11
Foreign currency denominated investments[3]	18,504	21,294	−2,790	−3	−45	42	−0.01	−0.21
Central bank liquidity swaps[4]	666	2,178	−1,512	18	7	11	2.68	0.33
Other SOMA assets[5]	21	61	−40	*	*	*	0.00	0.66
Total SOMA assets	8,720,129	7,900,272	819,857	169,979	122,326	47,652	1.95	1.55
Securities sold under agreements to repurchase: primary dealers and expanded counterparties	−1,997,187	−717,540	−1,279,647	−36,655	−337	−36,318	1.84	0.05
Securities sold under agreements to repurchase: foreign official and international accounts	−290,553	−251,068	−39,485	−5,312	−77	−5,235	1.83	0.03
Total securities sold under agreements to repurchase	−2,287,740	−968,608	−1,319,132	−41,967	−414	−41,553	1.83	0.04
Other SOMA liabilities[6]	-834	−4,368	3,534	n/a	n/a	n/a	n/a	n/a
Total SOMA liabilities	−2,288,574	−972,976	−1,315,598	−41,967	−414	−41,553	1.83	0.04
Total SOMA holdings	**6,431,555**	**6,927,296**	**−495,741**	**128,011**	**121,912**	**6,099**	**1.99**	**1.76**

1 Face value, net of unamortized premiums and discounts.
2 Face value, which is the remaining principal balance of the securities, net of unamortized premiums and discounts. Does not include unsettled transactions.
3 Foreign currency denominated assets are revalued daily at market exchange rates.
4 Dollar value of foreign currency held under these agreements valued at the exchange rate to be used when the foreign currency is returned to the foreign central bank. This exchange rate equals the market exchange rate used when the foreign currency was acquired from the foreign central bank.
5 Cash and short-term investments related to the federal agency and government-sponsored enterprise mortgage-backed securities (GSE MBS) portfolio.
6 Represents the obligation to return cash margin posted by counterparties as collateral under commitments to purchase and sell federal agency and GSE MBS, as well as obligations that arise from the failure of a seller to deliver securities on the settlement date.
n/a Not applicable.
* Less than $500,000.

Pro Forma Financial Statements for Federal Reserve Priced Services

Table 5.5. Pro forma balance sheet for Federal Reserve priced services, December 31, 2022 and 2021
Millions of dollars

Item	2022		2021	
Short-term assets (note 1)				
Imputed investments	539.0		626.0	
Receivables	44.0		44.4	
Inventory	0.6		0.5	
Prepaid expenses	44.8		25.2	
Items in process of collection	72.3		76.4	
Total short-term assets		700.8		772.5
Long-term assets (note 2)				
Premises	103.2		93.2	
Furniture and equipment	35.4		44.0	
Leases, leasehold improvements, and long-term prepayments	80.3		69.5	
Deferred tax asset	149.5		179.7	
Total long-term assets		368.5		386.4
Total assets		1,069.3		1,158.9
Short-term liabilities (note 3)				
Deferred-availability items	611.3		659.4	
Short-term debt	52.2		0.0	
Short-term payables	37.3		37.8	
Total short-term liabilities		700.8		697.2
Long-term liabilities (note 3)				
Long-term debt	98.5		0.0	
Accrued benefit costs	215.4		403.7	
Total long-term liabilities		314.0		403.7
Total liabilities		1,014.8		1,101.0
Equity (including accumulated other comprehensive loss of $590.0 million and $686.5 million at December 31, 2022 and 2021, respectively)		54.5		57.9
Total liabilities and equity (note 3)		1,069.3		1,158.9

Note: Components may not sum to totals because of rounding. The accompanying notes are an integral part of these pro forma priced services financial statements.

Table 5.6. Pro forma income statement for Federal Reserve priced services, 2022 and 2021
Millions of dollars

Item	2022		2021	
Revenue from services provided to depository institutions (note 4)		466.7		456.0
Operating expenses (note 5)		461.4		448.3
Income from operations		5.3		7.7
Imputed costs (note 6)				
Interest on debt	0.0		0.4	
Interest on float	−3.5		−0.1	
Sales taxes	3.9	0.4	3.4	3.7
Income from operations after imputed costs		4.9		4.0
Other income and expenses (note 7)				
Investment income	0.1		0.0	
Income before income taxes		5.0		4.0
Imputed income taxes (note 6)		1.0		0.8
Net income		4.0		3.2
Memo: Targeted return on equity (note 6)		7.2		4.4

Note: Components may not sum to totals because of rounding. The accompanying notes are an integral part of these pro forma priced services financial statements.

Table 5.7. Pro forma income statement for Federal Reserve priced services, by service, 2022
Millions of dollars

Item	Total	Commercial check collection	Commercial ACH	Fedwire funds	Fedwire securities
Revenue from services (note 4)	466.7	110.5	174.0	157.2	24.9
Operating expenses (note 5)[1]	461.4	107.7	171.1	160.3	22.2
Income from operations	5.3	2.8	2.8	−3.1	2.7
Imputed costs (note 6)	0.4	1.8	−2.8	1.3	0.2
Income from operations after imputed costs	4.9	1.0	5.6	−4.4	2.5
Other income and expenses, net (note 7)	0.1	0.0	0.0	0.0	0.0
Income before income taxes	5.0	1.0	5.7	−4.3	2.5
Imputed income taxes (note 6)	1.0	0.2	1.1	−0.9	0.5
Net income	4.0	0.8	4.5	−3.5	2.0
Memo: Targeted return on equity (note 6)	7.2	1.0	1.6	4.3	0.2
Cost recovery (percent) (note 8)	99.3	99.8	101.7	95.3	107.7

Note: Components may not sum to totals because of rounding. Excludes amounts related to development of the FedNow Service. The accompanying notes are an integral part of these pro forma priced services financial statements.
[1] Operating expenses include pension costs, Board expenses, and reimbursements for certain nonpriced services.

Notes to Pro Forma Financial Statements for Priced Services

(1) Short-Term Assets

Receivables are composed of fees due the Reserve Banks for providing priced services and the share of suspense- and difference-account balances related to priced services.

Items in process of collection are gross Federal Reserve cash items in process of collection (CIPC), stated on a basis comparable to that of a commercial bank. They reflect adjustments for intra-Reserve Bank items that would otherwise be double-counted on the combined Federal Reserve balance sheet and adjustments for items associated with nonpriced items (such as those collected for government agencies). Among the costs to be recovered under the Monetary Control Act is the cost of float, or net CIPC during the period (the difference between gross CIPC and deferred-availability items, which is the portion of gross CIPC that involves a financing cost), valued at the federal funds rate. Investments of excess financing derived from credit float are assumed to be invested in federal funds.

(2) Long-Term Assets

Long-term assets consist of long-term assets used solely in priced services and the priced-service portion of long-term assets shared with nonpriced services, including a deferred tax asset related to the priced services pension and postretirement benefits obligation. The tax rate associated with the deferred tax asset was 20.3 percent for 2022 and 20.8 percent for 2021.

Long-term assets also consist of an estimate of the assets of the Board of Governors used in the development of priced services.

(3) Liabilities and Equity

Under the matched-book capital structure for assets, short-term assets are financed with short-term payables and imputed short-term debt, if needed. Long-term assets are financed with long-term liabilities, imputed long-term debt, and imputed equity, if needed. To meet the Federal Deposit Insurance Corporation (FDIC) requirements for a well-capitalized institution, in 2022 equity is imputed at 5.1 percent of total assets and 10.0 percent of risk-weighted assets, and 2021 equity is imputed at 5.0 percent of total assets and 10.5 percent of risk-weighted assets.

The Board's Payment System Risk policy reflects the international standards for financial market infrastructures developed by the Committee on Payment and Settlement Systems and the Technical Committee of the International Organization of Securities Commissions in the Principles for Financial Market Infrastructures. The policy outlines the expectation that the Fedwire Services will meet or exceed the applicable risk-management standards. Although the Fedwire Funds Service does not face the risk that a business shock would cause the service to wind down in a disorderly manner and disrupt the stability of the financial system, in order to foster competition with private-sector financial market infrastructures, the Reserve Banks' priced services will hold six months of the Fedwire Funds Service's current operating expenses as liquid net financial assets and equity on the pro forma balance sheet and, if necessary, impute additional assets and equity to meet the requirement. The imputed assets held as liquid net financial assets are cash items in process of collection, which are assumed to be invested in federal funds. In 2022, there were sufficient assets and equity such that additional imputed balances were not required. In 2021, an additional balance of $43 million was imputed to meet sufficient assets and equity requirements.

In accordance with ASC 715, *Compensation–Retirement Benefits*, the Reserve Banks record the funded status of pension and other benefit plans on their balance sheets. To reflect the funded status of their benefit plans, the Reserve Banks recognize the deferred items related to these plans, which include prior service costs and actuarial gains or losses, on the balance sheet. This results in an adjustment to the pension and other benefit plan liabilities related to priced services and the recognition of an associated deferred tax asset with an offsetting adjustment, net of tax, to accumulated other comprehensive income (AOCI), which is included in equity. The Reserve Bank priced services recognized a pension asset, which is a component of accrued benefit costs, of $68.2 million in 2022 and a pension liability of $27.3 million in 2021. The change in the funded status of the pension and other benefit plans resulted in a corresponding increase in accumulated other comprehensive loss of $96.5 million in 2021.

(4) Revenue

Revenue represents fees charged to depository institutions for priced services and is realized from each institution through direct charges to an institution's account.

(5) Operating Expenses

Operating expenses consist of the direct, indirect, and other general administrative expenses of the Reserve Banks for priced services (that is, Check, ACH, FedWire Funds, and FedWire Securities) and the expenses of the Board related to the development of priced services. Board expenses were $6.2 million in 2022 and $6.6 million in 2021. Operating expenses exclude amounts related to the development of the FedNow Service.

In accordance with ASC 715, the Reserve Bank priced services recognized qualified pension-plan service costs of $64.1 million in 2022 and $65.3 million in 2021. Operating expenses also include the nonqualified service costs of $4.6 million in 2022 and $4.3 million in 2021. In 2019 Reserve Banks adopted an update to ASC 715 requiring disaggregation of other components of net benefit expense from service costs. The adoption of ASC 715 does not change the systematic approach required by generally accepted accounting principles to recognize the expenses associated with the Reserve Banks' benefit plans in the income statement. As a result, these expenses do not include amounts related to changes in the funded status of the Reserve Banks' benefit plans, which are reflected in AOCI.

The income statement by service reflects revenue, operating expenses, imputed costs, other income and expenses, and cost recovery. The tax rate associated with imputed taxes was 20.3 percent for 2022 and 20.8 percent for 2021.

(6) Imputed Costs

Imputed costs consist of income taxes, return on equity, interest on debt, sales taxes, and interest on float. Many imputed costs are derived from the PSAF model. The 2022 cost of short-term debt imputed in the PSAF model is based on nonfinancial commercial paper rates; the cost of imputed long-term debt is based on Merrill Lynch Corporate and High Yield Index returns; and the effective tax rate is derived from U.S. publicly traded firm data, which serve as the proxy for the financial data of a representative private-sector firm. The after-tax rate of return on equity is based on the returns of the equity market as a whole.[17]

Interest is imputed on the debt assumed necessary to finance priced-service assets. These imputed costs are allocated among priced services according to the ratio of operating expenses for each service to the total expenses for all services.

Interest on float is derived from the value of float to be recovered for the check and ACH services, Fedwire Funds Service, and Fedwire Securities Services through per-item fees during the period. Float income or cost is based on the actual float incurred for each priced service.

The following shows the daily average recovery of actual credit float by the Reserve Banks for 2022 and 2021, in millions of dollars:[18]

Daily average recovery of actual float	2022	2021
Total float	−219.4	−185.2
Float not related to priced services[1]	−15.4	−31.9
Float subject to recovery through per-item fees	−204.0	−153.3

[1] Float not related to priced services includes float generated by services to government agencies and by other central bank services.

Float that is created by account adjustments due to transaction errors and the observance of non-standard holidays by some depository institutions was recovered from the depository institutions through charging institutions directly. Float subject to recovery is valued at the federal funds rate.

[17] See Federal Reserve Bank Services Private-Sector Adjustment Factor, 77 Fed. Reg. 67,007 (November 8, 2012), https://www.gpo.gov/fdsys/pkg/FR-2012-11-08/pdf/2012-26918.pdf, for details regarding the PSAF methodology change.

[18] Credit float occurs when the Reserve Banks debit the paying bank for checks and other items before providing credit to the depositing bank.

Certain ACH funding requirements and check products generate credit float; this float has been subtracted from the cost base subject to recovery in 2022 and 2021.

(7) Other Income and Expenses

Other income consists of income on imputed investments. Excess financing resulting from additional equity imputed to meet the FDIC well-capitalized requirements is assumed to be invested and earning interest at the 3-month Treasury bill rate.

(8) Cost Recovery

Annual cost recovery is the ratio of revenue, including other income, to the sum of operating expenses, imputed costs, imputed income taxes, and after-tax targeted return on equity.

6 | Consumer and Community Affairs

The Federal Reserve is committed to promoting fair and transparent financial service markets, protecting consumers' rights, and ensuring that its policies and research include consumer and community perspectives. The Board promotes consumer protection, financial inclusion, and community development through targeted work in supervision, regulatory policy, and research and analysis (see figure 6.1). This section discusses the Federal Reserve's key consumer and community affairs activities during 2022:

- formulating and carrying out supervision and examination policy in collaboration with the Federal Reserve System to ensure financial institutions comply with consumer protection laws and regulations
- writing and reviewing regulations that implement consumer protection and community reinvestment laws
- conducting research, analysis, and data collection to identify and assess emerging consumer and community development issues and risks to inform policy decisions

Figure 6.1. The Federal Reserve supports consumer and community mandates through a broad range of activities

Through publications, events, and outreach, the Federal Reserve kept pace with rapid changes in the financial industry and their effects on consumers and communities. See box 6.1 for information on how Federal Reserve initiatives informed responsive guidance, research, and engagement.

Updating laws and policies	Advancing research and engagement
The Board, the Federal Deposit Insurance Corporation, and the Office of the Comptroller of the Currency issued a notice of proposed rulemaking to modernize CRA regulations and collected public comments.	The SHED report and Community Development Research Seminar Series considered topics including emerging financial products and workforce development. Publications on small business lending and Community Advisory Council outreach offered insight into the progress of the economic recovery.

Note: *CRA* refers to the Community Reinvestment Act. *SHED* refers to the Board's annual Survey of Household Economics and Decisionmaking.

- identifying issues and advancing effective community development by engaging, convening, and informing key stakeholders

To better understand consumer financial circumstances, the Federal Reserve conducted the yearly Survey on Household Economics and Decisionmaking (SHED) in October 2022. For more information on our consumer and community research, see "Consumer Research and Analysis of Emerging Issues and Policy" later in this section.

Consumer Compliance Supervision

The Federal Reserve's consumer protection supervision program assesses compliance by state member banks with a wide range of consumer protection laws and regulations including, but not limited to, the Truth in Lending Act (TILA), the Electronic Fund Transfer Act, the Equal Credit Opportunity Act (ECOA), the Fair Housing Act (FHA), and the prohibition on unfair or deceptive acts or practices (UDAP) in the Federal Trade Commission Act (FTC Act). The program also enforces these laws and regulations and reviews state member banks' performance under the Community Reinvestment Act (CRA).

The Board's Division of Consumer and Community Affairs develops policies that govern and establish requirements for oversight of the Reserve Banks' programs for consumer compliance supervision and examination of state member banks and bank holding companies (BHCs), as well as participating in some Large Institution Supervision Coordinating Committee initiatives.

In addition, the Board coordinates with the prudential regulators and the Consumer Financial Protection Bureau (CFPB) as part of the supervisory coordination requirements under the Dodd-Frank Wall Street Reform and Consumer Protection Act (Dodd-Frank Act) and ensures that consumer compliance risk is appropriately incorporated into financial institutions' consolidated risk-management programs.

The Board also oversees the development and delivery of examiner training and supervision-related budget and technology efforts; analyzes bank and BHC applications related to consumer protection, convenience and needs, and the CRA; and oversees the handling of certain types of consumer complaints by the Reserve Banks and directly processes certain consumer complaints such as congressional complaints and appeals.

Consumer Compliance Examinations

Examinations are the Federal Reserve's primary method of ensuring compliance with consumer protection laws and assessing the adequacy of consumer compliance risk-management systems within regulated entities.[1] During 2022, the Federal Reserve, in conjunction with the federal and state financial institution regulatory agencies, updated regulations to encourage transparency.

The Board's regulatory efforts supported financial institutions by clarifying examination guidelines and procedures. In January 2022, the Board joined the other Federal Financial Institutions Examination Council (FFIEC) agencies in outlining principles for examination information requests, which FFIEC members developed as part of the final phase of the Examination Modernization Project.[2] The Federal Reserve and its FFIEC partners also revised the guide to Home Mortgage Disclosure Act (HMDA) reporting.[3] Issued in May, the updated guide summarizes key requirements to assist financial institutions complying with HMDA as implemented by the CFPB's Regulation C.

The Federal Reserve continued to monitor financial institutions for regulatory compliance during the year. The Reserve Banks completed 370 examinations in 2022. The breakdown of consumer compliance examinations completed by Reserve Banks in 2022 included 183 consumer compliance examinations of state member banks, 172 CRA examinations of state member banks, 13 examinations of foreign banking organizations, and 2 examinations of Edge Act corporations or agreement corporations.[4]

Community Reinvestment Act

The CRA requires that the Federal Reserve and other federal banking regulatory agencies encourage financial institutions to help meet the credit needs of the local communities where they do business, consistent with safe-and-sound operations. To carry out this mandate, the Federal Reserve

- examines state member banks to assess their performance under the CRA,
- considers banks' CRA performance in context with other supervisory information when analyzing applications for mergers and acquisitions, and

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[1] The Federal Reserve has examination and enforcement authority for federal consumer financial laws and regulations for insured depository institutions with assets of $10 billion or less that are state member banks and not affiliates of covered institutions, as well as for conducting CRA examinations for all state member banks regardless of size. The Federal Reserve also has examination and enforcement authority for certain federal consumer financial laws and regulations for insured depository institutions that are state member banks regardless of asset size, while the CFPB has examination and enforcement authority for many federal consumer financial laws and regulations for insured depository institutions with over $10 billion in assets and their affiliates (covered institutions), as mandated by the Dodd-Frank Act. For data on state member banks and other institutions supervised by the Federal Reserve (including number and assets of), see section 4, "Supervision and Regulation."

[2] See supervision and regulation (SR)/community affairs (CA) letter SR 22-3/CA 22-1, "Federal Financial Institutions Examination Council Issues Statement of Principles on Examination Information Requests," https://www.federalreserve.gov/supervisionreg/srletters/SR2203.htm.

[3] See CA letter 22-4, "Revised 'A Guide to HMDA Reporting: Getting It Right!,'" https://www.federalreserve.gov/supervisionreg/caletters/caltr2204.htm.

[4] Agency and branch offices of foreign banking organizations, Edge Act corporations, and agreement corporations fall under the Federal Reserve's purview for consumer compliance activities. An agreement corporation is a type of bank chartered by a state to engage in international banking. The bank agrees with the Federal Reserve Board to limit its activities to those allowed by an Edge Act corporation. An Edge Act corporation is a banking institution with a special charter from the Federal Reserve to conduct international banking operations and certain other forms of business without complying with state-by-state banking laws. By setting up or investing in Edge Act corporations, U.S. banks can gain portfolio exposure to financial investing operations not available under standard banking laws.

- disseminates information about community development practices to bankers and the public through community development offices at the Reserve Banks.[5]

The Federal Reserve assesses and rates the CRA performance of state member banks during examinations conducted by staff at the 12 Reserve Banks. During the 2022 reporting period, the Reserve Banks completed 172 CRA examinations of state member banks. Of those banks examined, 21 were rated "Outstanding," 149 were rated "Satisfactory," 2 were rated "Needs to Improve," and none were rated "Substantial Non-Compliance."

In addition to annual evaluations, the Board continued to work to reform CRA regulations, analyzing public comments on the interagency notice of proposed rulemaking (NPR) and collaborating with the Office of the Comptroller of the Currency (OCC) and the Federal Deposit Insurance Corporation (FDIC) on preparation of a final rule.[6]

Consumer Compliance Enforcement Activities

Fair Lending and UDAP Enforcement

The Federal Reserve is committed to ensuring that institutions it supervises comply fully with the federal fair lending and consumer protection laws, including the ECOA, the FHA, and the FTC Act, which prohibits unfair or deceptive acts or practices. The ECOA prohibits creditors from discriminating against any applicant, in any aspect of a credit transaction, on the basis of race, color, religion, national origin, sex, marital status, or age. In addition, creditors may not discriminate against an applicant because the applicant receives income from a public assistance program or has exercised, in good faith, any right under the Consumer Credit Protection Act. The FHA prohibits discrimination in residential real estate–related transactions, including the making and purchasing of mortgage loans, on the basis of race, color, religion, sex, handicap, familial status, or national origin.

The Federal Reserve supervises all state member banks for compliance with the FHA. The Federal Reserve and the CFPB have supervisory authority for compliance with the ECOA. For state member banks with assets of $10 billion or less, the Board has the authority to enforce the ECOA. For state member banks with assets over $10 billion, the CFPB has this authority.

With respect to the FTC Act, the Federal Reserve has supervisory and enforcement authority over all state member banks, regardless of asset size and consults with the CFPB with regard to state member banks over $10 billion in assets. An act or practice may be found to be unfair if it causes

[5] For more information on various community development activities of the Federal Reserve System, see https://www.fedcommunities.org/.

[6] See Community Reinvestment Act, 87 Fed. Reg. 33,884 (proposed June 3, 2022), https://www.govinfo.gov/content/pkg/FR-2022-06-03/pdf/2022-10111.pdf.

or is likely to cause substantial injury to consumers that is not reasonably avoidable by consumers and not outweighed by countervailing benefits to consumers or to competition. A representation, omission, or practice is deceptive if it is likely to mislead a consumer acting reasonably under the circumstances and is material, and thus likely to affect a consumer's conduct or decision regarding a product or service.

When examiners find evidence of potential discrimination or potential UDAP violations, they work closely with the Board's Fair Lending or UDAP Enforcement staff, who provide additional legal and statistical expertise and ensure that fair lending and UDAP laws are enforced consistently and rigorously throughout the Federal Reserve System.

With respect to fair lending, pursuant to the ECOA, if the Board has reason to believe that a creditor has engaged in a pattern or practice of discrimination in violation of the ECOA, the matter must be referred to the Department of Justice (DOJ). The DOJ reviews the referral and determines whether further investigation is warranted. A DOJ investigation may result in a public civil enforcement action. Alternatively, the DOJ may decide to return the matter to the Board for administrative action. If a matter is returned to the Board, staff ensure that the institution takes all appropriate corrective action.

In 2022, the Board referred one fair lending matter to DOJ. The matter involved a pattern or practice of discrimination on the basis of familial status and through discouragement on the basis of marital status in violation of ECOA and Regulation B.

If there is a fair lending violation that does not constitute a pattern or practice of discrimination under the ECOA or if there is a UDAP violation, the Federal Reserve takes action to ensure that the violation is remedied by the bank. The Federal Reserve uses a range of supervisory and enforcement tools, including nonpublic and public enforcement actions, to resolve any ECOA, FHA, or UDAP violations and ensure that the institution takes appropriate corrective action. For example, the Federal Reserve often uses informal supervisory tools such as memoranda of understanding between banks' boards of directors and the Reserve Banks, or board resolutions to ensure that violations are corrected. When necessary, the Board can bring public enforcement actions.

Given the complexity of this supervision area, the Federal Reserve seeks to provide transparency on its perspectives and processes to the industry and the public. Fair Lending and UDAP Enforcement staff meet with supervised institutions, consumer advocates, and industry representatives to discuss fair lending and UDAP issues and receive feedback. Through this outreach, the Board can address emerging fair lending and UDAP issues and promote sound fair lending and UDAP compliance. This includes staff participation in numerous meetings, conferences, and training events.

The Federal Reserve's outreach included the annual Board-sponsored Interagency Fair Lending Webinar, which attracted more than 6,393 registrants in 2022 and covered a variety of fair lending topics such as redlining, appraisal bias, special purpose credit programs, and other supervision and enforcement-related updates from participating agencies.[7]

Flood Insurance Enforcement

The National Flood Insurance Act imposes certain requirements on loans secured by buildings or mobile homes located in, or to be located in, areas determined to have special flood hazards. Under the Federal Reserve's Regulation H, which implements the act, state member banks are generally prohibited from making, extending, increasing, or renewing any such loan unless the building or mobile home, as well as any personal property securing the loan, are covered by flood insurance for the term of the loan. The law requires the Board and other federal financial institution regulatory agencies to impose civil money penalties when they find a pattern or practice of violations of the regulation.

In 2022, the Federal Reserve issued six formal consent orders and assessed approximately $436,400 in civil money penalties against state member banks to address violations of the flood regulation.[8] These statutorily mandated penalties were forwarded to the National Flood Mitigation Fund held by the Treasury for the benefit of the Federal Emergency Management Agency.

Mergers and Acquisitions

The Board is required by law to consider specific factors when evaluating proposed mergers and acquisitions, including competitive considerations, financial condition, managerial resources (including compliance with laws and regulations), convenience and needs of the community to be served (including the record of performance under the CRA), and financial stability.

In evaluating bank applications, the Federal Reserve relies on the banks' overall compliance record, including recent fair lending examinations. In addition, the Federal Reserve considers the CRA records of the relevant depository institutions, assessments of other relevant supervisors, the supervisory views of examiners, and information provided by the applicant and public commenters. If warranted, the Federal Reserve will also conduct pre-membership exams for a transaction in which an insured depository institution will become a state member bank or in which the surviving entity of a merger would be a state member bank.[9]

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[7] To view the webinar and the census reports by metropolitan statistical area (MSA), see "Consumer Compliance Outlook Live" at https://consumercomplianceoutlook.org/outlook-live/archives/.

[8] To view press releases for enforcement actions, see https://www.federalreserve.gov/newsevents/pressreleases.htm.

[9] In October 2015, the Federal Reserve issued guidance providing further explanation on its criteria for waiving or conducting such pre-merger or pre-membership examinations. For more information, see https://www.federalreserve.gov/supervisionreg/srletters/SR1511.htm.

The Board provides information on its actions associated with these merger and acquisition transactions, issuing press releases and Board Orders for each.[10] The Federal Reserve also publishes semiannual reports that provide pertinent information on applications and notices filed with the Federal Reserve.[11] The reports include statistics on the number of proposals that were approved, denied, and withdrawn as well as general information about the length of time taken to process proposals. Additionally, the reports discuss common reasons that proposals have been withdrawn from consideration. Furthermore, the reports compare processing times for merger and acquisition proposals that received adverse public comments and those that did not. See box 6.1 for information on some of the Board's 2022 initiatives related to banking mergers and acquisitions.

Coordination with Other Agencies

Coordination with the Consumer Financial Protection Bureau

During 2022, staff continued to coordinate on supervisory matters with the CFPB in accordance with the Interagency Memorandum of Understanding on Supervision Coordination. The agreement is intended to establish arrangements for coordination and cooperation among the CFPB and the Board of Governors, the OCC, the FDIC, and the National Credit Union Association (NCUA). The agreement strives to minimize unnecessary regulatory burden and to avoid unnecessary duplication of effort and conflicting supervisory directives amongst the prudential regulators and the CFPB. The regulators work cooperatively to share exam schedules for covered institutions and covered activities to plan simultaneous exams, provide final drafts of examination reports for comment, and share supervisory information.

Coordination with Other Federal Banking Agencies

The Board regularly coordinates with other federal banking agencies, including through the development of interagency guidance, to clearly communicate supervisory expectations. The Federal Reserve also works with the other member agencies of the FFIEC to develop consistent examination principles, standards, procedures, and report formats.[12] In addition, the Federal Reserve participates in the Joint Task Force on Fair Lending, composed of all the prudential regulators, the CFPB, the DOJ, the Federal Housing Finance Agency (FHFA), the Federal Trade Commission, and the Department of Housing and Urban Development (HUD). Staff also participate in the Interagency Task Force on Property Appraisal and Valuation Equity, an initiative to address bias in home appraisals. In February 2022, the Board joined the prudential regulators, the CFPB, HUD, the DOJ, and the FHFA, in an interagency statement reminding creditors of the ability under ECOA and its implementing Regulation B to establish special purpose credit programs to meet the credit needs

[10] To access the Board's Orders on Banking Applications, see https://www.federalreserve.gov/newsevents/pressreleases.htm.

[11] For these reports, see https://www.federalreserve.gov/supervisionreg/semiannual-reports-banking-applications-activity.htm.

[12] For more information, see https://www.ffiec.gov/.

Box 6.1. Responsive Guidance, Research, and Engagement for Emerging Financial Conditions

During 2022, advancements in fintech and digital banking continued to transform the financial industry. The Board's Division of Consumer and Community Affairs (DCCA) focused on keeping pace with fintech's rapid growth by continuing initiatives to help banks and consumers navigate an expanding variety of new products and services. As communities continued to cope with the COVID-19 pandemic's aftermath, understanding current economic conditions helped inform these efforts. While DCCA's staff emphasized the importance of risk-mitigation strategies for emerging financial products, its research and policy analysis functions studied how these developments affect financial inclusion and economic recovery.

Advancing Risk Management in a Changing Industry

The Board's supervisory efforts sought to ensure banks effectively manage risks associated with emerging products, including crypto assets.[1] With the Division of Supervision and Regulation, DCCA announced guidance to ensure safe and sound practices for banking organizations engaging in the crypto-asset sector. Issued in August, these guidelines noted potential concerns with crypto assets and outlined a notification system to ensure legal permissibility.[2] The Board also considered cybersecurity concerns for financial institutions, releasing an interagency statement to establish computer-security incident notification requirements for banking organizations and their bank service providers.[3]

In addition to compliance insights, DCCA applied a data analytics lens to risk management in lending. At the 2022 Fair Lending Interagency Webinar, the Board advised on how updated U.S. census tracts affect redlining risk related to lending, assessment areas, branching, and other activities.[4] The event also featured information on how data inform supervisory strategies for appraisal bias and development of special purpose credit programs.[5]

Engaging Consumers and Communities to Inform Policy and Research

The Board examined ways to adapt to a fast-changing financial landscape and leverage expanded use of virtual meeting platforms. In March, the Board and the Office of the Comptroller of the Currency held the first virtual public meeting for a merger and acquisition application, inviting comments evaluating the banks' prospects, the needs of the communities they serve, and other factors.[6] DCCA staff and the Federal Reserve Bank of Cleveland shared insights from this process in the article, "Merger Lessons Learned," for the second 2022 issue of *Consumer Compliance Outlook*.[7] Among considerations facing financial institutions during mergers and acquisitions, this article identified operational challenges in integrating core banking systems and ensuring risk compliance in bank–fintech partnerships.

The Board's research and policy functions assessed the evolving relationship between financial innovation and inclusion. Released in May, the *Economic Well-Being of U.S. Households in 2021* report examined responses to the ninth annual Survey of Household Economics and Decisionmaking (SHED).[8] This SHED survey included questions about the use of cryptocurrencies and "Buy Now, Pay Later" products. Other surveys gathered data to assess how new lending services affect small businesses seeking

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1 See https://www.federalreserve.gov/supervisionreg/caletters/2022.htm for consumer compliance supervisory guidance issued in 2022.

2 See supervision and regulation (SR)/community affairs (CA) letter SR 22-6/CA 22-6, "Engagement in Crypto-Asset-Related Activities by Federal Reserve-Supervised Banking Organizations," https://www.federalreserve.gov/supervisionreg/srletters/SR2206.htm.

3 See SR letter 22-4/CA 22-3, "Contact Information in Relation to Computer-Security Incident Notification Requirements," https://www.federalreserve.gov/supervisionreg/srletters/SR2204.htm.

4 See https://www.consumercomplianceoutlook.org/Outlook-Live/2022/2022-Interagency-Fair-Lending-Webinar/.

5 See CA letter 22-2, "Interagency Statement on Special Purpose Credit Programs Under the Equal Credit Opportunity Act and Regulation B," https://www.federalreserve.gov/supervisionreg/caletters/caltr2202.htm.

6 See https://www.federalreserve.gov/foia/us-bancorp-mufg-union-bank-application-materials.htm.

7 See https://www.consumercomplianceoutlook.org/2022/second-issue/merger-lessons-learned/.

8 See https://www.federalreserve.gov/consumerscommunities/shed.htm.

Box 6.1—*continued*

credit. The Federal Reserve released the report *Clicking for Credit: Experiences of Online Lender Applicants from the Small Business Credit Survey*.[9] Among other findings, this report noted that Black- and Hispanic-owned firms were more likely than White- and Asian-owned firms to apply to online lenders. Online lenders, also referred to as fintech lenders, use data-driven processes and technology for underwriting, pricing, services, and delivering funds to borrowers.

The Board analyzed innovation and credit access through the lens of ongoing economic recovery. Community Advisory Council members provided updates on how low- and moderate-income communities were faring, noting current trends in small business lending, mortgages, and the labor market.[10] In September, the Board's *Fed Listens* session convened leaders from a range of sectors to discuss the challenges and opportunities of transitioning to a post-pandemic economy.[11] The Federal Reserve held the 2022 Community Development Research Seminar Series, Toward an Inclusive Recovery, featuring three sessions focused on the pandemic's implications for wealth, labor, and education among lower-income households. The Board-hosted session explored how pandemic-related disruption in K-12 and higher education, which highlighted how technological access and training support equitable opportunity, could affect workforce development and labor market outcomes.[12]

[9] See https://www.clevelandfed.org/publications/cd-reports/2022/sr-20220816-clicking-for-credit-experiences-of-online-lender-applicants-from-sbcs. To access the Federal Reserve's 2021 Small Business Credit Survey, see https://www.fedsmallbusiness.org/survey.
[10] See https://www.federalreserve.gov/aboutthefed/cac.htm for further information.
[11] See https://www.federalreserve.gov/conferences/fed-listens-transitioning-to-the-post-pandemic-economy.htm.
[12] See https://fedcommunities.org/community-development-research-seminar-series/2022-toward-inclusive-recovery/.

of specified classes of persons.[13] Later in 2022, the Board joined the prudential regulators, the CFPB, and state financial regulators in issuing a statement announcing that they would provide appropriate regulatory assistance to those institutions subject to their supervision that suffered operational impacts from Hurricanes Fiona and Ian, as well as encouraging institutions operating in the affected areas to meet the financial services needs of their communities.[14]

Updating Examination Procedures

In 2022, Board staff worked with other federal banking agencies to develop and revise examination procedures to provide clarity on supervisory expectations regarding consumer compliance.

In December, the Board issued revised examination procedures for use in connection with the Fair Debt Collection Practices Act (FDCPA) to reflect amendments to Regulation F published by the CFPB in 2020 and 2021.[15] These updates addressed communications in connection with debt collection, prohibitions on harassment or abuse, false or misleading representations, and unfair practices in debt collection. They also clarified the information that a debt collector must provide to a consumer at the outset of debt collection communications and addressed consumer protec-

[13] See https://www.federalreserve.gov/supervisionreg/caletters/caltr2202.htm.
[14] See https://www.federalreserve.gov/newsevents/pressreleases/bcreg20220929a.htm.
[15] See https://www.federalreserve.gov/supervisionreg/caletters/caltr2209.htm.

tion concerns related to passive collections and the collection of debt that is beyond the statute of limitations.

Interagency Questions and Answers for Interagency Flood Insurance Proposal

In May, five federal regulatory agencies, including the Board, issued revised Interagency Questions and Answers Regarding Private Flood Insurance.[16] These Interagency Questions and Answers are intended to assist lenders in meeting their responsibilities under the federal flood insurance law and increase public understanding of the agencies' respective flood insurance regulations.[17]

Significant topics addressed by the revisions include guidance related to major amendments to the flood insurance laws regarding the escrow of flood insurance premiums, the detached structure exemption, force placement procedures, and the acceptance of flood insurance policies issued by private insurers.

This issuance consolidated the questions and answers proposed by the agencies in July 2020 and the questions and answers proposed by the agencies in March 2021 into one set of Interagency Questions and Answers Regarding Flood Insurance.

Outreach

The Federal Reserve maintains a comprehensive public outreach program to promote consumer protection, financial inclusion, and community reinvestment. During 2022, the Board continued to enhance its program, delivering timely, relevant compliance information to the banking industry, experienced examiners, and other regulatory personnel.

In 2022, three issues of *Consumer Compliance Outlook* were released, discussing regulatory and supervisory topics of interest to compliance professionals.[18] This publication is distributed to state member banks as well as to bank and savings and loan holding companies supervised by the Federal Reserve, among other subscribers. In addition, the Federal Reserve offered two Outlook Live seminars, the "2022 Fair Lending Interagency Webinar" and the "2022 Interagency Flood Insurance Q&A Webinar."[19] During the Fair Lending Interagency Webinar, the Federal Reserve discussed a report it released publicly that provides information by metropolitan statistical area (MSA) that can help lenders and the public understand the census tract boundary and demo-

[16] The agencies are the Board of Governors of the Federal Reserve System, the Farm Credit Administration, the FDIC, the NCUA, and the OCC.

[17] For more information, see *Federal Register* notice 87 Fed. Reg. 32,826 (May 31, 2022) at https://www.govinfo.gov/content/pkg/FR-2022-05-31/pdf/2022-10414.pdf and the press release at https://www.federalreserve.gov/newsevents/pressreleases/bcreg20220511a.htm.

[18] For more information and to access the publications, see https://consumercomplianceoutlook.org/.

[19] For more information and to access the webinar, see https://www.consumercomplianceoutlook.org/Outlook-Live/2022/2022-Interagency-Flood-Insurance-Q-and-A-Webinar/.

graphic composition changes that result from the 2020 decennial census. These census reports by MSA will help banks assess and manage redlining risk.[20]

Examiner Training

The Federal Reserve's Examiner Training program supports the ongoing professional development of consumer compliance supervisory staff, from an initial introduction to the Federal Reserve System through the development of proficiency in consumer compliance topics sufficient to earn an examiner's commission and beyond. The goal of these efforts is to ensure that examiners have the skills necessary to meet their supervisory responsibilities now and in the future.

Consumer Compliance Examiner Commissioning Program

The Consumer Compliance Examiner Commissioning Program is designed to provide an examiner with (1) a foundation for supervision in the Federal Reserve System and (2) the skills necessary to effectively perform examiner-in-charge responsibilities at a non-complex community bank.[21] On average, examiners progress through a combination of self-paced online learning, classroom offerings, virtual instruction, and on-the-job training over a period of two to three years. Achievement is measured by completing the required course content, demonstrating adequate on-the-job knowledge, and passing a professionally validated proficiency examination.

In 2022, 10 examiners passed the Consumer Compliance Proficiency Examination. The combination of multiple training delivery channels offers learners and Reserve Banks an ability to customize learning and meet training demands more individually and cost effectively.

Continuing Professional Development

In addition to providing core examiner training, continuing, career-long learning is offered. Opportunities for continuing professional development include online learning modules, special projects and assignments, self-study programs, rotational assignments, instruction at System schools, mentoring programs, and the Consumer Compliance Senior Forum held every 18 months. Staff have access to continuing professional development resources on a variety of topics, including learning assets for examiners moving into examiner responsibilities at larger financial institutions and other curated learning content.

In 2022, the System continued to offer Rapid Response sessions to provide timely training to examiners through webinars and case studies on emerging issues or to address urgent training needs that result from, for example, the implementation of new laws or regulations. Four Rapid

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20 To view the webinar and the census reports by MSA, see "Consumer Compliance Outlook Live" at https://consumercomplianceoutlook.org/outlook-live/archives/.

21 An overview of the Federal Reserve System's Examiner Commissioning Program for assistant examiners is set forth in SR letter 17-6/CA 17-1, "Overview of the Federal Reserve's Supervisory Education Programs." See https://www.federalreserve.gov/supervisionreg/srletters/sr1706.htm.

Response sessions with an exclusive consumer compliance focus were designed, developed, and presented to System staff during 2022. An additional 40 Rapid Response sessions were offered that addressed a broader range of supervisory issues, including sessions in which consumer compliance topics were touched upon.

Responding to Consumer Complaints and Inquiries

The Federal Reserve investigates complaints against state member banks and selected nonbank subsidiaries of BHCs (Federal Reserve-regulated entities), and forwards complaints against other creditors and businesses to the agency with relevant authority. Each Reserve Bank investigates complaints against Federal Reserve-regulated entities in its District. The Federal Reserve also responds to consumer inquiries on a broad range of banking topics, including consumer protection questions.

Federal Reserve Consumer Help (FRCH) processes consumer complaints and inquiries centrally. In 2022, FRCH processed 33,513 cases. Of these cases, 19,628 were inquiries and the remainder (13,885) were complaints, with most cases received directly from consumers and involving financial institutions other than state member banks supervised by the Federal Reserve. Approximately 13 percent of cases were referred to the Federal Reserve from other federal and state agencies.

Consumers contacted FRCH by a variety of different channels: 57 percent of the FRCH consumer contacts occurred by telephone, and 40 percent of complaint and inquiry submissions were made electronically (via email, online submissions, and fax). The online form page received 50,122 visits during the year.

Consumer Complaints

Complaints against Federal Reserve-regulated entities totaled 4,853 in 2022. Of the total, 89 percent (4,304) were closed, and 11 percent were still under investigation.

Approximately 3 percent of the closed complaints were pending the receipt of additional information from consumers, referred to another regulatory agency, or withdrawn by the consumer.

Complaints about Products and Practices

During 2022, the Federal Reserve monitored consumer complaints by product and common subjects of complaint (see table 6.1).

The Board also tracked complaints that cite discrimination. Seventeen complaints alleging credit discrimination based on prohibited borrower traits or rights were received in 2022. Eleven discrimination complaints were related to the race, color, national origin, or ethnicity of the applicant or borrower. Three discrimination complaints were related to either the age or sex of the applicant or borrower. The remainder were related to handicap and public assistance income. Of the closed complaints alleging credit discrimination based on a prohibited basis in 2022, there were two with a violation specific to the adverse action notice; however, they were not related to illegal credit discrimination.

In 38 percent of investigated complaints against Federal Reserve-regulated entities, evidence reviewed did not reveal an error or violation. Of the remaining 62 percent of investigated complaints, 15 percent were identified errors that were corrected by the bank; 4 percent were deemed violations of law; and the remainder included matters involving litigation, externally and internally referred complaints, complaints resolved by the bank after the consumer filed the complaint with FRCH, or information was provided to the consumer.

Table 6.1. Complaints against state member banks and selected nonbank subsidiaries of bank holding companies by product and subject of complaint, 2022

Product/subject of complaint	Percent
Deposit/bank products	**43**
Deposit error resolution	24
Funds availability not as expected	21
Fraud/forgery	17
Restricted/blocked accounts	16
Other	22
Credit card accounts	**28**
Fraud/forgery	42
Inaccurate credit reporting	18
Request to validate the debt owed	6
Inability to pay	5
Other	29
Prepaid accounts	**22**
Restricted/blocked accounts	29
Inability to withdraw funds on the card	26
Error resolution	19
Fraud/forgery	7
Other	19
Nondeposit & bank services	**3**
Other products	**2**
Real estate loans	**2**

Note: Other products include commercial products, nondeposit products, vehicle loans, customer service, and bank services. Real estate loans include adjustable-rate mortgages, residential construction loans, open-end home equity lines of credit, home improvement loans, home purchase loans, home refinance/closed-end loans, and reverse mortgages.

Consumer Laws and Regulations

Throughout 2022, the Board continued to administer its regulatory responsibilities with respect to certain entities and specific statutory provisions of the consumer financial services and fair lending laws. This included drafting regulations and issuing compliance guidance for the industry and the Reserve Banks and fulfilling its role in consulting with the CFPB on consumer financial services and fair lending regulations for which the CFPB has rulemaking responsibility.

Outreach

In May, the Board, the FDIC, and the OCC issued an interagency CRA NPR after receiving substantial feedback from stakeholders. In addition to extensive outreach and research, the Board collected public comments on the NPR through August. The Board also participated in an interagency webinar that provided an overview of the CRA proposal and its objectives.[22]

Information and resources about the CRA NPR is available on the Board's website at https://www.federalreserve.gov/consumerscommunities/community-reinvestment-act-proposed-rulemaking.htm.

Updating Annual Indexes for Consumer Regulations

Annual Indexing of Exempt Consumer Credit and Lease Transactions

In October 2022, the Board and the CFPB announced that the dollar thresholds in Regulation Z (Truth in Lending) and Regulation M (Consumer Leasing) that will apply in 2023 for determining exempt consumer credit and lease transactions will increase from $61,000 in 2022 to $66,400 for 2023. These thresholds are set pursuant to statutory changes enacted by the Dodd-Frank Act that require adjusting these thresholds annually based on the annual percentage increase in the Consumer Price Index for Urban Wage Earners and Clerical Workers (CPI-W). Transactions at or below the thresholds are subject to the protections of the regulations.[23]

Annual Indexing of Threshold for Small Loan Exemption from Appraisal Requirements for Higher-Priced Mortgage Loans

In October 2022, the Board, the CFPB, and the OCC announced that the threshold for exempting loans from special appraisal requirements for higher-priced mortgage loans would increase from $28,500 for 2022 to $31,000 for 2023.[24] The Dodd-Frank Act amended TILA to add special appraisal requirements for higher-priced mortgage loans, including a requirement that creditors obtain a written appraisal based on a physical visit to the home's interior before making a higher-priced mortgage loan. The rules implementing these requirements contain an exemption for loans of $25,000 or less and also provide that the exemption threshold will be adjusted annually to reflect increases in the CPI-W.

Annual Adjustment to Community Reinvestment Act Asset-Size Thresholds for Small and Intermediate Small Banks

In December 2022, the Board and the FDIC announced the annual adjustment to the asset-size thresholds used to define *small bank* and *intermediate small bank* under the CRA regulations.[25]

Financial institutions are evaluated under different CRA examination procedures based on their asset-size classification. Those meeting the small and intermediate small bank asset-size thresh-

[22] See https://fedcommunities.org/cra-reform-update-may-2022-video/.
[23] For more information, see https://www.federalreserve.gov/newsevents/pressreleases/bcreg20221013b.htm.
[24] For more information, see https://www.federalreserve.gov/newsevents/pressreleases/bcreg20221013a.htm.
[25] For more information, see https://www.federalreserve.gov/newsevents/pressreleases/bcreg20221219a.htm.

olds are not subject to the reporting requirements applicable to large banks unless they choose to be evaluated as a large bank.

Annual adjustments to these asset-size thresholds are based on the change in the average of the CPI-W, not seasonally adjusted, for each 12-month period ending in November, with rounding to the nearest million.

As a result of the 8.60 percent increase in the CPI-W for the period ending in November 2022, the definitions of small bank and intermediate small bank for CRA examinations were changed as follows:

- *Small bank* means a bank that, as of December 31 of either of the prior two calendar years, had assets of less than $1.503 billion.
- *Intermediate small bank* means a small bank with assets of at least $376 million as of December 31 of both of the prior two calendar years and less than $1.503 billion as of December 31 of either of the prior two calendar years.

These asset-size threshold adjustments took effect on January 1, 2023.

Consumer Research and Analysis of Emerging Issues and Policy

Throughout 2022, the Board analyzed emerging issues in consumer financial services practices in order to understand their implications for the consumer risk analyses and supervisory policies that are core to the Federal Reserve's functions. This research and analysis also provided insight into consumer financial decisionmaking.

Researching Issues Affecting Consumers and Communities

In 2022, the Board explored various issues related to consumers and communities by convening experts, conducting original research, and fielding surveys as part of its continuing commitment to gain insights into consumers' financial and communities' economic development experiences. This work was essential to identifying emerging issues and understanding the progress of economic recovery after the COVID-19 pandemic.

Household Economics and Decisionmaking

The Board conducts regular internet panel surveys to gather data on consumers' experiences and perspectives on various issues of interest through the Survey of Household Economics and Decisionmaking.

The Board first launched the survey in 2013 to better understand consumer decisionmaking in the wake of the Great Recession, with the aim of capturing a snapshot of the financial and economic well-being of U.S. households. In doing so, the SHED collects information on households that is not readily available from other sources or is not available in combination with other variables of interest.

Results of the Board's ninth annual SHED were published in the report *Economic Well-Being of U.S. Households in 2021,* released in May 2022.[26] The survey results reflected the self-reported financial conditions of 11,874 respondents at the end of 2021.

The survey asked respondents about specific aspects of their financial lives, including the following areas:

- employment and informal work
- income and savings
- economic preparedness
- banking and credit
- housing and living arrangements
- K-12 education and higher education
- education debt and student loans
- retirement

The 2021 survey results highlighted the positive effects of the economic recovery on the individual financial circumstances of U.S. families, despite persistent concerns that people expressed about the national economy. In 2021, perceptions about the strength of the national economy declined slightly. Yet self-reported financial well-being increased to the highest rate since the survey began in 2013. The share of prime-age adults not working because they could not find work had returned to pre-pandemic levels. More adults were able to pay all their monthly bills in full than in either 2019 or 2020. Additionally, the share of adults who would pay a $400 emergency expense using cash or its equivalent increased, reaching a new high since the survey began in 2013.

The report also highlights several new topics added to the survey in 2021, such as disruptions from natural disasters, rental debt, and employer vaccine mandates. These new questions provide additional context on the experiences of U.S. adults in handling unexpected expenses, paying for housing, and navigating ongoing changes in the labor market.

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[26] For the report and related data from the Survey of Household Economics and Decisionmaking, see https://www.federalreserve.gov/consumerscommunities/shed.htm.

To better understand consumer experiences with emerging products, cryptocurrencies and "Buy Now, Pay Later" products were included on the survey for the first time. See box 6.1 for more information on the SHED's inclusion of emerging financial products.

Additionally, the report provided insights into long-standing issues related to individuals' personal financial circumstances, including returns to education, housing situations, and retirement savings. In many cases, the survey found that disparities by education, race and ethnicity, and income persisted in 2021.

In addition to fielding and analyzing these surveys, economists in the Division of Consumer and Community Affairs published articles throughout the year in various publications and journals, contributing to a body of research exploring issues impacting consumers and communities.[27]

Community Development Research Seminar Series

In 2022, the Board and the Reserve Banks continued the Federal Reserve System Community Development Research Seminar Series for the second year with the theme, Toward an Inclusive Recovery. This series convenes researchers, policymakers, and practitioners across sectors to consider important issues that low- to moderate-income people and communities face, exploring the latest research to inform effective strategies to advance opportunity for economically vulnerable households and areas.

The seminars featured keynote remarks by Governor Michelle Bowman, Federal Reserve Bank of St. Louis President Jim Bullard, and Federal Reserve Bank of Minneapolis President Neel Kashkari. See box 6.1 for information about the Board's participation in the Community Development Research Seminar Series.

[27] For working papers by Division of Consumer and Community Affairs researchers, see Maureen Cowhey, Seung Jung Lee, Thomas Popeck Spiller, and Cindy M. Vojtech, "Sentiment in Bank Examination Reports and Bank Outcomes," Finance and Economics Discussion Series 2022-077 (Washington: Board of Governors of the Federal Reserve System, November 2022), https://doi.org/10.17016/FEDS.2022.077; Johanna Catherine Maclean, Sebastian Tello-Trillo, and Douglas Webber, "Losing Insurance and Psychiatric Hospitalizations," Finance and Economics Discussion Series 2022-069 (Washington: Board of Governors of the Federal Reserve System, October 2022), https://doi.org/10.17016/FEDS.2022.069; Kenneth P. Brevoort, "Does Giving CRA Credit for Loan Purchases Increase Mortgage Credit in Low-to-Moderate Income Communities?," Finance and Economics Discussion Series 2022-047 (Washington: Board of Governors of the Federal Reserve System, July 2022), https://doi.org/10.17016/FEDS.2022.047; Douglas Webber, "Decomposing Changes in Higher Education Return on Investment Over Time," FEDS Notes (Washington: Board of Governors of the Federal Reserve System, July 13, 2022), https://doi.org/10.17016/2380-7172.3155; Jeff Larrimore, Jacob Mortenson, and David Splinter, "Income Declines During COVID-19," FEDS Notes (Washington: Board of Governors of the Federal Reserve System, July 7, 2022), https://doi.org/10.17016/2380-7172.3063; Jeff Larrimore, Jacob Mortenson, and David Splinter, "Unemployment Insurance in Survey and Administrative Data," FEDS Notes (Washington: Board of Governors of the Federal Reserve System, July 5, 2022), https://doi.org/10.17016/2380-7172.3135; Samuel Dodini, Jeff Larrimore, and Anna Tranfaglia, "Financial Repercussions of SNAP Work Requirements," Finance and Economics Discussion Series 2022-030 (Washington: Board of Governors of the Federal Reserve System, May 2022), https://doi.org/10.17016/FEDS.2022.030; and Avinash Moorthy, Theodore F. Figinski, and Alicia Lloro, "Revisiting the Effect of Education on Later Life Health," Finance and Economics Discussion Series 2022-007 (Washington: Board of Governors of the Federal Reserve System, February 2022), https://doi.org/10.17016/FEDS.2022.007.

Analysis of Emerging Issues

Board staff analyze data and anticipate trends, monitor legislative activity, form working groups, and organize expert roundtables to identify emerging consumer risks and inform supervision, research, and policy.

In 2022, the Board analyzed a broad range of issues in financial services markets that potentially pose risks to consumers. Topics of interest included

- assessing consumer risk during and after the pandemic,
- understanding the effects of inflation on low-income families,
- tracking housing trends, and
- monitoring credit for small businesses.

The Board convened a consumer risk-focused workshop series for staff from the Board, Reserve Banks, and other federal agencies in September. The discussion considered new consumer financial products in the context of product design, consumer risk, financial inclusion, and supervisory insights. In addition, Board subject matter experts examined credit availability for smaller firms that may lack the financing options and in-house resources of larger companies. See box 6.1 for information about small businesses' experiences with online lenders.

Community Development

The Federal Reserve System's community development function promotes economic growth and financial stability for underserved households and communities through research and public outreach. Community development is largely a decentralized function within the Federal Reserve System, and the Community Affairs Officers at each of the 12 Reserve Banks design strategies to respond to the specific needs and interests of community development stakeholders in their respective Districts. Board staff provide oversight for alignment with Board objectives and coordination of System priorities.

Perspectives from Main Street

The community development function works to ensure that the voices of consumers and communities inform policy and research and solicits diverse views on issues affecting the economy and financial markets. These perspectives help improve research, policies, and transparency.

To that end, the Board partnered with the Reserve Banks and seven national partners on the 2022 Perspectives from Main Street survey to better understand the progress of economic recovery after the COVID-19 pandemic. Through a convenience sampling method that relied on contact databases, the online survey compared conditions in low- and moderate-income communities during August 2022 relative to 2021. Announced in November 2022, the findings showed signs of recovery.[28] Of respondents, more than 40 percent expected their communities to be almost or fully recovered by 2023. However, 30 percent of respondents continued to experience significant disruptions, with staff shortages and lack of childcare cited as the main challenges.

Similarly, the Federal Reserve promotes access to credit and financial services for lower-income communities of color by understanding and promoting the viability of minority depository institutions (MDIs). The Board released *Preserving and Promoting Minority Depository Institutions* in September 2022, an annual report informing the public about Federal Reserve research, events, and other initiatives to preserve and support MDIs.[29] During the semiannual Community Advisory Council (CAC) meetings, council members noted the importance of liquidity for MDIs and community development financial institutions. The Council also shared perspectives on local credit and economic conditions in housing, labor markets, and small businesses.[30]

[28] See https://fedcommunities.org/data/main-street-covid19-survey-2022/.
[29] See https://www.federalreserve.gov/publications/files/promoting-minority-depository-institutions-2022.pdf.
[30] Records of the meetings of the CAC are available at https://www.federalreserve.gov/aboutthefed/cac.htm.

Appendixes

A | Federal Reserve System Organization

Congress designed the Federal Reserve System to give it a broad perspective on the economy and on economic activity in all parts of the nation. As such, the System is composed of a central, governmental agency—the Board of Governors—in Washington, D.C., and 12 regional Federal Reserve Banks. This section lists key officials across the System, including the Board of Governors, its officers, Federal Open Market Committee members, several System councils, and Federal Reserve Bank and Branch directors and officers for 2022.

Board of Governors

Members

The Board of Governors of the Federal Reserve System is composed of seven members, who are nominated by the President and confirmed by the Senate. The Chair and the Vice Chair of the Board are also named by the President from among the members and are confirmed by the Senate. This section lists Board members who served in 2022. For a full listing of Board members from 1914 through the present, visit www.federalreserve.gov/aboutthefed/bios/board/boardmembership.htm.

Jerome H. Powell
Chair

Lael Brainard
Vice Chair (as of May 23, 2022)

Richard H. Clarida
Vice Chair (through January 14, 2022)

Michael S. Barr
Vice Chair for Supervision (as of July 19, 2022)

Michelle W. Bowman

Lisa D. Cook (as of May 23, 2022)

Philip N. Jefferson (as of May 23, 2022)

Christopher J. Waller

Divisions and Officers

Fifteen divisions support and carry out the mission of the Board of Governors, which is based in Washington, D.C.

Office of Board Members

Michelle A. Smith
Assistant to the Board and Director

Linda L. Robertson
Assistant to the Board

Lucretia M. Boyer
Assistant to the Board (through October 1, 2022)

Jennifer C. Gallagher
Special Assistant to the Board for Congressional Liaison

Terrence E. Fischer
Special Assistant to Board for Public Information (as of June 19, 2022)

Jon Faust[1]
Senior Special Adviser to the Chair

Joshua H. Gallin[2]
Special Adviser to the Chair

Legal Division

Mark E. Van Der Weide
General Counsel

Jean C. Anderson
Deputy General Counsel

Richard M. Ashton
Deputy General Counsel

Charles C. Gray
Deputy General Counsel

Reena Sahni
Associate General Counsel

Alvin D. Williams
Associate General Counsel

Alicia S. Foster
Deputy Associate General Counsel

Alison M. Thro
Deputy Associate General Counsel

Cary K. Williams
Deputy Associate General Counsel (through March 1, 2022)

Sean D. Croston
Assistant General Counsel (as of June 5, 2022)

Jason A. Gonzalez
Assistant General Counsel

Asad L. Kudiya[3]
Assistant General Counsel

Jay R. Schwartz[4]
Assistant General Counsel

Dafina V. Stewart [5]
Assistant General Counsel (as of January 3, 2022)

Evan H. Winerman
Assistant General Counsel (as of January 16, 2022)

Office of the Secretary

Ann Misback
Secretary of the Board

Margaret M. Shanks
Deputy Secretary

Yao-Chin Chao
Deputy Associate Secretary

Michele T. Fennell
Deputy Associate Secretary

Division of International Finance

Beth Anne Wilson
Director

Shaghil Ahmed
Deputy Director

Stephanie E. Curcuru
Deputy Director

Sally M. Davies
Deputy Director

Brian M. Doyle
Deputy Director

Carol C. Bertaut
Senior Associate Director

James A. Dahl
Senior Associate Director

Paul R. Wood
Senior Associate Director

Matteo Iacoviello
Associate Director

Andrea Raffo
Associate Director (through August 20, 2022)

Jason J. Wu
Associate Director

Daniel Beltran
Deputy Associate Director

Viktors Stebunovs
Deputy Associate Director

1 Jon Faust served as an adviser to Chair Powell in 2022.
2 Joshua H. Gallin served as an adviser to Chair Powell in 2022.
3 Asad L. Kudiya served as an adviser to Governor Waller in 2022.
4 Jay R. Schwartz served as an adviser to Governor Bowman in 2022.
5 Dafina V. Stewart served as an adviser to Governor Jefferson in 2022.

Robert J. Vigfusson
Deputy Associate Director (through February 1, 2022)

Dario Caldara
Assistant Director (as of September 11, 2022)

Andrea De Michelis
Assistant Director

Jasper J. Hoek
Assistant Director

Seung Jung Lee
Assistant Director

Emre Yoldas
Assistant Director

Brett D. Berger
Senior Adviser

Ricardo Correa
Senior Adviser

Martin R. Bodenstein
Adviser (as of September 11, 2022)

Division of Financial Stability

Andreas W. Lehnert
Director

Michael T. Kiley
Deputy Director

William F. Bassett
Senior Associate Director

Elizabeth C. Klee
Senior Associate Director

John W. Schindler
Senior Associate Director

Skander J. Van den Heuvel
Associate Director

Luca Guerrieri
Deputy Associate Director

Namirembe E. Mukasa
Deputy Associate Director and Chief of Staff

Chiara Scotti[6]
Deputy Associate Director

David Arseneau
Assistant Director

Ceyhun Durdu
Assistant Director

Mona T. Elliot
Senior Adviser (through October 22, 2022)

Adele Cecile Morris
Senior Adviser

Andrew M. Cohen
Adviser

Division of Monetary Affairs

Trevor A. Reeve
Director

James A. Clouse
Deputy Director

Rochelle M. Edge
Deputy Director

David H. Bowman
Senior Associate Director

Margaret G. DeBoer
Senior Associate Director

J. David Lopez-Salido
Senior Associate Director

Matthew M. Luecke
Senior Associate Director

Nellisha Ramdass
Senior Associate Director

Min Wei
Senior Associate Director

Eric C. Engstrom[7]
Associate Director

Christopher J. Gust
Associate Director

Karen L. Brooks
Deputy Associate Director

Laura Lipscomb[8]
Deputy Associate Director

Zeynep Senyuz
Deputy Associate Director

Rebecca E. Zarutskie[9]
Deputy Associate Director

Brian Bonis
Assistant Director

Giovanni Favara
Assistant Director

Etienne Gagnon
Assistant Director

Dan Li
Assistant Director

Elizabeth L. Marx
Assistant Director

[6] Chiara Scotti served as an adviser to Governor Jefferson in 2022.
[7] Eric C. Engstrom served as associate director in Research and Statistics and Monetary Affairs.
[8] Laura Lipscomb served as an adviser to Vice Chair for Supervision Barr in 2022.
[9] Rebecca E. Zarutskie served as an adviser to Governor Bowman in 2022.

Andrew C. Meldrum
Assistant Director (as of January 16, 2022)

Antulio Bomfim
Senior Adviser (through September 1, 2022)

Jane E. Ihrig[10]
Senior Adviser

Don H. Kim
Senior Adviser

Edward M. Nelson
Senior Adviser

Robert J. Tetlow
Senior Adviser

Annette Vissing-Jorgensen
Senior Adviser

Mark A. Carlson
Adviser

Division of Research and Statistics

Stacey Tevlin
Director

Jeffrey C. Campione
Deputy Director

Daniel M. Covitz
Deputy Director

William L. Wascher III
Deputy Director

Nicole E. Bennett
Senior Associate Director

Eric M. Engen
Senior Associate Director

Joshua H. Gallin
Senior Associate Director

Diana Hancock
Senior Associate Director

David E. Lebow
Senior Associate Director

Michael G. Palumbo
Senior Associate Director

John J. Stevens
Senior Associate Director

Burcu Duygan-Bump
Associate Director

Eric C. Engstrom
Associate Director

J. Andrew Figura
Associate Director

Glenn R. Follette
Associate Director

Elizabeth K. Kiser
Associate Director

Timothy A. Mullen
Associate Director

Erik A. Heitfield
Deputy Associate Director

Byron F. Lutz
Deputy Associate Director

Patrick E. McCabe
Deputy Associate Director

Raven S. Molloy
Deputy Associate Director

Norman J. Morin
Deputy Associate Director

Karen M. Pence
Deputy Associate Director

Shane M. Sherlund
Deputy Associate Director

Lillian Shewmaker
Deputy Associate Director (through March 1, 2022)

Paul A. Smith
Deputy Associate Director

Deborah M. Flores
Assistant Director

Karen Krugman
Assistant Director

Giovanni G. Amisano
Assistant Director

Shawn M. Bruckner
Assistant Director

Celso Brunetti
Assistant Director

Marco Cagetti
Assistant Director

Paul A. Lengermann
Assistant Director

Geng Li
Assistant Director

Binoy K. Agarwal
Assistant Director and Chief (as of May 22, 2022)

Christopher J. Kurz
Assistant Director and Chief (as of May 22, 2022)

Kevin B. Moore
Assistant Director

Matthias Paustian
Assistant Director

Gustavo Suarez
Assistant Director

Clara Vega[11]
Assistant Director

S. Wayne Passmore
Senior Adviser

Jeremy Rudd
Senior Adviser

Steven A. Sharpe
Senior Adviser

Wendy E. Dunn
Adviser

Charles Fleischman
Adviser

---

[10] Jane E. Ihrig served as an adviser to Governor Waller in 2022.
[11] Clara Vega served as an adviser to Governor Jefferson in 2022.

Division of Supervision and Regulation

Michael S. Gibson
Director

Jennifer J. Burns
Deputy Director

Kate M. Fulton
Deputy Director

Arthur W. Lindo
Deputy Director

Mary L. Aiken
Senior Associate Director

Marta Chaffee
Senior Associate Director

Molly E. Mahar
Senior Associate Director

Richard N. Ragan
Senior Associate Director

Lisa H. Ryu
Senior Associate Director

Thomas R. Sullivan
Senior Associate Director

Todd A. Vermilyea
Senior Associate Director

Kevin M. Bertsch
Associate Director

Nida Davis
Associate Director (through April 1, 2022)

Christopher Finger
Associate Director

Jeffery W. Gunther
Associate Director

Anna L. Hewko
Associate Director

Shannon M. Kelly
Associate Director

Richard A. Naylor II
Associate Director

Uzma Wahhab
Associate Director

John Beebe
Deputy Associate Director

Karen A. Caplan
Deputy Associate Director

James Diggs
Deputy Associate Director

Mona T. Elliot
Deputy Associate Director (through January 15, 2022)

Christine E. Graham[12]
Deputy Associate Director

Constance M. Horsley
Deputy Associate Director (through July 1, 2022)

Kavita Jain
Deputy Associate Director

Kathleen W. Johnson
Deputy Associate Director

Ryan P. Lordos
Deputy Associate Director

Lara K. Lylozian
Deputy Associate Director/
Chief Accountant

David K. Lynch
Deputy Associate Director

Susan E. Motyka
Deputy Associate Director (through September 1, 2022)

T. Kirk Odegard
Deputy Associate Director

Vaishali D. Sack
Deputy Associate Director

Robert F. Sarama[13]
Deputy Associate Director

Steven M. Spurry
Deputy Associate Director

Catherine A. Tilford
Deputy Associate Director

Donna J. Webb
Deputy Associate Director

Suzanne L. Williams
Deputy Associate Director

Kathryn L. Ballintine
Assistant Director (as of October 9, 2022)

Dana L. Burnett
Assistant Director

Anthony B. Cain
Assistant Director

Juan C. Climent[14]
Assistant Director

Keith J. Coughlin
Assistant Director

Eric L. Kennedy
Assistant Director

Elizabeth K. MacDonald
Assistant Director (as of July 3, 2022)

Brent Richards
Assistant Director

April C. Snyder
Assistant Director (as of July 3, 2022)

Emily P. Wells
Assistant Director

Norah M. Barger
Senior Adviser

Fang Du
Adviser

William F. Treacy
Adviser

[12] Christine E. Graham served as an adviser to Vice Chair for Supervision Barr in 2022.
[13] Robert F. Sarama served as an adviser to Governor Waller in 2022.
[14] Juan C. Climent served as an adviser to Governor Jefferson in 2022.

Division of Consumer and Community Affairs

Eric S. Belsky
Director

V. Nicole Bynum
Deputy Director

Anna Alvarez Boyd
Senior Associate Director (through August 1, 2022)

Benjamin K. Olson
Senior Associate Director

Drew D. Kohan
Associate Director (as of June 21, 2022)

Joseph A. Firschein
Associate Director

Phyllis L. Harwell
Associate Director

Marisa A. Reid
Associate Director

David E. Buchholz
Deputy Associate Director

Angelyque Campbell[15]
Assistant Director

Amy B. Henderson
Assistant Director

Minh-Duc T. Le
Assistant Director

Caterina Petrucco-Littleton
Assistant Director

Division of Reserve Bank Operations and Payment Systems

Matthew J. Eichner
Director

Susan V. Foley
Deputy Director

Gregory L. Evans
Senior Associate Director

Jennifer K. Liu
Senior Associate Director

Jennifer A. Lucier
Senior Associate Director

David C. Mills
Senior Associate Director

Lawrence E. Mize
Senior Associate Director (through August 1, 2022)

Brian A. Lawler
Associate Director

Rebecca L. Royer
Associate Director

Stuart E. Sperry
Associate Director

Jeffrey D. Walker
Associate Director

Casey H. Clark
Deputy Associate Director

Sonja R. Danburg
Deputy Associate Director

Jason A. Hinkle
Deputy Associate Director

Mark D. Manuszak
Deputy Associate Director

Mark J. Olechowski
Deputy Associate Director (through July 1, 2022)

Caio P. Peixoto
Deputy Associate Director

Shannon Hulsandra
Assistant Director/Manager (as of April 24, 2022)

Travis D. Nesmith
Assistant Director and Chief

Edward L. Anderson
Assistant Director (as of February 27, 2022)

Emily A. Caron
Assistant Director (as of February 27, 2022)

Ian D. Spear
Assistant Director (as of January 2, 2022)

Nick Trotta
Assistant Director (through July 1, 2022)

Timothy W. Maas
Senior Adviser

[15] Angelyque Campbell served as an adviser to Governor Cook in 2022.

Office of the Chief Operating Officer

Patrick J. McClanahan
Chief Operating Officer

Katherine Tom
Chief Data Officer

Sheila Clark
Chief Diversity Officer

Phillip C. Daher
Associate Director

Andrew Leonard
Associate Director

Division of Financial Management

Ricardo Aguilera
Director and Chief
Financial Officer

Stephen J. Bernard
Deputy Director

Monica Y. Manning
Associate Director

Thomas Murphy
Associate Director

Jeffrey R. Peirce
Associate Director

Karen L. Vassallo
Associate Director

Kimberly Briggs
Deputy Associate Director

Division of Management

Winona Varnon
Director

Curtis B. Eldridge
Senior Associate Director
and Chief, LEU

Kendra Gastright
Senior Associate Director

Tameika L. Pope
Senior Associate Director
and CHCO

Tara Tinsley-Pelitere
Senior Associate Director and CTO

Ann Buckingham
Associate Director

Reginald V. Roach
Associate Director

Donna J. Butler
Deputy Associate Director and
Chief of Staff

Catherine Jack
Deputy Associate Director

Tim Ly
Deputy Associate Director

Timothy E. Markey
Deputy Associate Director

Stephen E. Pearson
Deputy Associate Director

Katherine Perez
Deputy Associate Director
and Assistant Chief, LEU (through
October 1, 2022)

Lewis Andrews
Assistant Director

Stewart A. Carroll
Assistant Director

Leah Middleton
Assistant Director

Division of Information Technology

Sharon L. Mowry
Director

Andrew V. Krug
Deputy Director (as of
August 15, 2022)

Stephen Olden
Deputy Director

Raymond Romero
Deputy Director (through July 1, 2022)

Kofi A. Sapong
Deputy Director

Glenn S. Eskow
Senior Associate Director

Deborah Prespare
Senior Associate Director

Sheryl Lynn Warren
Senior Associate Director

Rajasekhar R. Yelisetty
Senior Associate Director

Charles B. Young
Senior Associate Director

William K. Dennison
Deputy Associate Director

Can Xuan Nguyen
Deputy Associate Director

Jonathan F. Shrier
Deputy Associate Director

Virginia M. Wall
Deputy Associate Director

Edgar Wang
Deputy Associate Director

Ivan K. Wun
Deputy Associate Director

Herman Ip
Assistant Director (as of May 8, 2022)

Amy Kelley
Assistant Director

Brian Lester
Assistant Director

Scott Meyerle
Assistant Director

Nischala N. Nimmakayala
Assistant Director (as of January 31, 2022)

Langston Shaw
Assistant Director

Fred Vu
Assistant Director

Office of Inspector General

Mark Bialek
Inspector General

Fred Gibson
Deputy Inspector General

Cynthia Gray
Deputy Associate Inspector General

Stephen Carroll
Associate Inspector General

Jason A. Derr
Assistant Inspector General (as of October 9, 2022)

Jina Hwang
Assistant Inspector General (as of October 9, 2022)

Peter Sheridan
Associate Inspector General (through August 1, 2022)

Michael VanHuysen
Associate Inspector General

Jacqueline M. Becker
Senior Adviser

Federal Open Market Committee

The Federal Open Market Committee is made up of the seven members of the Board of Governors; the president of the Federal Reserve Bank of New York; and four of the remaining eleven Federal Reserve Bank presidents, who serve one-year terms on a rotating basis. During 2022, the Federal Open Market Committee held eight regularly scheduled meetings (see appendix B, "Minutes of Federal Open Market Committee Meetings").

Members

Jerome H. Powell
Chair, Board of Governors

John C. Williams
Vice Chair, President, Federal Reserve Bank of New York

Michael S. Barr
Member, Board of Governors (as of July 19, 2022)

Michelle W. Bowman
Member, Board of Governors

Lael Brainard
Member, Board of Governors

James Bullard
President, Federal Reserve Bank of St. Louis

Susan M. Collins
President, Federal Reserve Bank of Boston (as of July 1, 2022)

Lisa D. Cook
Member, Board of Governors (as of May 23, 2022)

Esther L. George
President, Federal Reserve Bank of Kansas City

Philip N. Jefferson
Member, Board of Governors (as of May 23, 2022)

Loretta J. Mester
President, Federal Reserve Bank of Cleveland

Christopher J. Waller
Member, Board of Governors

Alternate Members

Meredith Black
Interim President, Federal Reserve Bank of Dallas (through August 21, 2022)

Charles L. Evans
President, Federal Reserve Bank of Chicago

Patrick Harker
President, Federal Reserve Bank of Philadelphia

Naureen Hassan
First Vice President, Federal Reserve Bank of New York (through July 17, 2022)

Lorie K. Logan
President, Federal Reserve Bank of Dallas (as of August 22, 2022)

Neel Kashkari
President, Federal Reserve Bank of Minneapolis

Helen E. Mucciolo
Interim First Vice President, Federal Reserve Bank of New York (as of July 18, 2022)

Officers

James A. Clouse
Secretary

Matthew M. Luecke
Deputy Secretary

Brian J. Bonis
Assistant Secretary

Michelle A. Smith
Assistant Secretary

Mark E. Van Der Weide
General Counsel

Michael Held
Deputy General Counsel (through April 7, 2022)

Richard Ostrander
Deputy General Counsel (as of December 13, 2022)

Richard M. Ashton
Assistant General Counsel

Trevor A. Reeve
Economist

Stacey Tevlin
Economist

Beth Anne Wilson
Economist

Shaghil Ahmed
Associate Economist

Brian M. Doyle
Associate Economist

Carlos Garriga
Associate Economist

Joseph W. Gruber
Associate Economist

Beverly Hirtle
Associate Economist

David E. Lebow
Associate Economist

Ellis W. Tallman
Associate Economist

Geoffrey Tootell
Associate Economist

William L. Wascher
Associate Economist

Lorie K. Logan
Manager, System Open Market Account (through August 21, 2022)

Patricia Zobel
Deputy Manager, System Open Market Account (through August 21, 2022); Manager pro tem, System Open Market Account (as of August 22, 2022)

Board of Governors Advisory Councils

The Federal Reserve Board uses advisory committees in carrying out its varied responsibilities. To learn more, visit https://www.federalreserve.gov/aboutthefed/advisorydefault.htm.

Federal Advisory Council

The Federal Advisory Council—a statutory body established under the Federal Reserve Act—consults with and advises the Board of Governors on all matters within the Board's jurisdiction. It is composed of one representative from each Federal Reserve District, chosen by the Reserve Bank in that District. The president and vice president of the council are selected from amongst council members. The Federal Reserve Act requires the council to meet in Washington, D.C., at least four times a year. In 2022, the council met on February 2–3, May 11–12, September 7–8, and November 30–December 1. The council met with the Board on February 3, May 12, September 8, and December 1, 2022.

Members

District 1

Ronald P. O'Hanley
Chairman and Chief Executive Officer, State Street Corporation, Boston, MA

District 2

Marianne Lakes
Co-CEO of Consumer & Community Banking, JPMorgan Chase & Co., New York, NY

District 3

Jeffrey M. Schweitzer
Chief Executive Officer, Univest Bank and Trust Co., Souderton, PA

District 4

William S. Demchak
Chairman, President, and Chief Executive Officer, PNC Financial Services Group, Pittsburgh, PA

District 5

Brian T. Moynihan
Chairman and Chief Executive Officer, Bank of America, Charlotte, NC

District 6

Rajinder P. Singh
Chairman, President, and Chief Executive Officer, BankUnited, Inc., Miami Lakes, FL

District 7

David R. Casper
Chairman and Chief Executive Officer, BMO Harris Bank, Chicago, IL

District 8

D. Bryan Jordan
President and Chief Executive Officer, First Horizon Corporation, Memphis, TN

District 9

Andrew Cecere
Chairman, President, and Chief Executive Officer, U.S. Bancorp, Minneapolis, MN

District 10

Jill Castilla
President and Chief Executive Officer, Citizens Bank of Edmond, Edmond, OK

District 11

David Zalman
Senior Chairman and Chief Executive Officer, Prosperity Bancshares/Prosperity Bank, El Campo, TX

District 12

Nandita Bakhshi
President and Chief Executive Officer, Bank of the West, San Francisco, CA

Officers

D. Bryan Jordan
President

Herb Taylor
Secretary

Luba Romanyuk
Deputy Secretary

Rajinder P. Singh
Vice President

Community Depository Institutions Advisory Council

The Community Depository Institutions Advisory Council advises the Board of Governors on the economy, lending conditions, and other issues of interest to community depository institutions. Members are selected from among representatives of banks, thrift institutions, and credit unions who are serving on local advisory councils at the 12 Federal Reserve Banks. One member of each of the Reserve Bank councils serves on the Community Depository Institutions Advisory Council. The president and vice president are selected from amongst council members. The council usually meets with the Board twice a year in Washington, D.C. In 2022, the council met on April 7 and November 17.

Members

District 1

Kathryn G. Underwood
Chairman, President, Ledyard National Bank, Hanover, NH

District 2

Faheem A. Masood
President and Chief Executive Officer, ESL Federal Credit Union, Rochester, NY

District 3

Jeane M. Vidoni
President and Chief Executive Officer, Penn Community Bank, Perkasie, PA

District 4

Chuck Sulerzyski
President and Chief Executive Officer, Peoples Bank, Marietta, OH

District 5

Dabney T.P. Gilliam Jr.
President and Chief Executive Officer, The Bank of Charlotte County, Phenix, VA

District 6

David R. Melville III
President and Chief Executive Officer, b1Bank, Baton Rouge, LA

District 7

Kent A. Liechty
President and Chief Executive Officer, First Bank of Berne, Berne, IN

District 8

Marnie Older
Chief Executive Officer and Director, Stone Bank, Little Rock, AR

District 9

Melodie Carlson
Chief Operating Officer, Sunrise Banks, St. Paul, MN

District 10

Kim DeVore
President and Chief Executive Officer, Jonah Bank of Wyoming, Casper, WY

District 11

Tracy Harris
President and Chief Executive Officer, National Bank & Trust, La Grange, TX

District 12

Janet Silveria
President and Chief Executive Officer, Community Bank of Santa Maria, Santa Maria, CA

Officers

David R. Melville, III
President

Jeane M. Vidoni
Vice President

Community Advisory Council

The Community Advisory Council was formed in 2015 to advise the Board of Governors on the economic circumstances and financial services needs of consumers and communities, with a particular focus on the concerns of low- and moderate-income populations. The council is composed of a diverse group of experts and representatives of consumer and community development organizations and interests, including from such fields as affordable housing, community and economic development, employment and labor, financial services and technology, small business, and asset and wealth building. One member of the council serves as its chair. The council first met with the Board in November 2015, and meets with the Board twice each year. In 2022, the council met with the Board on May 19 and October 20.

Members

Ivye Allen
President, Foundation for the Mid South, Jackson MS

Daniel Betancourt
President and CEO, Community First Fund, Lancaster, PA

Dr. Susan Bradbury
Professor, Community and Regional Planning, Iowa State University, Ames, IA

Tawney Brunsch
Executive Director, Lakota Funds, Kyle, SD

Melanie Hogan
Executive Director, Linking Employment, Abilities, and Potential (LEAP), Cleveland, OH

Chan U Lee
President and CEO, Devine & Gong, Inc., Oakland, CA

Darlene Lombos
Executive Secretary-Treasurer, Boston Labor Council, Boston, MA

Stephanie Mackay
Board Member, Switchpoint Community Resource CenterSalt Lake City, UT

Christie McCravy
Executive Director, Louisville Metro Affordable Housing Trust Fund, Louisville, KY

Dr. Laura Murillo
President and CEO, Houston Hispanic Chamber of Commerce, Houston, TX

Ceyl Prinster
President and CEO, Colorado Enterprise Fund, Denver, CO

Eric Robertson
Executive Director, The Formanek Foundation, Memphis, TN

Bill Schlesinger
Co-Director, Project Vida, El Paso, TX

Arjan Schutte
Founder and Managing Partner, Core Innovation Capital, San Francisco, CA

Kendra N. Smith
Vice President, Community Health, Bon Secours Mercy Health, Toledo, OH

Lora Smith
Executive Director, Appalachian Impact Fund, Hazard, KY

Officers

Tawney Brunsch
Chair

Daniel Betancourt
Vice Chair

Model Validation Council

The Model Validation Council was established in 2012 by the Board of Governors to provide expert and independent advice on its process to rigorously assess the models used in stress tests of banking institutions. The Dodd-Frank Wall Street Reform and Consumer Protection Act required the Federal Reserve to conduct annual stress tests of large bank holding companies and systemically important, nonbank financial institutions supervised by the Board. The Model Validation Council provides input on the Board's efforts to assess the effectiveness of the models used in the stress tests. The council is intended to improve the quality of the Federal Reserve's model assessment program and to strengthen the confidence in the integrity and independence of the program.

Members

Andrew Atkeson
Professor, University of California, Los Angeles

George Pennacchi
Professor, University of Illinois, Urbana-Champaign

Andra Ghent
Professor, University of Utah

Victoria Ivashina
Professor, Harvard Business School

Federal Reserve Banks and Branches

To carry out the day-to-day operations of the Federal Reserve System, the nation has been divided into 12 Federal Reserve Districts, each with a Reserve Bank. The majority of Reserve Banks also have at least one Branch.

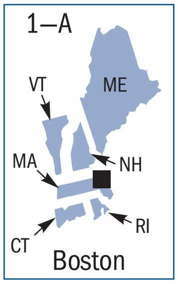
Reserve Bank and Branch Directors

As required by the Federal Reserve Act, each Federal Reserve Bank is supervised by a nine-member board with three different classes of three directors each: Class A directors, who are nominated and elected by the member banks in that District to represent the stockholding banks; Class B directors, who are nominated and elected by the member banks to represent the public; and Class C directors, who are appointed by the Board of Governors to represent the public. Class B and Class C directors are selected with due, but not exclusive, consideration to the interests of agriculture, commerce, industry, services, labor, and consumers. Each Federal Reserve Bank Branch also has a board with either five or seven directors. A majority of the directors on each Branch board are appointed by the Federal Reserve Bank, with the remaining directors appointed by the Board of Governors.

For more information on Reserve Bank and Branch directors, see https://www.federalreserve.gov/aboutthefed/directors/about.htm.

Reserve Bank and Branch directors are listed below. For each director, the class of directorship, the director's principal place of business, and the expiration date of the director's current term are shown. Also shown are maps that identify Federal Reserve Districts by their official number, city, and letter designation. For more information on the Federal Reserve indicator letters, see https://www.uscurrency.gov/denominations/bank-note-identifiers.

District 1–Boston



Covers the states of Maine, Massachusetts, New Hampshire, Rhode Island, and Vermont; and all but Fairfield County in Connecticut.

For more information on this District and to learn more about the Federal Reserve Bank of Boston's operations, visit https://www.bostonfed.org. Information on economic conditions for this District can be found in the Federal Reserve System's Beige Book at https://www.federalreserve.gov/monetarypolicy/beige-book-default.htm. Also find the Reserve Bank's financial statements for 2022 at https://www.federalreserve.gov/aboutthefed/files/bostonfinstmt2022.pdf.

Class A

Bruce Van Saun, 2022
Chairman and Chief Executive Officer, Citizens Financial Group, Stamford, CT

Jeanne A. Hulit, 2023
President and Chief Executive Officer, Maine Community Bank, Biddeford, ME

Sushil K. Tuli, 2024
Chairman and Chief Executive Officer, Leader Bank, N.A., Arlington, MA

Class B

Lizanne Kindler, 2022
Chief Executive Officer, Talbots, Hingham, MA

Kimberly Sherman Stamler, 2023
President, Related Beal, Boston, MA

Lauren A. Smith, 2024
Chief Health Equity and Strategy Officer, CDC Foundation, Boston, MA

Class C

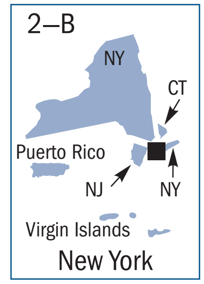
Christina Hull Paxson, 2022
President, Brown University, Providence, RI

Roger W. Crandall, 2023
Chairman, President, and Chief Executive Officer, MassMutual Financial Group, Springfield, MA

Corey Thomas, 2024
Chairman and Chief Executive Officer, Rapid7, LLC, Boston, MA

District 2–New York

Covers the state of New York, Fairfield County in Connecticut, and 12 counties in northern New Jersey, and serves the Commonwealth of Puerto Rico and the U.S. Virgin Islands.



For more information on this District and to learn more about the Federal Reserve Bank of New York's operations, visit https://www.newyorkfed.org/. Information on economic conditions for this District can be found in the Federal Reserve System's Beige Book at https://www.federalreserve.gov/monetarypolicy/beige-book-default.htm. Also find the Reserve Bank's financial statements for 2022 at https://www.federalreserve.gov/aboutthefed/files/newyorkfinstmt2022.pdf.

Class A

Douglas L. Kennedy, 2022
President and Chief Executive Officer, Peapack-Gladstone Bank, Bedminster, NJ

Thomas J. Murphy, 2023
President and Chief Executive Officer, Arrow Financial Corporation, Glens Falls National Bank, Glens Falls, NY

René F. Jones, 2024
Chairman and Chief Executive Officer, M&T Bank Corporation, Buffalo, NY

Class B

Adena T. Friedman, 2022
President and Chief Executive Officer, Nasdaq, New York, NY

Arvind Krishna, 2023
Chairman and Chief Executive Officer, IBM, New York, NY

Scott Rechler, 2024
Chairman and Chief Executive Officer, RXR, New York, NY

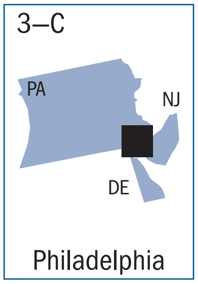
Class C

Denise Scott, 2022
President, Local Initiatives Support Corporation, New York, NY

Rosa Gil, 2023
Founder, President, and Chief Executive Officer, Comunilife, Inc., New York, NY

Vincent Alvarez, 2024
President, New York City Central Labor Council, AFL-CIO, New York, NY

District 3–Philadelphia



Covers the state of Delaware; 9 counties in southern New Jersey; and 48 counties in the eastern two-thirds of Pennsylvania.

For more information on this District and to learn more about the Federal Reserve Bank of Philadelphia's operations, visit https://www.philadelphiafed.org/. Information on economic conditions for this District can be found in the Federal Reserve System's Beige Book at https://www.federalreserve.gov/monetarypolicy/beige-book-default.htm. Also find the Reserve Bank's financial statements for 2022 at https://www.federalreserve.gov/aboutthefed/files/philadelphiafinstmt2022.pdf.

Class A

Christopher D. Maher, 2022
Chairman and Chief Executive Officer, OceanFirst Bank, N.A., Toms River, NJ

Randall E. Black, 2023
Chief Executive Officer and President, Citizens Financial Services Inc. and First Citizen's Community Bank, Mansfield, PA

Timothy Snyder, 2024
President and Chief Executive Officer, Fleetwood Bank, Fleetwood, PA

Class B

John Fry, 2022
President, Drexel University, Philadelphia, PA

Bret S. Perkins, 2023
Senior Vice President, External and Government Affairs, Comcast Corporation, Philadelphia, PA

Julia H. Klein, 2024
Chairwoman and Chief Executive Officer, C. H. Briggs Company, Reading, PA

Class C

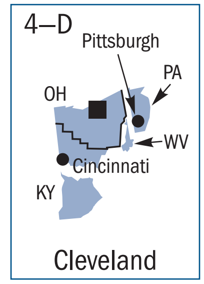
Anthony Ibarguen, 2022
Chief Executive Officer, Quench USA, Inc., King of Prussia, PA

Madeline Bell, 2023
President and Chief Executive Officer, The Children's Hospital of Philadelphia–CHOP, Philadelphia, PA

Sharmain Matlock-Turner, 2024
President and Chief Executive Officer, Urban Affairs Coalition, Philadelphia, PA

District 4–Cleveland

Covers the state of Ohio; 56 counties in eastern Kentucky; 19 counties in western Pennsylvania; and 6 counties in northern West Virginia.



For more information on this District and to learn more about the Federal Reserve Bank of Cleveland's operations, visit https://www.clevelandfed.org/. Information on economic conditions for this District can be found in the Federal Reserve System's Beige Book at https://www.federalreserve.gov/monetarypolicy/beige-book-default.htm. Also find the Reserve Bank's financial statements for 2022 at https://www.federalreserve.gov/aboutthefed/files/clevelandfinstmt2022.pdf.

Class A

Amy G. Brady, 2022
Chief Information Officer and Executive Vice President, KeyBank, Cleveland, OH

Dean J. Miller, 2023
President and Chief Executive Officer, First National Bank of Bellevue, Bellevue, OH

Eddie L. Steiner, 2024
President and Chief Executive Officer, CSB Bancorp, Inc., Millersburg, OH

Class B

David Megenhardt, 2022
Executive Director, United Labor Agency, Cleveland, OH

Heidi L. Gartland, 2023
Chief Government and Community Relations Officer, University Hospitals, Cleveland, OH

Jacqueline Gamblin, 2024
Chief Executive Officer, JYG Innovations, Dayton, OH

Class C

Dwight E. Smith, 2022
President and Chief Executive Officer, Sophisticated Systems, Inc., Columbus, OH

Doris Carson Williams, 2023
President and Chief Executive Officer, African American Chamber of Commerce of Western Pennsylvania, Pittsburgh, PA

Ana G. Rodriguez, 2024
Executive Vice President and Chief People Officer, Monogram Foods, Memphis, TN

Cincinnati Branch

Appointed by the Federal Reserve Bank

Darin C. Hall, 2022
President and Chief Executive Officer, Civitas Development Group, Cincinnati, OH

Alfonso Cornejo, 2023
President, Hispanic Chamber Cincinnati USA, Cincinnati, OH

David C. Evans, 2023
President and Chief Executive Officer, TESSEC LLC, Dayton, OH

Archie M. Brown, 2024
President and Chief Executive Officer, First Financial Bancorp, Cincinnati, OH

Appointed by the Board of Governors

Holly B. Wiedemann, 2022
Founder, AU Associates, Inc., Lexington, KY

Ashish K. Vaidya, 2023
President, Northern Kentucky University, Highland Heights, KY

Rachid Abdallah, 2024
Chairman and Chief Executive Officer, Jedson Engineering, Cincinnati, OH

Pittsburgh Branch

Appointed by the Federal Reserve Bank

Sanjay Chopra, 2022
Co-Founder and Chief Executive Officer, Cognistx, Pittsburgh, PA

Earl Buford, 2023
President, CAEL, Indianapolis, IN

Christina A. Cassotis, 2023
Chief Executive Officer, Allegheny County Airport Authority, Pittsburgh, PA

Nishan J. Vartanian, 2024
President and Chief Executive Officer, MSA Safety Incorporated, Cranberry Township, PA

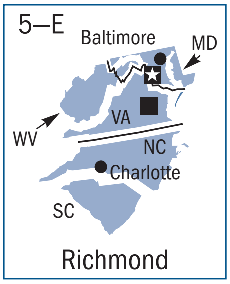
Appointed by the Board of Governors

Kathryn Z. Klaber, 2022
Managing Partner, The Klaber Group, Sewickley, PA

Kathy Wilson Humphrey, 2023
President, Carlow University, Pittsburgh, PA

Vera Krekanova, 2024
Chief Strategy and Research Officer, Allegheny Conference on Community Development, Pittsburgh, PA

District 5–Richmond



Covers the states of Maryland, Virginia, North Carolina, and South Carolina; 49 counties constituting most of West Virginia; and the District of Columbia.

For more information on this District and to learn more about the Federal Reserve Bank of Richmond's operations, visit https://www.richmondfed.org/. Information on economic conditions for this District can be found in the Federal Reserve System's Beige Book at https://www.federalreserve.gov/monetarypolicy/beige-book-default.htm. Also find the Reserve Bank's financial statements for 2022 at https://www.federalreserve.gov/aboutthefed/files/richmondfinstmt2022.pdf.

Class A

William A. Loving Jr., 2022
President and Chief Executive Officer, Pendleton Community Bank, Franklin, WV

Jennifer LaClair, 2023
Chief Financial Officer, Ally Bank, Charlotte, NC

James H. Sills III, 2024
President and Chief Executive Officer, Mechanics and Farmers Bank, Durham, NC

Class B

Wayne A. I. Frederick, MD, 2022

President, Howard University, Washington, DC

Robert M. Blue, 2023
President and Chief Executive Officer, Dominion Energy, Richmond, VA

Nazzic Keene, 2024
Chief Executive Officer, SAIC, Reston, VA

Class C

Jodie McLean, 2022
Chief Executive Officer, EDENS, Washington, DC

Lisa M. Hamilton, 2023
President and Chief Executive Officer, The Annie E. Casey Foundation, Baltimore, MD

Eugene A. Woods, 2024
President and Chief Executive Officer, Atrium Health, Charlotte, NC

Baltimore Branch

Appointed by the Federal Reserve Bank

Cecilia A. Hodges, 2022
Regional President Greater Washington and Virginia, M&T Bank, Falls Church, VA

Brenda Galgano, 2023
Senior Vice President and Chief Financial Officer, Perdue, Salisbury, MD

Tom Geddes, 2024
Partner and Portfolio Manager, Brown Advisory, Baltimore, MD

Mary McDuffie, 2024
President and Chief Executive Officer, Navy Federal Credit Union, Vienna, VA

Appointed by the Board of Governors

William J. McCarthy, 2022
Executive Director, Catholic Charities of Baltimore, Baltimore, MD

Leslie D. Hale, 2023
President and Chief Executive Officer, RLJ Lodging Trust, Bethesda, MD

Brian McLaughlin, 2024
President, Enterprise Community Development Inc., Silver Spring, MD

Charlotte Branch

Appointed by the Federal Reserve Bank

Dionne Nelson, 2022
President and Chief Executive Officer, Laurel Street Residential, Charlotte, NC

Vacancy, 2023

Samuel L. Erwin, 2024
Executive Vice President, First Horizon Bank, Greenville, SC

George Dean Johnson III, 2024
Chief Executive Officer, Johnson Development Associates, Inc., Spartanburg, SC

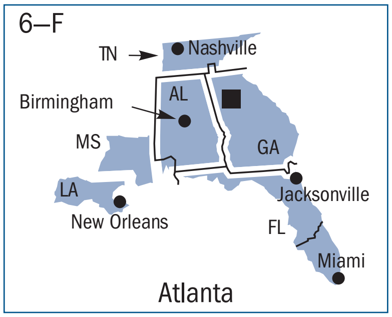
Appointed by the Board of Governors

James F. Goodmon Jr., 2022
President and Chief Operating Officer, Capitol Broadcasting Company, Raleigh, NC

R. Glenn Sherrill Jr., 2023
Chairman and Chief Executive Officer, SteelFab Inc., Charlotte, NC

Bernett William Mazyck, 2024
President and Chief Executive Officer, South Carolina Association for Community Economic Development, Charleston, SC

District 6–Atlanta



Covers the states of Alabama, Florida, and Georgia; 74 counties in the eastern two-thirds of Tennessee; 38 parishes of southern Louisiana; and 43 counties of southern Mississippi.

For more information on this District and to learn more about the Federal Reserve Bank of Atlanta's operations, visit https://www.frbatlanta.org/. Information on economic conditions for this District can be found in the Federal Reserve System's Beige Book at https://www.federalreserve.gov/monetarypolicy/beige-book-default.htm. Also find the Reserve Bank's financial statements for 2022 at https://www.federalreserve.gov/aboutthefed/files/atlantafinstmt2022.pdf.

Class A

Robert W. Dumas, 2022
Chairman, President, and Chief Executive Officer, AuburnBank, Auburn, AL

Kessel D. Stelling Jr., 2023
Executive Chair, Synovus Financial Corporation, Columbus, GA

Abel L. Iglesias, 2024
President and Chief Executive Officer, Professional Holding Corporation and Professional Bank, Coral Gables, FL

Class B

Nicole B. Thomas, 2022
Hospital President, Baptist Medical Center Jacksonville, Jacksonville, FL

John W. Garratt, 2023
President and Chief Financial Officer, Dollar General, Goodlettsville, TN

Michael Russell, 2024
Chief Executive Officer, H.J. Russell and Company, Atlanta, GA

Class C

Elizabeth A. Smith, 2022
Former Executive Chair, Bloomin' Brands, Inc., Tampa, FL

Gregory A. Haile, 2023
President, Broward College, Fort Lauderdale, FL

Claire Lewis Arnold, 2024
Chief Executive Officer, Leapfrog Services, Inc., Atlanta, GA

Birmingham Branch

Appointed by the Federal Reserve Bank

Brian C. Hamilton, 2022
President and Chief Executive Officer, Trillion Communications Corp., Bessemer, AL

Larry D. Thornton Sr., 2023
President and Chief Executive Officer, Thornton Enterprises, Birmingham, AL

Michelle Lewis, 2024
Chief Financial Officer, AAA Cooper Transportation, Dothan, AL

David L. Nast, 2024
President and Chief Executive Officer, Progress Bank, Huntsville, AL

Appointed by the Board of Governors

Merrill H. Stewart Jr., 2022
President, The Stewart/Perry Company, Inc., Birmingham, AL

Maye Head-Frei, 2023
Former Chairman, Ram Tool and Supply Company, Birmingham, AL

Christy Thomas, 2024
Executive Vice President, Compliance, Jemison Metals, Birmingham, AL

Jacksonville Branch

Appointed by the Federal Reserve Bank

Paul G. Boynton, 2022
Former Vice Chairman, Rayonier Advanced Materials, Inc., Jacksonville, FL

William O. West, 2023
Vice Chair, The Bank of Tampa, Tampa, FL

Monesia T. Brown, 2024
Director of Public Affairs and Government Relations, Walmart, Inc., Tallahassee, FL

Brian E. Wolfburg, 2024
President and Chief Executive Officer, VyStar Credit Union, Jacksonville, FL

Appointed by the Board of Governors

Lisa Palmer, 2022
President and Chief Executive Officer, Regency Centers Corporation, Jacksonville, FL

Edward A. Moratin, 2023
President, LIFT Orlando, Orlando, FL

Timothy P. Cost, 2024
President, Jacksonville University, Jacksonville, FL

Miami Branch

Appointed by the Federal Reserve Bank

Eduardo Arriola, 2022
Chairman and Chief Executive Officer, Apollo Bank, Miami, FL

Daniel Lavender, 2023
Chief Executive Officer, Moorings Park Institute, Inc., Naples, FL

N. Maria Menendez, 2023
Chief Financial Officer, GL Homes of Florida Holding, Sunrise, FL

Ginger Martin, 2024
President and Chief Executive Officer, American National Bank, Oakland Park, FL

Appointed by the Board of Governors

Ana M. Menendez, 2022
Chief Financial Officer and Treasurer, Watsco, Inc., Miami, FL

Keith T. Koenig, 2023
Chief Executive Officer, City Furniture, Tamarac, FL

Vacancy, 2024

Nashville Branch

Appointed by the Federal Reserve Bank

Amber W. Krupacs, 2022
Former Chief Financial Officer and Executive Vice President, Clayton Homes, Maryville, TN

Marshall E. Crawford Jr., 2023
President and Chief Executive Officer, The Housing Fund, Inc., Nashville, TN

Amanda Hite, 2024
President, Smith Travel Research, Hendersonville, TN

Leif M. Murphy, 2024
Chief Executive Officer, TeamHealth Holdings, Inc., Knoxville, TN

Appointed by the Board of Governors

Matthew S. Bourlakas, 2022
President and Chief Executive Officer, Goodwill Industries of Middle Tennessee, Inc., Nashville, TN

Amanda Mathis, 2023
Chief Financial Officer, Bridgestone Americas, Inc., Nashville, TN

Thomas Zacharia, 2024
Laboratory Director/ President and Chief Executive Officer, Oak Ridge National Laboratory/ UT-Battelle, LLC, Oak Ridge, TN

New Orleans Branch

Appointed by the Federal Reserve Bank

William J. Bynum, 2022
Chief Executive Officer, Hope Credit Union, Hope Enterprise Corp., and Hope Policy Institute, Jackson, MS

William G. Yates III, 2023
President and Chief Executive Officer, W.G. Yates & Sons Construction Company, Biloxi, MS

Katherine A. Crosby, 2024
Board Chair, Fidelity Bank, New Orleans, LA

David T. Darragh, 2024
Chief Executive Officer, Pod Pack International, Metairie, LA

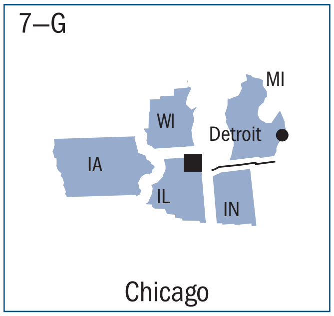
Appointed by the Board of Governors

G. Janelle Frost, 2022
President and Chief Executive Officer, AMERISAFE, Inc., DeRidder, LA

Michael E. Hicks Jr., 2023
President and Chief Executive Officer, Hixardt Technologies, Inc., Pensacola, FL

John C. Driscoll, 2024
Director and Chief Executive Officer, Alabama State Port Authority, Mobile, AL

District 7–Chicago



Covers the state of Iowa; 68 counties of northern Indiana; 50 counties of northern Illinois; 68 counties of southern Michigan; and 46 counties of southern Wisconsin.

For more information on this District and to learn more about the Federal Reserve Bank of Chicago's operations, visit https://www.chicagofed.org/. Information on economic conditions for this District can be found in the Federal Reserve System's Beige Book at https://www.federalreserve.gov/monetarypolicy/beige-book-default.htm. Also find the Reserve Bank's financial statements for 2022 at https://www.federalreserve.gov/aboutthefed/files/chicagofinstmt2022.pdf.

Class A

Susan Whitson, 2022
Chief Executive Officer, First Bank, and President, First of Waverly Corporation, Waverly, IA

Michael O'Grady, 2023
Chairman, President, and Chief Executive Officer, Northern Trust, Chicago, IL

Christopher J. Murphy III, 2024
Chairman and Chief Executive Officer, 1st Source Bank, South Bend, IN

Class B

Linda Jojo, 2022
Executive Vice President, Technology and Chief Digital Officer, United Airlines, Inc., Chicago, IL

David Cyril Habiger, 2023
President and Chief Executive Officer, J.D. Power, Troy, MI

Vacancy, 2024

Class C

Helene D. Gayle, 2022
President and Chief Executive Officer, The Chicago Community Trust, Chicago, IL

Jennifer Scanlon, 2023
President and Chief Executive Officer, UL Inc., Northbrook, IL

Juan Salgado, 2024
Chancellor, City Colleges of Chicago, Chicago, IL

Detroit Branch

Appointed by the Federal Reserve Banks

Ronald E. Hall, 2022
President and Chief Executive Officer, Bridgewater Interiors, LLC, Detroit, MI

Sandy K. Baruah, 2023
President and Chief Executive Officer, Detroit Regional Chamber, Detroit, MI

Kevin Nowlan, 2023
Executive Vice President and Chief Financial Officer, BorgWarner Inc., Auburn Hills, MI

Anika Goss, 2024
Chief Executive Officer, Detroit Future City, Detroit, MI

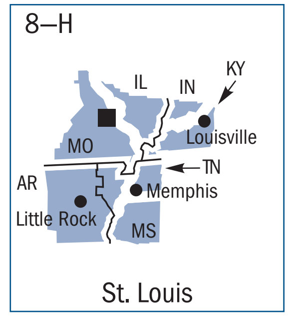
Appointed by the Board of Governors

Linda P. Hubbard, 2022
President and Chief Operating Officer, Carhartt, Inc., Dearborn, MI

M. Roy Wilson., 2023
President, Wayne State University, Detroit, MI

James M. Nicholson, 2024
Co-Chairman, PVS Chemicals, Inc., Detroit, MI

District 8–St. Louis



Covers the state of Arkansas; 44 counties in southern Illinois; 24 counties in southern Indiana; 64 counties in western Kentucky; 39 counties in northern Mississippi; 71 counties in central and eastern Missouri; the city of St. Louis; and 21 counties in western Tennessee.

For more information on this District and to learn more about the Federal Reserve Bank of St. Louis's operations, visit https://www.stlouisfed.org/. Information on economic conditions for this District can be found in the Federal Reserve System's Beige Book at https://www.federalreserve.gov/monetarypolicy/beige-book-default.htm. Also find the Reserve Bank's financial statements for 2022 at https://www.federalreserve.gov/aboutthefed/files/stlouisfinstmt2022.pdf.

Class A

C. Mitchell Waycaster, 2022
President and Chief Executive Officer, Renasant Bank, Tupelo, MS

Elizabeth G. McCoy, 2023
Chief Executive Officer, Planters Bank, Hopkinsville, KY

Misty Borrowman, 2024
President and Chief Executive Officer, Bank of Hillsboro, Hillsboro, IL

Class B

Penelope Pennington, 2022
Managing Partner, Edward Jones, St. Louis, MO

R. Andrew Clyde, 2023
President and Chief Executive Officer, Murphy USA Inc., El Dorado, AR

Michael Ugwueke, 2024
President and Chief Executive Officer, Methodist Le Bonheur Healthcare, Memphis, TN

Class C

Carolyn Chism Hardy, 2022
President and Chief Executive Officer, Chism Hardy Investments, LLC, Collierville, TN

James M. McKelvey Jr., 2023
Founder and Chief Executive Officer, Invisibly, Inc., St. Louis, MO

Lal Karsanbhai, 2024
Chief Executive Officer, Emerson Electric Co., St. Louis, MO

Little Rock Branch

Appointed by the Federal Reserve Bank

Christopher B. Hegi, 2022
Chief Executive Officer, First Financial Bank, El Dorado, AR

Vacancy, 2023

Darrin Williams, 2023
Chief Executive Officer, Southern Bancorp, Inc., Little Rock, AR

Jeff Lynch, 2024
President and Chief Executive Officer, Eagle Bank and Trust, Little Rock, AR

Appointed by the Board of Governors

Millie A. Ward, 2022
President, Stone Ward, Little Rock, AR

Vickie D. Judy, 2023
Chief Financial Officer and Vice President, America's Car-Mart, Inc., Bentonville, AR

Jamie Henry, 2024
Vice President Finance, Emerging Payments, Walmart Inc., Bentonville, AR

Louisville Branch

Appointed by the Federal Reserve Bank

Patrick J. Glotzbach, 2022
Director, New Independent Bancshares, Inc., Charlestown, IN

Tara England Barney, 2023
President and Chief Executive Officer, Southwest Indiana Chamber of Commerce, Evansville, IN

Blake B. Willoughby, 2023
President and Chairman, First Breckinridge Bancshares, Inc., Irvington, KY

Dave W. Christopher, 2024
Founder and Executive Director, AMPED Louisville, Louisville, KY

Appointed by the Board of Governors

David Tatman, 2022
Director of Engineering, Bendix Spicer Foundation Brake, LLC, Bowling Green, KY

Sadiqa N. Reynolds, 2023
President and Chief Executive Officer, Louisville Urban League, Louisville, KY

Emerson M. Goodwin, 2024
Senior Vice President of Business Development, ARcare d/b/a KentuckyCare, Paducah, KY

Memphis Branch

Appointed by the Federal Reserve Bank

R. Davy Carter, 2022
Regional President, Home BancShares, Inc., Jonesboro, AR

Jeff Agee, 2023
Chairman and Chief Executive Officer, First Citizens National Bank, Dyersburg, TN

Henry N. Reichle Jr., 2023
President and Chief Executive Officer, Staplcotn, Greenwood, MS

Tyrone Burroughs, 2024
President and Chief Executive Officer, First Choice Sales and Marketing Group Inc., Memphis, TN

Appointed by the Board of Governors

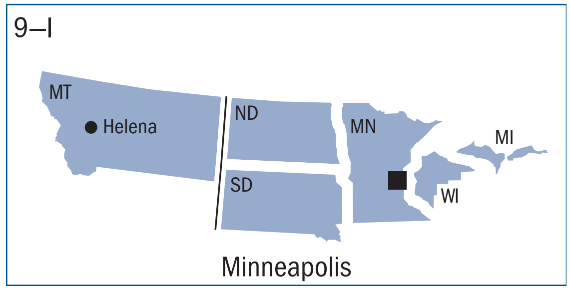
Katherine Buckman Gibson, 2022
Chief Executive Officer, KBG Technologies, LLC, Memphis, TN

Beverly Crossen, 2023
Owner, Farmhouse Tupelo, Tupelo, MS

Tracy D. Hall, 2024
President, Southwest Tennessee Community College, Memphis, TN

District 9–Minneapolis

Covers the states of Minnesota, Montana, North Dakota, and South Dakota; the Upper Peninsula of Michigan; and 26 counties in northern Wisconsin.



For more information on this District and to learn more about the Federal Reserve Bank of Minneapolis's operations, visit https://www.minneapolisfed.org/. Information on economic conditions for this District can be found in the Federal Reserve System's Beige Book at https://www.federalreserve.gov/monetarypolicy/beige-book-default.htm. Also find the Reserve Bank's financial statements for 2022 at https://www.federalreserve.gov/aboutthefed/files/minneapolisfinstmt2022.pdf.

Class A

Brenda K. Foster, 2022
Chairman, President, and Chief Executive Officer, First Western Bank and Trust, Minot, ND

Gerald H. Jacobson, 2023
President, Northwestern Bank, Chippewa Falls, WI

Jeanne H. Crain, 2024
President and Chief Executive Officer, Bremer Financial Corporation, St. Paul, MN

Class B

David R. Emery, 2022
Executive Chairman, Retired, Black Hills Corporation, Rapid City, SD

Vacancy, 2023

Sarah Walsh, 2024
Chief Operating Officer, PayneWest Insurance, Helena, MT

Class C

Christopher M. Hilger, 2022
Chairman, President, and Chief Executive Officer, Securian Financial, St. Paul, MN

Srilata Zaheer, 2023
Dean, Carlson School of Management, University of Minnesota, Minneapolis, MN

Paul D. Williams, 2024
President and Chief Executive Officer, Project for Pride in Living, Minneapolis, MN

Helena Branch

Appointed by the Federal Reserve Bank

Mary Rutherford, 2022
President and Chief Executive Officer, Montana Community Foundation, Helena, MT

William E. Coffee, 2023
Chief Executive Officer and Chairman of the Board, Stockman Financial Corporation, Billings, MT

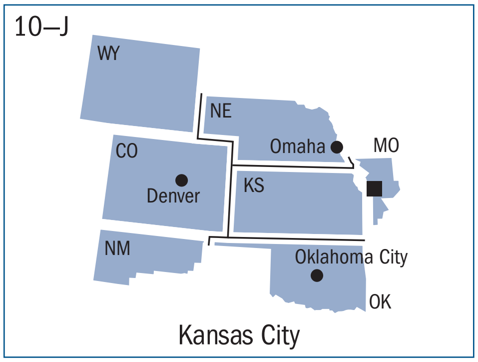
Jason Adams, 2024
Owner and Consultant, Ace Housing and Development, LLC, Polson, MT

Appointed by the Board of Governors

Alan D. Ekblad, 2023
Senior and Managing Partner, Strategic Labor Partnerships, Helena, MT

Bobbi Wolstein, 2024
Chief Financial Officer, LHC, Inc., Kalispell, MT

District 10–Kansas City



Covers the states of Colorado, Kansas, Nebraska, Oklahoma, and Wyoming; 43 counties in western Missouri; and 14 counties in northern New Mexico.

For more information on this District and to learn more about the Federal Reserve Bank of Kansas City's operations, visit https://www.kansascityfed.org/. Information on economic conditions for this District can be found in the Federal Reserve System's Beige Book at https://www.federalreserve.gov/monetarypolicy/beige-book-default.htm. Also find the Reserve Bank's financial statements for 2022 at https://www.federalreserve.gov/aboutthefed/files/kansascityfinstmt2022.pdf.

Class A

Gregory Hohl, 2022
Chairman and President, Wahoo State Bank, Wahoo, NE

Patricia J. Minard, 2023
Executive Vice President and Chief Financial Officer, Emprise Bank, Wichita, KS

Kyle Heckman, 2024
Chairman, President, and Chief Executive Officer, Flatirons Bank, Boulder, CO

Class B

Douglas J. Stussi, 2022
Executive Adviser, Love Family of Companies, Oklahoma City, OK

Ruben Alonso III, 2023
Chief Executive Officer, AltCap, Kansas City, MO

Vacancy, 2024

Class C

Patrick A. Dujakovich, 2022
President, Greater Kansas City AFL-CIO, Kansas City, MO

Maria Griego-Raby, 2023
President and Principal, Contract Associates, Albuquerque, NM

Edmond Johnson, 2024
President and Chief Executive Officer, Premier Manufacturing, Inc. and eNFUSION, Frederick, CO

Denver Branch

Appointed by the Federal Reserve Bank

Jeffrey C. Wallace, 2022
Chief Executive Officer, Wyoming Bank & Trust, Cheyenne, WY

Rachel Gerlach, 2023
Chief Credit Officer, Alpine Bank, Glenwood Springs, CO

Nicole Glaros, 2024
Founder and Chief Executive Officer, Phos, Boulder, CO

Chris Wright, 2024
Chief Executive Officer, Liberty Oilfield Services, Denver, CO

Appointed by the Board of Governors

Jandel Allen-Davis, MD, 2022
Chief Executive Officer and President, Craig Hospital, Englewood, CO

Navin Dimond, 2023
Chief Executive Officer and Chairman, Stonebridge Companies, Denver, CO

Janice J. Lucero, 2024
President and Chief Executive Officer, Motor Vehicle Division Express, Albuquerque, NM

Oklahoma City Branch

Appointed by the Federal Reserve Bank

Susan Chapman Plumb, 2022
Board Chair and Chief Executive Officer, Bank of Cherokee County, Tahlequah, OK

Christopher C. Turner, 2022
Chief Operating Officer and Executive Vice President, The First National Bank & Trust, Oklahoma City, OK

Brady Sidwell, 2023
Owner and Principal, Sidwell Strategies, LLC, Enid, OK

J. Walter Duncan IV, 2024
President, Duncan Oil Properties, Inc., Oklahoma City, OK

Appointed by the Board of Governors

Dana S. Weber, 2022
Chief Executive Officer and Chairman of the Board, Webco Industries, Inc., Sand Springs, OK

Katrina Washington, 2023
Owner, Stratos Realty Group, Oklahoma City, OK

Rhonda Hooper, 2024
President and Chief Executive Officer, Jordan Advertising, Oklahoma City, OK

Omaha Branch

Appointed by the Federal Reserve Bank

Annette Hamilton, 2022
Chief Operating Officer, Ho-Chunk, Inc., Winnebago, NE

Dwayne W. Sieck, 2023
Managing Principal, Farnam Street Real Estate Capital, Omaha, NE

Zac Karpf, 2024
President, Platte Valley Bank, Scottsbluff, NE

Susan L. Martin, 2024
President and Secretary-Treasurer, Nebraska State AFL-CIO, Lincoln, NE

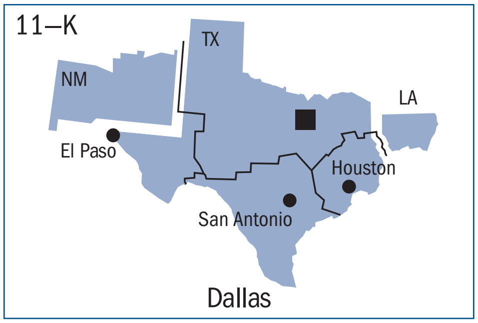
Appointed by the Board of Governors

L. Javier Fernandez, 2022
President and Chief Executive Officer, Omaha Public Power District, Omaha, NE

Carmen Tapio, 2023
Owner, President, and Chief Executive Officer, North End Teleservices, LLC, Omaha, NE

Paul Maass, 2024
Chief Executive Officer, Scoular, Omaha, NE

District 11–Dallas



Covers the state of Texas; 26 parishes in northern Louisiana; and 18 counties in southern New Mexico.

For more information on this District and to learn more about the Federal Reserve Bank of Dallas's operations, visit https://www.dallasfed.org. Information on economic conditions for this District can be found in the Federal Reserve System's Beige Book at https://www.federalreserve.gov/monetarypolicy/beige-book-default.htm. Also find the Reserve Bank's financial statements for 2022 at https://www.federalreserve.gov/aboutthefed/files/dallasfinstmt2022.pdf.

Class A

Joe Quiroga, 2022
President, Texas National Bank, Edinburg, TX

Robert A. Hulsey, 2023
President and Chief Executive Officer, American National Bank of Texas, Terrell, TX

Kelly A. Barclay, 2024
President and Chief Executive Officer, Ozona Bank, Wimberly, TX

Class B

Cynthia Taylor, 2022
President and Chief Executive Officer, Oil States International Inc., Houston, TX

Gerald B. Smith, 2023
Chairman and Chief Executive Officer, Smith, Graham & Company Investment Advisors, L.P., Houston, TX

Renard U. Johnson, 2024
President and Chief Executive Officer, Management & Engineering Technologies International, Inc., El Paso, TX

Class C

Thomas J. Falk, 2022
Retired Chairman and Chief Executive Officer, Kimberly-Clark Corporation, Dallas, TX

Claudia Aguirre, 2023
President and Chief Executive Officer, BakerRipley, Houston, TX

Cindy Ramos-Davidson, 2024
Chief Executive Officer, El Paso Hispanic Chamber of Commerce, El Paso, TX

El Paso Branch

Appointed by the Federal Reserve Bank

Von C. Washington Sr., 2022
President, IDA Technology, El Paso, TX

Jack Harper, 2023
Permian President, ConocoPhillips, Midland, TX

Jill Gutierrez, 2023
Director, Bank 34, Alamogordo, NM

William Serrata, 2024
President, El Paso Community College, El Paso, TX

Appointed by the Board of Governors

Julio Chiu, 2022
Founder and Chief Executive Officer, Seisa Group, El Paso, TX

Sally A. Hurt-Deitch, 2023
Senior Vice President of Operations, Ascension, El Paso, TX

Tracy J. Yellen, 2024
Chief Executive Officer, Paso del Norte Community Foundation and Paso Del Norte Health Foundation, El Paso, TX

Houston Branch

Appointed by the Federal Reserve Bank

Gary R. Petersen, 2022
Managing Partner and Founder, EnCap Investments L.P., Houston, TX

Gina Luna, 2023
Chief Executive Officer, Luna Strategies, LLC, Houston, TX

Bhavesh V. Patel, 2023
Chief Executive Officer, LyondellBasell Industries, Houston, TX

Peter Rodriguez, 2024
Dean and Professor of Strategic Management, Rice University, Houston, TX

Appointed by the Board of Governors

Darryl L. Wilson, 2022
President and Founder, The Wilson Collective, Houston, TX

Ruth J. Simmons, 2023
President, Prairie View A&M University, Prairie View, TX

Cynthia N. Colbert, 2024
President and Chief Executive Officer, Catholic Charities Archdiocese of Galveston-Houston, Houston, TX

San Antonio Branch

Appointed by the Federal Reserve Bank

Charles E. Amato, 2022
Chairman and Co-Founder, Southwest Business Corp., San Antonio, TX

Bradley Barron, 2023
President and Chief Executive Officer, NuStar Energy, San Antonio, TX

Tyson Tuttle, 2023
President and Chief Executive Officer, Silicon Labs, Austin, TX

Gabriel Guerra, 2024
President and Chief Executive Officer, Kleberg Bank, Kingsville, TX

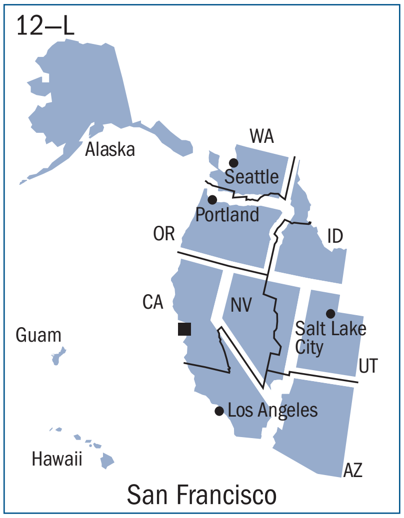
Appointed by the Board of Governors

Denise M. Trauth, 2022
President, Texas State University, San Marcos, TX

Veronica Muzquiz Edwards, 2023
Chief Executive Officer, InGenesis, Inc., San Antonio, TX

Monica Salinas, 2024
Chief Executive Officer Operations, Cromex Forwarding Inc., Laredo, TX

District 12–San Francisco



Covers the states of Alaska, Arizona, California, Hawaii, Idaho, Nevada, Oregon, Utah, and Washington, and serves American Samoa, Guam, and the Commonwealth of the Northern Mariana Islands.

For more information on this District and to learn more about the Federal Reserve Bank of San Francisco's operations, visit http://www.frbsf.org/. Information on economic conditions for this District can be found in the Federal Reserve System's Beige Book at https://www.federalreserve.gov/monetarypolicy/beige-book-default.htm. Also find the Reserve Bank's financial statements for 2022 at https://www.federalreserve.gov/aboutthefed/files/sanfranciscofinstmt2022.pdf.

Class A

Simone Lagomarsino, 2022
President and Chief Executive Officer, Luther Burbank Savings & Luther Burbank Corporation, Gardena, CA

S. Randolph Compton, 2023
Co-Chair of the Board, Pioneer Trust Bank, N.A., Salem, OR

Greg Becker, 2024
President and Chief Executive Officer, SVB Financial Group, Chief Executive Officer, Silicon Valley Bank, Santa Clara, CA

Class B

Sanford L. Michelman, 2022
Chairman, Michelman & Robinson, LLP, Los Angeles, CA

Karen Lee, 2023
Chief Executive Officer, Plymouth Housing, Seattle, WA

Arthur F. Oppenheimer, 2024
Chairman and Chief Executive Officer, Oppenheimer Companies, Inc., President, Oppenheimer Development Corporation, Boise, ID

Class C

Mario Cordero, 2022
Executive Director, Port of Long Beach, Long Beach, CA

Tamara L. Lundgren, 2023
Chairman, President, and Chief Executive Officer, Schnitzer Steel Industries, Inc., Portland, OR

David P. White, 2024
Immediate Past Chief Executive Officer, Chief Negotiator and Strategic Advisor, SAG-AFTRA, Los Angeles, CA, and Venture Partner, Ulu Ventures, Palo Alto, CA

Los Angeles Branch

Appointed by the Federal Reserve Bank

Wayne Bradshaw, 2022
Chairman, Broadway Financial Corporation, Los Angeles, CA

Theresa Benelli, 2023
Executive Director, LISC Phoenix, Phoenix, AZ

Jimmy Ayala, 2024
Division President, Tri Pointe Homes Incorporated, San Diego, CA

Maritza Diaz, 2024
Chief Executive Officer, iTjuana, San Marcos, CA

Appointed by the Board of Governors

Rosemary Vassiliadis, 2022
Director of Aviation, Harry Reid International Airport, Las Vegas, NV

Carl J.P. Chang, 2023
Chief Executive Officer, Kairos Investment Management Company, Chairman of the Board, Pieology Pizzeria, Rancho Santa Margarita, CA

Jack Sinclair, 2024
Chief Executive Officer, Sprouts Farmers Market, Phoenix, AZ

Portland Branch

Appointed by the Federal Reserve Bank

Maria Pope, 2022
President and Chief Executive Officer, Portland General Electric Company, Portland, OR

Cheryl R. Nester Wolfe, 2023
President and Chief Executive Officer, Salem Health Hospital and Clinics, Salem, OR

Vacancy, 2023

Stacey M.L. Dodson, 2024
Market President, Portland and Southwest Washington, U.S. Bank, Portland, OR

Appointed by the Board of Governors

Anne C. Kubisch, 2022
President and Chief Executive Officer, The Ford Family Foundation, Roseburg, OR

Graciela Gomez-Cowger, 2023
Chief Executive Officer, Schwabe, Williamson & Wyatt, Portland, OR

Gale Castillo, 2024
President, Cascade Centers, Inc., Portland, OR

Salt Lake City Branch

Appointed by the Federal Reserve Bank

Deneece Huftalin, 2022
President, Salt Lake Community College, Tayorsville, UT

Jas Krdzalic, 2023
Executive Chairman, Bodybuilding.com and Vitalize LLC, Boise, ID

Mark Packard, 2023
President and Chief Executive Officer, Central Bank, Provo, UT

Lisa Ann Grow, 2024
President and Chief Executive Officer, IdaCorp & Idaho Power, Boise, ID

Appointed by the Board of Governors

Russell A. Childs, 2022
Chief Executive Officer and President, SkyWest, Inc., St. George, UT

Susan D. Morris, 2023
Executive Vice President and Chief Operations Officer, Albertsons Companies, Boise, ID

O. Randall Woodbury, 2024
President and Chief Executive Officer, Woodbury Corporation, Salt Lake City, UT

Seattle Branch

Appointed by the Federal Reserve Bank

Robert C. Donegan, 2022
President, Ivar's Inc., Seattle, WA

Carol Gore, 2023
President and Chief Executive Officer, Cook Inlet Housing Authority, Anchorage, AK

Laura Lee Stewart, 2023
President and Chief Executive Officer, Sound Community Bank and Sound Financial Bancorporation, Seattle, WA

Michael S. Senske, 2024
President and Chief Executive Officer, Pearson Packaging Systems, Spokane, WA

Appointed by the Board of Governors

Sheila Edwards Lange, 2022
Chancellor, University of Washington, Tacoma, WA

John Wolfe, 2023
Chief Executive Officer, Northwest Seaport Alliance, Tacoma, WA

Pallavi Mehta Wahi, 2024
Seattle Managing Partner and Co-United States Managing Partner, K&L Gates LLP, Seattle, WA

Reserve Bank and Branch Leadership

Each year, the Board of Governors designates one Class C director to serve as chair, and one Class C director to serve as deputy chair, of each Reserve Bank board. Reserve Banks also have a president and first vice president who are appointed by the Bank's Class C, and certain Class B, directors, subject to approval by the Board of Governors. Each Reserve Bank selects a chair for every Branch in its District from among the directors on the Branch board who were appointed by the Board of Governors. For each Branch, an officer from its Reserve Bank is also charged with the oversight of Branch operations.

Boston

Christina Hull Paxson, Chair

Corey Thomas, Deputy Chair

Susan M. Collins, President and Chief Executive Officer

Kenneth C. Montgomery, First Vice President and Chief Operating Officer

New York

Denise Scott, Chair

Rosa Gil, Deputy Chair

John C. Williams, President and Chief Executive Officer

Helen Mucciolo, First Vice President and Chief Operating Officer

Additional office at East Rutherford, NJ

Philadelphia

Madeline Bell, Chair

Anthony Ibarguen, Deputy Chair

Patrick T. Harker, President and Chief Executive Officer

James D. Narron, First Vice President and Chief Operating Officer

Cleveland

Dwight E. Smith, Chair

Doris Carson Williams, Deputy Chair

Loretta J. Mester, President and Chief Executive Officer

Mark S. Meder, First Vice President and Chief Operating Officer

Cincinnati

Rachid Abdallah, Chair

Rick Kaglic, Vice President and Senior Regional Officer

Pittsburgh

Vera Krekanova, Chair

Mekael Teshome, Vice President and Senior Regional Officer

Richmond

Eugene A. Woods, Chair

Jodie McLean, Deputy Chair

Thomas I. Barkin, President and Chief Executive Officer

Becky Bareford, First Vice President and Chief Operating Officer

Baltimore

William J. McCarthy, Chair

Andy Bauer, Vice President and Baltimore Regional Executive

Charlotte

R. Glenn Sherrill Jr, Chair

Matthew A. Martin, Vice President and Charlotte Regional Executive

Atlanta

Elizabeth A. Smith, Chair

Claire Lewis Arnold, Deputy Chair

Raphael W. Bostic, President and Chief Executive Officer

André Anderson, First Vice President and Chief Operating Officer

Birmingham

Christy Thomas, Chair

Anoop Mishra, Vice President and Regional Executive

Jacksonville

Edward A. Moratin, Chair

Christopher L. Oakley, Vice President and Regional Executive

Miami

Ana M. Menendez, Chair

Shari Bower, Vice President and Regional Executive

Nashville

Thomas Zacharia, Chair

Laurel Graefe, Vice President and Regional Executive

New Orleans

G. Janelle Frost, Chair

Adrienne C. Slack, Vice President and Regional Executive

Chicago

Helene D. Gayle, MD, Chair

Jennifer Scanlon, Deputy Chair

Charles L. Evans, President and Chief Executive Officer

Ellen Bromagen, First Vice President and Chief Operating Officer

Additional office at Des Moines, IA

Detroit

Linda P. Hubbard, Chair

Rick Mattoon, Vice President and Regional Executive

St. Louis

James M. McKelvey Jr., Chair

Carolyn Chism Hardy, Deputy Chair

James B. Bullard, President and Chief Executive Officer

Kathy O. Paese, First Vice President and Chief Operating Officer

Little Rock

Millie A. Ward, Chair

Matuschka Lindo Briggs, Senior Vice President and Regional Executive

Louisville

Emerson M. Goodwin, Chair

Seema Sheth, Senior Vice President and Regional Executive

Memphis

Katherine Buckman Gibson, Chair

Douglas G. Scarboro, Senior Vice President and Regional Executive

Minneapolis

Srilata Zaheer, Chair

Chris Hilger, Deputy Chair

Neel Kashkari, President and Chief Executive Officer

Ron J. Feldman, First Vice President

Helena

Bobbi Wolstein, Chair

Kansas City

Edmond Johnson, Chair

Patrick A. Dujakovich, Deputy Chair

Esther L. George, President and Chief Executive Officer

Kelly J. Dubbert, First Vice President and Chief Operating Officer

Denver

Navin Dimond, Chair

Nicholas Sly, Assistant Vice President and Branch Executive

Oklahoma City

Katrina Washington, Chair

Chad R. Wilkerson, Senior Vice President and Branch Executive

Omaha

L. Javier Fernandez, Chair

Nathan Kauffman, Senior Vice President and Branch Executive

Dallas

Thomas J. Falk, Chair

Claudia Aguirre, Deputy Chair

Lorie K. Logan, President and Chief Executive Officer

Robert L. Triplett, III, First Vice President and Chief Operating Officer

El Paso

Julio Chiu, Chair

Roberto A. Coronado, Senior Vice President in Charge

Houston

Darryl L. Wilson, Chair

Daron D. Peschel, Senior Vice President in Charge

San Antonio

Denise M. Trauth, Chair

Roberto A. Coronado, Senior Vice President in Charge

San Francisco

Tamara L. Lundgren, Chair

David P. White, Deputy Chair

Mary C. Daly, President and Chief Executive Officer

Sarah Devany, First Vice President and Chief Operating Officer

Additional office at Phoenix, AZ

Los Angeles

Carl J.P. Chang, Chair

Qiana Charles, Vice President and Regional Executive

Portland

Anne C. Kubisch, Chair

Ian Galloway, Vice President and Regional Executive

Salt Lake City

O. Randall Woodbury, Chair

Becky B. Potts, Vice President and Regional Executive

Seattle

Sheila Edwards Lange, Chair

Darlene Wilczynski, Vice President and Regional Executive

Leadership Conferences

Conference of Chairs

The chairs of the Federal Reserve Banks are organized into the Conference of Chairs, which meets to consider matters of common interest and to consult with and advise the Board of Governors. Such meetings, also attended by the deputy chairs, were held in Washington, D.C., on May 17 and 18, 2022, and November 9 and 10, 2022. The conference's executive committee members for 2022 are listed below.[16]

Conference of Chairs Executive Committee—2022

Elizabeth A. Smith, Chair, Federal Reserve Bank of Atlanta

Eugene A. Woods, Vice Chair, Federal Reserve Bank of Richmond

Helene D. Gayle, MD, Member, Federal Reserve Bank of Chicago

Conference of Presidents

The presidents of the Federal Reserve Banks are organized into the Conference of Presidents, which meets periodically to identify, define, and deliberate issues of strategic significance to the Federal Reserve System; to consider matters of common interest; and to consult with and advise the Board of Governors. The chief executive officer of each Reserve Bank was originally labeled governor and did not receive the title of president until the passage of the Banking Act of 1935. Consequently, when the Conference was first established in 1914 it was known as the Conference of Governors. Conference officers for 2022 are listed below.

Conference of Presidents—2022

James B. Bullard, Chair, Federal Reserve Bank of St. Louis

John C. Williams, Vice Chair, Federal Reserve Bank of New York

Douglas Scarboro, Secretary, Federal Reserve Bank of St. Louis

Heidy Medina, Assistant Secretary, Federal Reserve Bank of New York

[16] On November 10, 2022, the Conference of Chairs elected Tamara Lundgren, chair of the Federal Reserve Bank of San Francisco, as chair of the conference's executive committee for 2023. The conference also elected Corey Thomas, deputy chair of the Federal Reserve Bank of Boston, as vice chair, and Patrick Dujakovich, deputy chair of the Federal Reserve Bank of Kansas City, as the executive committee's third member.

Conference of First Vice Presidents

The Conference of First Vice Presidents of the Federal Reserve Banks was organized in 1969 to meet periodically for the consideration of operations and other matters. Conference officers for 2022 are listed below.[17]

Conference of First Vice Presidents—2022

James Narron, Chair,
Federal Reserve Bank of Philadelphia

Ron Feldman, Vice Chair,
Federal Reserve Bank of Minneapolis

Josh Silverstein, Secretary,
Federal Reserve Bank of Philadelphia

Jamica Quillin, Assistant Secretary, Federal Reserve Bank of Minneapolis

[17] On November 16, 2022, the conference elected Ron Feldman, Federal Reserve Bank of Minneapolis, as chair for 2023 and Becky Bareford, Federal Reserve Bank of Richmond, as vice chair. The conference also elected Jamica Quillin, Federal Reserve Bank of Minneapolis, as secretary and Nina Mantilla, Federal Reserve Bank of Richmond, as assistant secretary.

B | Minutes of Federal Open Market Committee Meetings

The policy actions of the Federal Open Market Committee, recorded in the minutes of its meetings, are available in the Annual Report of the Board of Governors pursuant to the requirements of section 10 of the Federal Reserve Act. That section provides that the Board shall keep a complete record of the actions taken by the Board and by the Federal Open Market Committee on all questions of policy relating to open market operations, that it shall record therein the votes taken in connection with the determination of open market policies and the reasons underlying each policy action, and that it shall include in its annual report to Congress a full account of such actions. Links to the minutes for each of the eight regularly scheduled meetings held in 2022 are in the list below.

Meeting Minutes

- Meeting held on January 25–26, 2022
  https://www.federalreserve.gov/monetarypolicy/files/fomcminutes20220126.pdf
- Meeting held on March 15–16, 2022
  https://www.federalreserve.gov/monetarypolicy/files/fomcminutes20220316.pdf
- Meeting held on May 3–4, 2022
  https://www.federalreserve.gov/monetarypolicy/files/fomcminutes20220504.pdf
- Meeting held on June 14–15, 2022
  https://www.federalreserve.gov/monetarypolicy/files/fomcminutes20220615.pdf
- Meeting held on July 26–27, 2022
  https://www.federalreserve.gov/monetarypolicy/files/fomcminutes20220727.pdf
- Meeting held on September 20–21, 2022
  https://www.federalreserve.gov/monetarypolicy/files/fomcminutes20220921.pdf
- Meeting held on November 1–2, 2022
  https://www.federalreserve.gov/monetarypolicy/files/fomcminutes20221102.pdf
- Meeting held on December 13–14, 2022
  https://www.federalreserve.gov/monetarypolicy/files/fomcminutes20221214.pdf

The minutes of the meetings contain the votes on the policy decisions made at those meetings, as well as a summary of the information and discussions that led to the decisions. The descriptions of economic and financial conditions in the minutes are based solely on the information that was available to the Committee at the time of the meetings.

Members of the Committee voting for a particular action may differ among themselves as to the reasons for their votes; in such cases, the range of their views is noted in the minutes. When members dissent from a decision, they are identified in the minutes and a summary of the reasons for their dissent is provided.

Policy directives of the Federal Open Market Committee are issued to the Federal Reserve Bank of New York as the Bank selected by the Committee to execute transactions for the System Open Market Account. Adoption of the policy directives during the year are reported in the minutes for the individual meetings.[1]

For more information about the Federal Open Market Committee's meetings, statements, and minutes, visit the Board's website at https://www.federalreserve.gov/monetarypolicy/fomccalendars.htm.

[1] The Federal Open Market Committee's standard rules and authorizations in effect as of January 1, 2022, are available at https://www.federalreserve.gov/monetarypolicy/files/FOMC_RulesAuthPamphlet_202101.pdf. The rules and authorizations put into effect subsequently in 2022 are available at https://www.federalreserve.gov/monetarypolicy/files/FOMC_RulesAuthPamphlet_202202.pdf.

C | Federal Reserve System Audits

The Board of Governors, the Federal Reserve Banks, and the Federal Reserve System as a whole are all subject to several levels of audit and review.

The Board's financial statements and internal controls over financial reporting are audited annually by an independent outside auditor retained by the Board's Office of Inspector General (OIG). The outside auditor also tests the Board's compliance with certain provisions of laws, regulations, and contracts affecting those statements.

The Reserve Banks' financial statements are audited annually by an independent outside auditor retained by the Board of Governors. In addition, the Reserve Banks are subject to annual examination by the Board. As discussed in section 5, "Payment System and Reserve Bank Oversight," the Board's examination includes a wide range of ongoing oversight activities conducted on site and off site by staff of the Board's Division of Reserve Bank Operations and Payment Systems.

The audited annual financial statements of the Board of Governors, the Reserve Banks, and the Federal Reserve System as a whole are available on the Board's website at https://www.federalreserve.gov/aboutthefed/audited-annual-financial-statements.htm.

In addition, the OIG conducts audits, evaluations, investigations, and other reviews relating to the Board's programs and operations as well as to Board functions delegated to the Reserve Banks. Certain aspects of Federal Reserve operations are also subject to review by the Government Accountability Office.

Office of Inspector General Activities

The OIG for the Federal Reserve Board, which is also the OIG for the Consumer Financial Protection Bureau (CFPB), operates in accordance with the Inspector General Act of 1978, as amended. The OIG plans and conducts audits, inspections, evaluations, investigations, and other reviews relating to Board and CFPB programs and operations, including functions that the Board has delegated to the Federal Reserve Banks. It also retains an independent public accounting firm to annually audit the Board's and the Federal Financial Institutions Examination Council's financial statements. These activities promote economy and efficiency; enhance policies and procedures; and prevent and detect waste, fraud, and abuse. In addition, the OIG keeps the Congress, the Board of Governors, and the CFPB director fully and currently informed about serious abuses and deficiencies.

The OIG has focused significant resources on oversight of the Board's pandemic response efforts, including the Board's emergency lending programs and facilities. The OIG has initiated multiple audits and evaluations, with other work planned, in key risk areas and opened investigations of alleged fraud related to these programs.

During 2022, the OIG issued 18 reports (table C.1). Because of the sensitive nature of some of the material, 2 of the 18 reports, both of which were issued to the Board, are nonpublic, as indicated. In addition, the OIG issued to the Board and to the CFPB eight memorandums on information technology issues. Because of the sensitive nature of some of the material, these information technology memorandums are nonpublic. The OIG also conducted follow-up reviews to evaluate actions taken on recommendations for corrective action. Regarding the OIG's investigative work related to the Board and the CFPB, 78 investigations were opened and 57 investigations were closed during the year. OIG investigative work resulted in 36 arrests, 7 criminal complaints, 41 criminal informations, 20 indictments, 49 convictions, and 3 prohibitions from the banking

Table C.1. OIG reports issued in 2022

Report title	Month issued
The Board Can Enhance Its Personnel Security Program	January
The Board's Contract Modification Process Related to Renovation Projects Is Generally Effective	February
Federal Financial Institutions Examination Council Financial Statements as of and for the Years Ended December 31, 2021 and 2020, and Independent Auditors' Reports	February
The Board Has Effective Processes to Collect, Aggregate, Validate, and Report CARES Act Lending Program Data	February
Board of Governors of the Federal Reserve System Financial Statements as of and for the Years Ended December 31, 2021 and 2020, and Independent Auditors' Reports	March
The Board Can Strengthen Inventory and Cybersecurity Life Cycle Processes for Cloud Systems	March
Independent Accountants' Report on the Bureau's Fiscal Year 2021 Compliance With the Payment Integrity Information Act of 2019	April
Testing Results for the Board's Software and License Asset Management Processes (nonpublic report)	June
Security Control Review of the Board's Secure Document System (nonpublic report)	June
Fiscal Years 2020 and 2021 Risk Assessment of the Bureau's Purchase Card Program	August
The Board Implemented Safety Measures in a Manner Consistent With Its Return-to-Office Plan	September
The CFPB Implemented Safety Measures in Accordance With Its Reentry Plan	September
The CFPB Is Generally Prepared to Implement the OPEN Government Data Act and Can Take Additional Steps to Further Align With Related Requirements	September
2022 Audit of the Board's Information Security Program	September
2022 Audit of the CFPB's Information Security Program	September
Observations on Cybersecurity Risk Management Processes for Vendors Supporting the Main Street Lending Program and the Secondary Market Corporate Credit Facility	November
The Board Can Enhance Certain Governance Processes Related to Reviewing and Approving Supervisory Proposals	December
The Board Can Enhance the Effectiveness of Certain Aspects of Its Model Risk Management Processes for the SR/HC-SABR and BETR Models	December

industry, as well as $37,012,952 in criminal fines, restitution, and special assessments. The OIG also issued two semiannual reports to Congress. The OIG performed 13 reviews of legislation and regulations related to the operations of the Board, the CFPB, or the OIG.

For more information and to view the OIG's publications, visit the OIG's website at https://oig.federalreserve.gov. Specific details about the OIG's body of work also may be found in the OIG's *Work Plan* and semiannual reports to Congress.

Government Accountability Office Reviews

The Federal Banking Agency Audit Act (Pub. L. No. 95–320) authorizes the Government Accountability Office (GAO) to audit certain aspects of Federal Reserve System operations. The Dodd-Frank Wall Street Reform and Consumer Protection Act of 2010 and the Coronavirus Aid, Relief, and Economic Security Act of 2020 direct the GAO to conduct additional audits with respect to these operations. In 2022, the GAO completed 12 projects that involved the Federal Reserve (table C.2). Ten projects were ongoing as of December 31, 2022 (table C.3).

For more information and to view GAO reports, visit the GAO's website at https://www.gao.gov.

Table C.2. GAO reports issued in 2022

Report title	Report number	Month publicly released
Privacy: Federal Financial Regulators Should Take Additional Actions to Enhance Their Protection of Personal Information	GAO-22-104551	January
Housing Finance System: Future Reforms Should Consider Past Plans and Vulnerabilities Highlighted by Pandemic	GAO-22-104284	January
COVID-19: Significant Improvements Are Needed for Overseeing Relief Funds and Leading Responses to Public Health Emergencies	GAO-22-105291	January
Trafficking: Use of Online Marketplaces and Virtual Currencies in Drug and Human Trafficking	GAO-22-105101	February
Banking Services: Regulators Have Taken Actions to Increase Access, but Measurement of Actions' Effectiveness Could Be Improved	GAO-22-104468	March
Defined Contribution Plans: 403(b) Investment Options, Fees, and Other Characteristics Varied	GAO-22-104439	April
Native American Veterans: Improvements to VA Management Could Help Increase Mortgage Loan Program Participation	GAO-22-104627	April
COVID-19: Current and Future Federal Preparedness Requires Fixes to Improve Health Data and Address Improper Payments	GAO-22-105397	April
Bank Supervision: Lessons Learned from Remote Supervision during Pandemic Could Inform Future Disruptions	GAO-22-104659	September
Working Dogs: Federal Agencies Need to Better Address Health and Welfare	GAO-23-104489	October
Financial Audit: Bureau of the Fiscal Service's FY 2022 and FY 2021 Schedules of Federal Debt	GAO-23-105586	November
Federal Reserve Lending Programs: Risks Remain Low in Related Credit Markets, and Main Street Loans Have Generally Performed Well	GAO-23-105629	December

Table C.3. Projects active at year-end 2022

Subject of project	Month initiated	Status
HMDA loan volume thresholds	October 2020	Open
Consumer credit card debt	June 2021	Open
Blockchain in financial services	August 2021	Open
Financial technology, equity, and inclusion	January 2022	Closed 3/8/2023
Modernizing the financial regulatory structure	March 2022	Open
Alternative work arrangements in the U.S. labor market	March 2022	Open
Financing of domestic violent extremists	April 2022	Open
Technological expertise of regulators' staff	August 2022	Open
Technology needs of community development financial institutions and minority depository institutions	October 2022	Open
Federal Reserve stress tests and capital requirements	October 2022	Open

D | Federal Reserve System Budgets

The Federal Reserve Board of Governors and the Federal Reserve Banks prepare annual budgets as part of their efforts to ensure appropriate stewardship and accountability.[1] This section presents information on the 2022 budget performance of the Board and Reserve Banks and on their 2023 budgets, budgeting processes, and trends in expenses and employment. This section also presents information on the costs of new currency.

System Budgets Overview

Tables D.1 and D.2 summarize the Federal Reserve Board of Governors' and Federal Reserve Banks' 2022 budgeted, 2022 actual, and 2023 budgeted operating expenses and employment.[2]

2022 Budget Performance

In carrying out its responsibilities in 2022, the Federal Reserve System incurred $5,970.4 million in net expenses. Total System operating expenses of $7,283.5 million were offset by $1,313.1 million in revenue from priced services, claims for reimbursement, and other income. Total 2022 System operating expenses were $218.3 million, or 3.5 percent, less than the amount budgeted for 2022.

2023 Operating Expense Budget

Budgeted 2023 System operating expenses of $6,292.7 million, net of revenue and reimbursements, are $322.3 million, or 5.4 percent, higher than 2022 actual expenses. The Reserve Bank budgets comprise almost three-quarters of the System budget (figure D.1). Budgeted 2023 revenue from priced services is 6.2 percent higher than 2022 actual revenue, largely due to a shift from reimbursements to revenue as a result of the Treasury's decision to offer the transfer and settlement of marketable Treasury bills, notes, and bonds through the Fedwire Securities Service. This change will enable Reserve Banks to collect fees from customers and eliminate the need for

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1 Before 2013, information about the budgeted expenses of the Board and Reserve Banks was presented in a separate report titled *Annual Report: Budget Review*. The report is available at https://www.federalreserve.gov/publications/budget-review/default.htm.

Each budget covers one calendar year.

2 Substantially all employees of the Board and Reserve Banks participate in the Retirement Plan for Employees of the Federal Reserve System (System Plan). Reserve Bank employees at certain compensation levels participate in the Benefit Equalization Plan, and certain Reserve Bank officers participate in the Supplemental Retirement Plan for Select Officers of the Reserve Banks. The operating expenses of the Reserve Banks presented in this section do not include expenses related to the retirement plans; however, the 2022 claims for reimbursement include the allocated portion of the pension. Additional information about these expenses can be found in Appendix G, "Statistical Tables."
Board employees also participate in the Benefit Equalization Plan, and Board officers participate in the Pension Enhancement Plan for Officers of the Board of Governors of the Federal Reserve System (PEP). The operating expenses of the Board presented in this section include expenses related to Board participants in the Benefit Equalization Plan and PEP but do not include expenses related to the System Plan.

Table D.1. Total operating expenses of the Federal Reserve System, net of receipts and claims for reimbursement, 2022–23
Millions of dollars, except as noted

Item	2022 budget	2022 actual	Variance 2022 actual to 2022 budget		2023 budget	Variance 2023 budget to 2022 actual	
			Amount	Percent		Amount	Percent
Board	965.9	912.9	–53.0	–5.5	960.8	47.8	5.2
Office of Inspector General[1]	36.0	37.6	1.7	4.6	37.9	0.3	0.7
Reserve Banks[2]	5,434.6	5,353.0	–81.6	–1.5	5,646.2	293.2	5.5
Currency[3]	1,060.0	979.9	–80.1	–7.6	931.4	–48.5	–5.0
Total System operating expenses[4]	7,496.5	7,283.5	–213.0	–2.8	7,576.3	292.8	4.0
Revenue from priced services	477.2	466.8	–10.4	–2.2	495.7	28.9	6.2
Claims for reimbursement[5]	829.7	845.9	16.2	2.0	787.9	–58.0	–6.9
Other income[6]	1.0	0.4	–0.6	–61.3	0.0	–0.4	–100.0
Revenue and claims for reimbursement[7]	1,307.9	1,313.1	5.2	0.4	1,283.6	–29.1	–2.2
Total System operating expenses, net of revenue and claims for reimbursement	**6,188.6**	**5,970.4**	**–218.3**	**–3.5**	**6,292.7**	**322.3**	**5.4**

Note: Here and in subsequent tables, components may not sum to totals and may not yield percentages shown because of rounding.

1 Reflects the total operating budget net of expected earned income from the Consumer Financial Protection Bureau (CFPB). For 2022, the Office of Inspector General (OIG) conducted less work related to the CFPB than planned, which drove the variance.

2 Excludes Reserve Bank assessments by the Board of Governors for costs related to currency and the operations of the Board of Governors, OIG, and CFPB.

3 In the previous report, single-cycle and multicycle project budgets were combined. However, the 2022 and 2023 currency budgets only include the single-cycle operating costs. The Bureau of Engraving and Printing's multicycle project budgets are tracked separately.

4 Includes total operating expenses of the Federal Reserve Information Technology support function and the System's Office of Employee Benefits, the majority of which are in the Reserve Banks.

5 Reimbursable claims include the expenses of fiscal agency. In 2022 actual, the fiscal agency allocated portion of the pension is also included but is not included for the budget. The fiscal agency budgeted pension expense is $81.0 million in 2022 and $79.8 million in 2023.

6 In 2022 and prior years, other income included fees that depository institutions pay for the settlement component of the Fedwire Securities Service transactions for U.S. Department of the Treasury securities transfers. In 2023, these fees will no longer be collected as a result of the Treasury's decision to offer the transfer and settlement of marketable Treasury bills, notes, and bonds through the Fedwire Securities Service, and will be reported as revenue going forward.

7 Excludes annual assessments for the supervision of large financial companies pursuant to Regulation TT, which are not recognized as revenue or used to fund Board expenses. (See section 4, "Supervision and Regulation," for more information.)

remittance to and reimbursement from the Treasury. This change is effective January 2023 and is reflected in lower reimbursable claims and higher revenue in the 2023 budget.

Trends in Expenses and Employment

From the actual 2013 amount to the budgeted 2023 amount, the total operating expenses of the Federal Reserve System have increased an average of 4.6 percent annually (figure D.2), which is slightly lower than the 10-year growth rate between 2012 and 2022. The total rate of growth in Federal Reserve System expenses reflects investments in technology initiatives related to new and ongoing application development, payment infrastructure modernization efforts, the next-

Table D.2. Employment in the Federal Reserve System, 2022–23

Item	2022 budget	2022 actual	Variance 2022 actual to 2022 budget		2023 budget	Variance 2023 budget to 2022 actual	
			Amount	Percent		Amount	Percent
Board	3,083	2,988	-95	-3.1	3,054	66	2.2
Office of Inspector General	133	133	1	0.6	136	2	1.8
Reserve Banks[1]	21,212	20,831	-381	-1.8	20,763	-68	-0.3
Currency[2]	20	18	-2	-10.4	22	4	21.3
Total System employment	**24,448**	**23,970**	**-478**	**-2.0**	**23,974**	**4**	**0.0**

Note: For 2022, employment numbers presented include average number of personnel (ANP) for the Board and headcount for the Reserve Banks. ANP is the average number of employees expressed in terms of full-time positions for the period and includes outside agency help. Headcount is the number of active employees in an organization. Headcount is the actual number of people employed (actual) or expected to be employed (projected) at a given date and includes full-time and part-time staff. For 2023, employment numbers are represented in full-time equivalents (FTE) for the Reserve Banks. FTE represent an employee's scheduled hours divided by the employer's hours for a full-time workweek. Part-time workers' hours can be fractional, which means the variance may be off slightly.

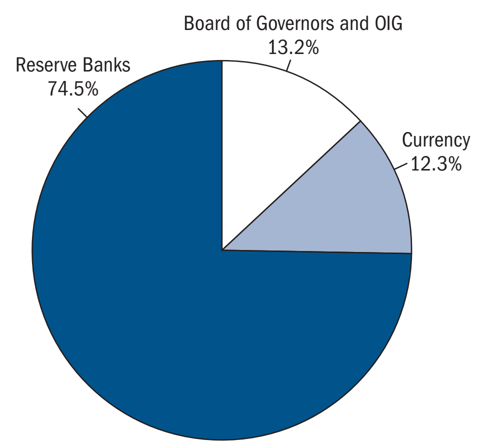
[1] Includes employment of the Federal Reserve Information Technology (FRIT) support function and the Office of Employee Benefits (OEB).

[2] Values are subject to change based on revisions to underlying data.

generation currency-processing program, and resources to support the supervision portfolio and other national strategic initiatives (figure D.3).

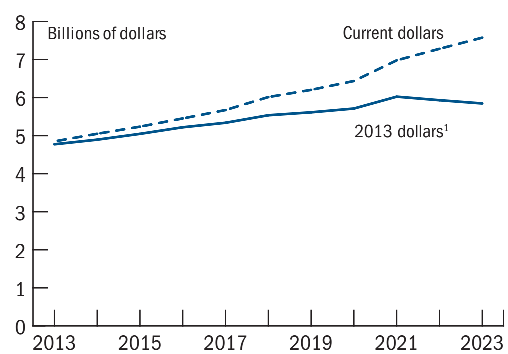
Expense growth in the monetary policy area represents continued investment in regional economic research, and resources to support effective market operations and environmental monitoring activities.

Figure D.1. Distribution of budgeted expenses of the Federal Reserve System, 2023



OIG: Office of Inspector General.

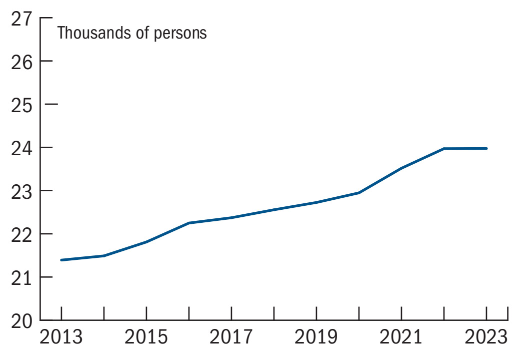
Figure D.2. Total expenses of the Federal Reserve System, 2013–23



[1] Calculated with the GDP price deflator.

Note: For 2023, budgeted. Includes expenses of the OIG.

Figure D.3. Employment in the Federal Reserve System, 2013–23



Note: For 2023, budgeted. From 2013 to 2018, employment numbers presented include position counts for the Board and the OIG and average number of personnel (ANP) for the Reserve Banks. From 2019 to 2020, employment numbers for all entities are represented in ANP. For 2021 to 2022, employment numbers presented include ANP for the Board and OIG and headcount for the Reserve Banks. For 2023, employment numbers presented include ANP for the Board and OIG and full-time equivalents for the Reserve Banks.

Treasury services expenses have increased to meet expanding scope and evolving needs, including business and technology modernization of payment services, financing and securities services, and accounting and reporting services, as well as significant investment in infrastructure and technology services.

Expenses for services to financial institutions continue to increase as a result of the next-generation currency-processing program (NextGen).[3] More recently, increased demand for cash and social distancing protocols related to the COVID-19 pandemic have resulted in higher personnel costs for cash operations and other related expenses for essential on-site staff, such as hazard pay, rapid COVID-19 testing, and frequent and in-depth cleaning services. Growth in services to financial institutions and the public is also attributable to the addition of resources in support of the credit and liquidity facilities created in response to the COVID-19 pandemic.

Supervision growth has moderated over the past 10 years. Growth driven by changes in the state member bank portfolio, the buildout of the cybersecurity supervision program, and support for other national strategic initiatives was partially offset by adjustments to supervisory mandates from the Economic Growth, Regulatory Reform and Consumer Protection Act, the identification and realization of operational efficiencies, and the prioritization of resources toward higher-risk activities and emerging risks. In particular, resources were temporarily shifted from supervision in 2020 and 2021 to support the credit and liquidity facilities responding to the COVID-19 pandemic. Expenses for 2022 reflect higher-than-budgeted turnover and extended lag in hiring vacant positions.

Growth in fee-based services is primarily for investments in the payment infrastructure modernization efforts, including the FedNow[SM] Service initiative, and investments associated with

[3] The System is implementing a strategy to transition the current fleet of high-speed currency processing machines and the associated sensor suite from the Banknote Processing System platform to the future next-generation (NextGen) processing technologies (machines and sensor technologies).

multiyear technology initiatives to modernize processing platforms for Fedwire and automated clearinghouse (ACH).[4]

2023 Capital Budgets

The capital budgets for the Board and Reserve Banks total $173.7 million and $888.2 million, respectively.[5] As in previous years, the 2023 capital budgets include funding for projects that support the strategic direction outlined by the Board, System leadership, and each Reserve Bank. These strategic goals emphasize investments that continue to improve operational efficiencies, enhance services to Bank customers, and ensure a safe and productive work environment.

Board of Governors Budgets

Board of Governors

The Board's budget is based on the principles established by the *Strategic Plan 2020–23* and provides funding to advance the plan's goals and objectives.[6] This functional alignment helps ensure organizational resources are used to advance the Board's mission and provides a structure to fund strategic priorities over the four-year time horizon.

The Board's budget process is as follows:

- At the start of the budget process, the chief operating officer and chief financial officer meet with the Committee on Board Affairs (CBA) to recommend a specific growth target for the Board's operating budget. For 2023, the recommended growth target included known changes in the run-rate of the Board's ongoing operations. Existing and new initiatives were evaluated, refined, and prioritized to fund the most important strategic priorities. After endorsement by the CBA, Division of Financial Management (DFM) staff communicate the target to the Executive Committee, which comprises the directors of each division.
- To achieve the CBA's growth target, divisions allocate resources to their highest priorities and seek tradeoffs and efficiencies.
- DFM staff review initial budget requests submitted by divisions and collaborate with all divisions and functional areas to achieve the growth target.[7]

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[4] The Federal Reserve is developing a new round-the-clock, real-time payment and settlement service, called the FedNow Service, to support faster payments in the United States. The initiative to modernize the ACH processing platform was completed in early 2021.

[5] The capital budget reported for the Board includes single-year capital expenditures and 2023 expected capital expenditures from multiyear projects of the Board and the Office of Inspector General. The capital budget reported for the Reserve Banks includes the amounts budgeted for the Federal Reserve Information Technology support function and the Office of Employee Benefits.

[6] The Board approved the plan published in December 2019 and located at https://www.federalreserve.gov/publications/files/2020-2023-gpra-strategic-plan.pdf.

[7] Monetary Policy and Financial Stability, Supervision, Payment System and Reserve Bank Oversight, Public Engagement and Community Development, and Mission Enablement (Support and Overhead).

- The chief operating officer and chief financial officer subsequently brief the CBA on the budget submissions. Once the budget is finalized, the administrative governor submits the budget to the full Board for review and final approval.
- DFM staff monitor expenses throughout the year. Quarterly financial forecasts provide insight into budgetary pressures. Staff analyze variances and report the variances to senior management.

Tables D.3, D.4, and D.5 summarize the Board's 2022 budgeted and actual expenses and its 2023 budgeted expenses by operating area; division, office, or special account; and account classification, respectively. Table D.6 summarizes the Board's 2022 budgeted and actual authorized positions and its budgeted positions for 2023. Each table includes a line item for the Office of Inspector General (OIG), which is discussed later in this section.

Table D.3. Operating expenses of the Board of Governors, by operating area, 2022–23
Millions of dollars, except as noted

Item	2022 budget	2022 actual	Variance 2022 actual to 2022 budget		2023 budget	Variance 2023 budget to 2022 actual	
			Amount	Percent		Amount	Percent
Monetary policy and financial stability[1]	415.5	395.9	–19.6	–4.7	409.1	13.2	3.3
Supervision	420.9	393.1	–27.9	–6.6	412.6	19.5	5.0
Payment system and Reserve Bank oversight	75.9	72.0	–3.9	–5.1	82.2	10.3	14.3
Public engagement and community development	53.7	52.0	–1.7	–3.1	56.9	4.9	9.4
Total, Board operations	**965.9**	**912.9**	**–53.0**	**–5.5**	**960.8**	**47.8**	**5.2**
Office of Inspector General	36.0	37.6	1.7	4.6	37.9	0.3	0.7

Note: This table presents financial performance for the Board's operating areas, which align with the Reserve Banks. Monetary policy and financial stability aligns with monetary and economic policy within the Reserve Banks; growth in 2023 is driven by strategic priorities and employment growth. Supervision aligns with supervision and regulation within the Reserve Banks; growth in 2023 is driven by strategic priorities and employment growth. Payment system and Reserve Bank oversight is an operating area unique to the Board. Public engagement and community development aligns with services to financial institutions and the public within the Reserve Banks. Office of Inspector General growth in 2023 is driven by employment growth and higher Board support and overhead allocations.
[1] Includes the Survey of Consumer Finances.

2022 Budget Performance

Total expenses for Board operations were $912.9 million, which were $53.0 million, or 5.5 percent, lower than the approved 2022 budget of $965.9 million.

Personnel services expenses were $28.7 million, or 4.0 percent, lower than the approved budget, driven by higher-than-budgeted vacancy rates and lower pension expenses that fluctuate with changes in actuarial assumptions and demographics. Goods and services expenses were

Table D.4. Operating expenses of the Board of Governors, by division, office, or special account, 2022–23

Millions of dollars, except as noted

Division, office, or special account	2022 budget	2022 actual	Variance 2022 actual to 2022 budget		2023 budget	Variance 2023 budget to 2022 actual	
			Amount	Percent		Amount	Percent
Research and Statistics	100.3	99.4	–0.9	–0.9	108.3	8.8	8.9
International Finance	40.2	39.7	–0.5	–1.3	42.2	2.5	6.2
Monetary Affairs	45.8	45.4	–0.4	–0.9	49.3	3.8	8.5
Financial Stability	20.3	18.4	–1.9	–9.4	21.0	2.6	14.0
Supervision and Regulation	128.7	120.4	–8.3	–6.4	129.7	9.2	7.7
Consumer and Community Affairs	38.8	38.2	–0.6	–1.7	41.0	2.9	7.5
Reserve Bank Operations and Payment Systems	49.0	46.8	–2.1	–4.3	51.4	4.5	9.6
Board Members	27.4	28.1	0.7	2.5	30.0	1.9	6.8
Secretary	10.4	11.2	0.8	7.9	11.9	0.7	6.1
Legal	36.3	33.5	–2.8	–7.6	36.8	3.3	9.8
Chief Operating Officer	15.7	13.2	–2.5	–16.1	15.1	1.9	14.3
Financial Management	15.2	14.6	–0.6	–4.3	16.1	1.5	10.6
Information Technology	148.5	148.3	–0.2	–0.1	158.2	9.9	6.7
Management	185.8	180.7	–5.1	–2.8	192.7	12.0	6.6
Centrally managed benefits[1]	55.0	46.9	–8.1	–14.7	33.2	–13.7	–29.3
Extraordinary items[2]	54.1	33.3	–20.8	–38.5	48.3	15.0	45.2
Savings and reallocations[3]	-20.3	–19.1	1.3	–6.3	–24.7	–5.6	29.5
Survey of Consumer Finances[4]	14.7	13.9	–0.8	–5.6	0.5	–13.3	–96.1
Total, Board operations	**965.9**	**912.9**	**–53.0**	**–5.5**	**960.8**	**47.8**	**5.2**
Office of Inspector General	36.0	37.6	1.7	4.6	37.9	0.3	0.7

1 For 2022, Special Projects and Retirement and Benefits were merged. Centrally managed benefits includes centralized Boardwide benefit programs, such as accrued annual leave, academic assistance, and relocation, and retirement and post-retirement benefits, which fluctuate because of changes in actuarial assumptions and demographics.
2 Includes several strategic projects, including the Martin building renovation, replacement of the Board's human capital, financial management and procurement systems, and a centralized position pool.
3 Includes negative adjustments to reflect measured budget risks for large, complex projects and historical under execution. In addition, includes Board support and overhead allocations to the Office of Inspector General and Currency.
4 The survey collects information about family incomes, net worth, balance sheet components, credit use, and other financial outcomes, and is conducted every three years.

$24.3 million, or 9.7 percent, lower than the approved budget driven by lower contractual professional services, lower data, software, and hardware purchases, and reduced travel and training spend. A slower start in ramping up new technology initiatives contributed to the under-execution.

The Board's 2022 single-year capital spending was less than budgeted by $7.7 million, or 38.7 percent, driven by lower spending on equipment purchases and life-cycle replacements as

Table D.5. Operating expenses of the Board of Governors, by account classification, 2022–23
Millions of dollars, except as noted

Account classification	2022 budget	2022 actual	Variance 2022 actual to 2022 budget		2023 budget	Variance 2023 budget to 2022 actual	
			Amount	Percent		Amount	Percent
Personnel services							
Salaries	535.7	518.3	–17.4	–3.2	558.5	40.1	7.7
Outside agency help[1]	38.3	37.0	–1.3	–3.4	44.5	7.5	20.3
Retirement/Thrift plans	78.0	75.2	–2.8	–3.6	71.2	–4.1	–5.4
Employee insurance and other benefits	45.6	41.5	–4.1	–9.0	47.5	6.0	14.5
Net periodic benefits costs[2]	18.5	15.4	–3.1	–16.8	7.7	–7.7	–50.0
Subtotal, personnel services	**716.2**	**687.5**	**–28.7**	**–4.0**	**729.4**	**41.9**	**6.1**
Goods and services							
Postage and shipping	0.3	0.3	0.1	20.5	0.3	0.0	–13.1
Travel	9.2	8.1	–1.1	–12.2	8.9	0.8	10.4
Telecommunications	7.1	6.0	–1.0	–14.5	6.9	0.8	13.8
Printing and binding	0.7	0.5	–0.2	–28.7	0.5	0.0	6.2
Publications	0.3	0.3	0.0	–5.1	0.3	0.0	5.4
Stationery and supplies	1.1	1.3	0.2	15.5	1.1	–0.2	–12.5
Software	35.6	31.2	–4.4	–12.5	35.9	4.7	15.2
Furniture and equipment (F&E)	10.0	10.0	0.1	0.8	6.9	–3.1	–31.0
Rentals	37.5	37.6	0.1	0.3	39.6	2.0	5.2
Data, news, and research	35.7	30.9	–4.8	–13.4	22.9	–8.0	–25.9
Utilities	1.9	2.4	0.5	25.3	2.4	–0.1	–2.2
Repairs and alterations—building	4.9	4.9	0.0	–0.3	5.8	0.9	19.2
Repairs and maintenance—F&E	5.5	5.7	0.2	4.2	5.9	0.2	3.7
Contractual professional services	49.2	38.4	–10.8	–22.0	47.3	8.9	23.2
Interest	0.0	0.0	0.0	199.1	0.0	0.0	–33.4
Training and dues	6.0	3.2	–2.9	–47.4	5.3	2.1	67.1
Subsidies and contributions	3.2	2.5	–0.7	–21.1	3.4	0.9	34.2
All other	5.1	6.2	1.1	22.0	7.3	1.1	18.3
Depreciation/amortization	59.9	58.7	–1.2	–2.1	57.2	–1.4	–2.5
Support and overhead allocations[3]	–19.1	–19.1	0.0	0.2	–21.9	–2.8	14.8
Income	–4.4	–3.8	0.7	–14.7	–4.7	–0.9	24.9
Subtotal, goods and services	**249.7**	**225.4**	**–24.3**	**–9.7**	**231.4**	**6.0**	**2.7**
Total, Board operations	**965.9**	**912.9**	**–53.0**	**–5.5**	**960.8**	**47.8**	**5.2**
Office of Inspector General (OIG)							
Personnel services	31.2	30.9	–0.3	–0.9	33.1	2.1	6.9
Goods and services[4]	20.1	19.5	–0.6	–3.1	21.0	1.5	7.7
Subtotal, excluding operating income	**51.4**	**50.5**	**–0.9**	**–1.8**	**54.1**	**3.7**	**7.2**
Operating income[5]	–15.4	–12.8	2.6	–16.7	–16.2	–3.4	26.5
Total, OIG operations	**36.0**	**37.6**	**1.7**	**4.6**	**37.9**	**0.3**	**0.7**

1 For 2022, contractor expenses that met the ANP definition were moved from goods and services (contractual professional services) to personnel services (outside agency help) to provide a more complete view of personnel expenses. This change is in alignment with the Reserve Banks. For comparability, changes are also reflected for 2021 budget and actual.
2 Net periodic benefits costs other than services costs related to pension and post-retirement benefits.
3 Includes a net zero transfer of costs from the Board operating budget to the OIG and Currency operating budgets for Board support and overhead expenses attributable to the OIG and Currency.
4 Includes Board support and overhead allocations to the OIG.
5 The OIG operating budget incorporates earned income from the Consumer Financial Protection Bureau.

Table D.6. Positions authorized by the Board of Governors, by division, office, or special account, 2022–23

Division, office, or special account	2022 budget	2022 actual	Variance 2022 actual to 2022 budget		2023 budget	Variance 2023 budget to 2022 actual	
			Amount	Percent		Amount	Percent
Research and Statistics	364	364	0.0	0.0	364	0	0.0
International Finance	168	168	0.0	0.0	168	0	0.0
Monetary Affairs	186	186	0.0	0.0	186	0	0.0
Financial Stability	80	81	1.0	1.3	81	0	0.0
Supervision and Regulation	497	497	0.0	0.0	497	0	0.0
Consumer and Community Affairs	138	138	0.0	0.0	138	0	0.0
Reserve Bank Operations and Payment Systems	187	190	3.0	1.6	190	0	0.0
Board Members	123	124	1.0	0.8	124	0	0.0
Secretary	55	56	1.0	1.8	56	0	0.0
Legal	132	136	4.0	3.0	136	0	0.0
Chief Operating Officer	65	64	–1.0	–1.5	64	0	0.0
Financial Management	72	72	0.0	0.0	72	0	0.0
Information Technology	418	419	1.0	0.2	419	0	0.0
Management	485	485	0.0	0.0	485	0	0.0
Extraordinary items[1]	9	0	–9.0	–100.0	10	10	n/a
Total, Board operations	**2,979**	**2,980**	**1.0**	**0.0**	**2,990**	**10**	**0.3**
Office of Inspector General	142	142	0.0	0.0	142	0	0.0

Note: Budget represents authorized position count at the beginning of the year, and actual represents authorized position count at year-end.
[1] Centralized position pool used for strategic areas of growth.

well as routine building improvements. Multiyear capital projects spending in 2022 was higher than budgeted by $4.6 million, or 3.9 percent. Although 2022 expenditures for multiyear capital projects were higher than budgeted, multiyear projects are still projected to be within their project budgets. Table D.7 summarizes the Board's budgeted and actual capital expenditures for 2022 and 2023.

2023 Operating Expense Budget

The 2023 budget for Board operations is $960.8 million, which is $47.8 million, or 5.2 percent, higher than 2022 actual expenses. Staff formulated the operating budget to advance the Board's strategic priorities, and it includes initiatives that support policy deliberations; promote safety, soundness, and stability of financial institutions; foster a safe, efficient, and accessible payment and settlement system; promote broader, ongoing engagement with the public; and optimize operations.

Table D.7. Capital expenditures of the Board of Governors, by capital type, 2022–23

Item	2022 budget	2022 actual	Variance 2022 actual to 2022 budget		2023 budget	Variance 2023 budget to 2022 actual	
			Amount	Percent		Amount	Percent
Board							
Single-year capital expenditures	20.0	12.3	–7.7	–38.7	21.7	9.4	76.9
Multiyear capital expenditures	118.9	123.6	4.6	3.9	151.8	28.2	22.9
Total capital expenditures	**139.0**	**135.8**	**–3.1**	**–2.2**	**173.5**	**37.7**	**27.7**
Office of Inspector General (OIG)							
Single-year capital expenditures	0.0	0.0	0.0	n/a	0.2	0.2	n/a
Multiyear capital expenditures	0.0	0.0	0.0	n/a	0.0	0.0	n/a
Total capital expenditures	**0.0**	**0.0**	**0.0**	**n/a**	**0.2**	**0.2**	**n/a**
Board and OIG total capital expenditures	**139.0**	**135.8**	**–3.1**	**–2.2**	**173.7**	**37.9**	**27.9**

Note: The amount reported for the multiyear capital budget represents the expected expenditure for the budget year.
n/a Not applicable.

In addition, the 2023 budget includes growth driven by employment growth expected to occur in 2023, funding for the Board's compensation and benefit programs, and approved initiatives.

Authorized positions for 2023 are 2,990, an increase of 10 positions from the 2022 authorized number.

2023 Capital Budgets

The Board's 2023 single-year capital budget totals $21.7 million, which is $9.4 million, or 76.9 percent, higher than 2022 actual capital expenditures. The proposed budget includes building infrastructure needs and continued investments in automation projects and routine life-cycle replacements of equipment.

The Board's multiyear capital budget is driven by facilities projects. Expected capital expenditures in 2023 total $151.8 million and reflect the Board's commitment to provide a secure, modern environment that meets the needs of the workforce and leverages opportunities to increase collaboration, efficiency, productivity, and sustainability. Table D.7 summarizes the Board's budgeted and actual capital expenditures for 2022 and 2023.

Office of Inspector General

The budget for the Board's OIG is grounded in the goals established in its strategic plan.[8] The goals are to deliver results that promote agency excellence; promote a diverse, skilled, and

[8] The plan is located at https://oig.federalreserve.gov/strategic-plan.htm.

engaged workforce and foster an inclusive, collaborative environment; optimize external stakeholder engagement; and advance organizational effectiveness and model a culture of continuous improvement.

In keeping with its statutory independence, the OIG prepares its proposed budget apart from the Board's budget. The OIG presents its budget directly to the Board for approval.

2022 Budget Performance

Expenses for OIG operations, excluding operating income, were $50.5 million, which was $0.9 million, or 1.8 percent, lower than the approved 2022 budget of $51.4 million.

Personnel services expenses were lower than the approved budget by $0.3 million, or 0.9 percent. Goods and services expenses were $0.6 million, or 3.1 percent, lower than the approved budget, driven by lower contractual professional services and reduced training and telecommunications spend. Operating income was $2.6 million, or 16.7 percent, lower than the approved budget amount; the office conducted less work related to the Consumer Financial Protection Bureau than planned because of the ongoing, increased oversight and investigative responsibilities related to the Board's programs created in response to the COVID-19 pandemic. Including operating income, total expenses for OIG operations were $37.6 million in 2022. The OIG did not have any single-year capital spending during 2022.

2023 Operating Expense Budget

The 2023 budget for OIG operations, excluding operating income, is $54.1 million, which is $3.7 million, or 7.2 percent, higher than 2022 actual expenses. This increase is driven by employment growth within existing authorized staffing levels, funding for the compensation and benefit programs, and travel, training, and equipment purchases. Including operating income, the 2023 budget for OIG operations is $37.9 million. The OIG's single-year capital budget is $0.2 million, which will be used to replace existing vehicles and purchase equipment.

The OIG has 142 authorized positions for 2023, with no increase to the authorized number from 2022.

Federal Reserve Banks Budgets

Each Reserve Bank establishes operating goals for the coming year that are aligned with the System's key strategic objectives, devises strategies for attaining those goals, estimates required resources, and monitors results. The Reserve Banks structure their budgets around specific functional areas reflecting the core responsibilities of the Federal Reserve:

- contributing to the formulation of monetary policy and enhancing monetary policy implementation to become more effective, flexible, and resilient, through public communication, outreach, and economic education
- promoting financial stability through effective monitoring, analysis, and policy development
- promoting safety and soundness of financial institutions through effective supervision
- leading efforts to enhance the security, resiliency, functionality, and efficiency of services provided to financial institutions and the public

The Reserve Bank budget process is as follows:

- The Conference of Presidents, operating through its Committee on Spending Stewardship, defines, in close consultation with the Board's Committee on Federal Reserve Bank Affairs (BAC), key strategic objectives for the System. Considering longer-term environmental trends and historical growth rates of expense, these governance bodies articulate an aggregate System-level growth expectation for a multiyear period.
- The Reserve Banks develop budgets that reflect this direction, through framing and making appropriate trade-offs, and senior leadership in the Reserve Banks reviews the budgets for alignment with Reserve Bank and System priorities.
- The Reserve Banks submit for Board review preliminary budget information, including documentation to support the budget request.
- Board staff analyzes the Banks' budgets, both individually and in the context of System initiatives and areas such as payments and IT, where there is a high degree of cooperation among the Banks to support Systemwide operations and initiatives.
- Expenses associated with services provided to the Treasury require authorization from the Bureau of the Fiscal Service.
- The BAC reviews the Banks' budgets.
- The Reserve Banks make any needed changes, and the BAC chair submits the revised budgets to Board members for review and final action.
- Throughout the year, Reserve Bank and Board staffs monitor actual performance and compare it with approved budgets and forecasts.

In addition to the budget approval process, the Reserve Banks must submit proposals for certain capital expenditures to the Board for further review and approval.

Tables D.8, D.9, and D.10 summarize the Reserve Banks' 2022 budgeted and actual expenses and 2023 budgeted expenses by Reserve Bank, functional area, and account classifica-

Table D.8. Operating expenses of the Federal Reserve Banks, by District, 2022–23
Millions of dollars, except as noted

District	2022 budget	2022 actual	Variance 2022 actual to 2022 budget		2023 budget	Variance 2023 budget to 2022 actual	
			Amount	Percent		Amount	Percent
Boston	389.2	377.4	-11.8	-3.0	407.7	30.3	8.0
New York	1245.2	1214.5	-30.6	-2.5	1291.3	76.8	6.3
Philadelphia	231.9	231.6	-0.3	-0.1	232.8	1.2	0.5
Cleveland	317.8	306.6	-11.1	-3.5	304.2	-2.4	-0.8
Richmond	369.2	355.9	-13.3	-3.6	394.2	38.3	10.8
Atlanta	466.9	457.4	-9.6	-2.0	476.6	19.2	4.2
Chicago	489.2	496.2	7.0	1.4	540.1	43.9	8.8
St. Louis	487.4	472.0	-15.4	-3.2	427.9	-44.0	-9.3
Minneapolis	223.4	221.6	-1.7	-0.8	257.1	35.5	16.0
Kansas City	422.8	422.3	-0.4	-0.1	487.9	65.6	15.5
Dallas	290.8	291.3	0.5	0.2	302.2	10.8	3.7
San Francisco	500.8	505.6	4.9	1.0	524.1	18.4	3.6
Total Reserve Bank operating expenses	**5,434.6**	**5,353.0**	**-81.6**	**-1.5**	**5,646.2**	**293.2**	**5.5**

Note: Includes expenses of the FRIT support function and the OEB and reflects allocations for all indirect services. Excludes Reserve Bank capital expenditures as well as assessments by the Board of Governors for costs related to currency and the operations of the Board of Governors and the Consumer Financial Protection Bureau.

Table D.9. Operating expenses of the Federal Reserve Banks, by operating area, 2022–23
Millions of dollars, except as noted

Operating area	2022 budget	2022 actual	Variance 2022 actual to 2022 budget		2023 budget	Variance 2023 budget to 2022 actual	
			Amount	Percent		Amount	Percent
Monetary and economic policy	902.7	896.2	−6.4	−0.7	943.2	47.0	5.2
Services to the U.S. Treasury and other government agencies	728.4	680.4	−48.0	−6.6	721.3	40.9	6.0
Services to financial institutions and the public[1]	1457.3	1459.5	2.2	0.1	1519.8	60.3	4.1
Supervision and regulation	1670.7	1655.3	−15.4	−0.9	1722.1	66.7	4.0
Fee-based services to financial institutions[2]	675.6	661.2	−14.4	−2.1	739.9	78.7	11.9
Total Reserve Bank operating expenses[3]	5,434.6	5,353.0	−81.6	−1.5	5,646.2	293.2	5.5

1 Services to financial institutions and the public includes cash services.
2 Includes operating expenses related to development of the FedNow Service.
3 Operating expenses exclude pension costs, reimbursements, and operating expense of the Board of Governors (see table D.4).

Table D.10. Operating expenses of the Federal Reserve Banks, by account classification, 2022–23
Millions of dollars, except as noted

Account classification	2022 budget	2022 actual	Variance 2022 actual to 2022 budget		2023 budget	Variance 2023 budget to 2022 actual	
			Amount	Percent		Amount	Percent
Salaries and other benefits[1]	4,020.6	3,986.4	−34.2	−0.8	4,195.4	209.0	5.2
Building	283.4	282.3	−1.1	−0.4	301.8	19.4	6.9
Software costs	416.7	416.2	−0.4	−0.1	498.7	82.5	19.8
Equipment	251.5	249.6	−1.9	−0.7	231.2	−18.5	−7.4
Recoveries	−124.7	−254.6	−129.9	104.1	−236.2	18.4	−7.2
Expenses capitalized	−137.8	−139.0	−1.1	0.8	−164.8	−25.8	18.6
All other[2]	725.0	812.0	87.0	12.0	820.2	8.2	1.0
Total Reserve Bank operating expenses	**5,434.6**	**5,353.0**	**−81.6**	**−1.5**	**5,646.2**	**293.2**	**5.5**

1 Includes salaries, other personnel expense, and retirement and other employment benefit expenses. It does not include pension expenses related to all the participants in the Retirement Plan for Employees of the Federal Reserve System and the Reserve Bank participants in the Benefit Equalization Plan and the Supplemental Retirement Plan for Select Officers of the Federal Reserve Banks. These expenses are recorded as a separate line item in the financial statements; see "Table G.9. Income and expenses of the Federal Reserve Banks, by Bank" in Appendix G, "Statistical Tables."

2 Includes fees, materials and supplies, travel, communications, and shipping.

tion.[9] Table D.11 shows the Reserve Banks' budgeted and actual employment for 2022 and budgeted employment for 2023.[10] In addition, table D.12 shows the Reserve Banks' budgeted and actual capital expenditures for 2022 and budgeted capital for 2023.

2022 Budget Performance

Total 2022 operating expenses for the Reserve Banks were $5,353.0 million, which is $81.6 million, or 1.5 percent, less than the approved 2022 budget of $5,434.6 million. More than half of the expense underrun is due to updated assumptions for staffing across several programs in the Treasury portfolio including forecasting and financing modernizations, and Pay.gov. Also contributing to the underrun in Treasury are updated decisions in the 2022 forecast following the final authorization from Fiscal Service and the decision to discontinue the Transforming Tax Collection program (T2C).[11] Additionally, the expense underrun is driven, to a lesser degree, by higher-than-budgeted turnover and extended lags in filling open positions in supervision and across several business areas. Actual headcount was 20,831, an underrun of 381 headcount, or 1.8 percent, from 2022 budgeted staffing levels.

9 Additional information about the operating expenses of each of the Reserve Banks can be found in Appendix G, "Statistical Tables" (see "Table G.9. Income and expenses of the Federal Reserve Banks, by Bank").

10 As part of the transition to the new Enterprise Resource Planning tool, and in line with industry standards, Reserve Banks will use the updated staffing metric, full-time equivalents (FTE). Starting in 2023, employment will be represented as FTE.

11 On September 9, 2022, Fiscal Service notified the Federal Reserve Bank of Cleveland of their decision to discontinue the T2C program.

Table D.11. Employment at the Federal Reserve Banks, by District, and at FRIT and OEB, 2022–23

District	2022 budget	2022 actual	Variance 2022 actual to 2022 budget		2023 budget	Variance 2023 budget to 2022 actual	
			Amount	Percent		Amount	Percent
Boston	1,323	1,263	−58	−4.4	1,285	22	1.7
New York	3,146	2,957	−189	−6.0	2,981	24	0.8
Philadelphia	916	873	−43	−4.7	861	−12	−1.4
Cleveland	1,254	1,110	−107	−8.5	1,104	−6	−0.5
Richmond	1,545	1,585	62	4.0	1,548	−37	−2.4
Atlanta	1,726	1,699	−30	−1.7	1,729	30	1.8
Chicago	1,709	1,679	−30	−1.8	1,679	0	0.0
St. Louis	1,394	1,450	56	4.0	1,447	−3	−0.2
Minneapolis	1,145	1,069	−76	−6.6	1,071	2	0.2
Kansas City	2,146	2,182	32	1.5	2,132	−50	−2.3
Dallas	1,363	1,292	−70	−5.1	1,281	−11	−0.9
San Francisco	1,880	1,909	30	1.6	1,864	−45	−2.4
Total, all Districts	**19,547**	**19,068**	**−423**	**−2.2**	**18,981**	**−87**	**−0.5**
Federal Reserve Information Technology	1,600	1,703	80	5.0	1,723	20	1.2
Office of Employee Benefits	65	60	−5	−7.7	58	−2	−3.1
Total, System	**21,212**	**20,831**	**−381**	**−1.8**	**20,763**	**−68**	**−0.3**

Note: For 2022 budgeted and actual, employment numbers presented are represented in headcount. For 2023, employment numbers presented are full-time equivalents (FTE) for the Reserve Banks. Headcount is the actual number of people employed (actual) or expected to be employed (projected) at a given date and includes full-time and part-time staff. FTE represent an employee's scheduled hours divided by the employer's hours for a full-time workweek. Part-time workers' hours can be fractional, which means the variance may be off slightly.

The Reserve Banks' 2022 capital expenditures were less than budgeted by $91.7 million, or 14.8 percent, primarily driven by planned delays to projects as a result of environmental factors, such as supply chain issues affecting the availability of materials and equipment. This underrun is largely offset by costs associated with the new data center, which was not originally included in the 2022 budget.

2023 Operating Expense Budget

The 2023 operating budgets of the Reserve Banks total $5,646.2 million, which is $293.2 million, or 5.5 percent, higher than 2022 actual expenses.[12] Growth in monetary policy expense reflects increased resources dedicated to researching inflation and enhancing existing and developing new inflation indicators. The increase in Treasury is primarily attributable to infrastructure and support costs for the migration of applications to the cloud and data center as well as other technology initiatives. Additionally, cash investments are to retain resources across Reserve Banks because of recent labor shortages and additional resources needed to support the produc-

[12] On December 15, 2022, the Board approved the 2023 Reserve Bank operating budgets totaling $5,646.2 million. Additional information is available at https://www.federalreserve.gov/foia/budgets.htm.

Table D.12. Capital expenditures of the Federal Reserve Banks, by District, and of FRIT and OEB, 2022–23

Millions of dollars, except as noted

District	2022 budget	2022 actual	Variance 2022 actual to 2022 budget		2023 budget	Variance 2023 budget to 2022 actual	
			Amount	Percent		Amount	Percent
Boston	56.2	66.2	10.0	17.8	53.5	–12.6	–19.1
New York	70.1	58.9	–11.1	–15.9	145.8	86.8	147.3
Philadelphia	24.2	17.4	–6.8	–28.3	15.7	–1.7	–9.6
Cleveland	41.4	32.6	–8.9	–21.4	29.7	–2.9	–8.8
Richmond	18.6	13.5	–5.1	–27.3	17.0	3.5	26.2
Atlanta	57.2	20.4	–36.8	–64.4	80.9	60.5	297.3
Chicago	54.2	47.4	–6.8	–12.6	43.8	–3.6	–7.6
St. Louis	22.3	16.0	–6.3	–28.4	39.0	23.1	144.4
Minneapolis	20.3	14.6	–5.8	–28.3	34.2	19.6	134.5
Kansas City	51.0	39.3	–11.8	–23.0	69.0	29.7	75.7
Dallas	31.6	36.4	4.8	15.3	45.3	8.9	24.3
San Francisco	91.8	87.1	–4.7	–5.1	134.5	47.3	54.3
Total, all Districts	**539.0**	**449.7**	**–89.3**	**–16.6**	**708.4**	**258.7**	**57.5**
Federal Reserve Information Technology	82.4	80.1	–2.3	–2.8	179.8	99.7	124.5
Office of Employee Benefits	0.2	0.1	–0.1	–66.0	0.1	0.0	17.7
Total	**621.5**	**529.8**	**–91.7**	**–14.8**	**888.2**	**358.4**	**67.6**

tion and development phase of NextGen.[13] Supervision continues to focus on areas of risk and allocating resources to the highest priorities. Investments in fee-based services align with the Federal Reserve System's commitment to modernize the nation's payment system and establish a safe and efficient foundation for the future (FedNow[SM] Service), and 2023 spend is specifically related to IT infrastructure and cloud services.

Total 2023 budgeted employment for the Reserve Banks, Federal Reserve Information Technology (FRIT), and the Office of Employee Benefits (OEB) is relatively flat, 20,763 full-time equivalents (FTE), a decrease of 68, or 0.3 percent, from 2022 actual employment levels.[14]

Reserve Bank officer and staff personnel expenses for 2023 total $4,195.4 million, an increase of $209.0 million, or 5.2 percent, from 2022 actual expenses. The increase reflects expenses

[13] FedCash (formerly Cash Product Office) is transitioning the existing fleet of high-speed currency processing machines and the sensor suite from the Banknote Processing System platform to the future next-generation (NextGen) processing infrastructure.

[14] As noted in Table D.11, 2022 actuals are represented in headcount while 2023 budgeted employment is represented as full-time equivalents. The variance between 2022 actuals and 2023 budget may be slightly off due to part-time workers.

associated with additional staff, salary administration, variable pay, and retirement and other benefit costs.[15]

The 2023 Reserve Bank budgets include a salary administration program for eligible officers, senior professionals, and staff totaling $174.5 million and a variable pay program totaling $265.3 million.

2023 Capital Budgets

The 2023 capital budgets for the Reserve Banks, FRIT, and OEB total $888.2 million. The increase in the 2023 capital budget is $358.4 million, or 67.6 percent, greater than the 2022 actual levels of $529.8 million, largely reflecting strategic IT initiatives, investments in cash services, and multiyear building projects. Initiatives in the 2023 capital budget support the development and deployment phase of NextGen, target major workspace renovations, address aging building infrastructure in several Reserve Banks, continue data center modernization, and improve IT infrastructure.

Capital Expenditures Designated for Conditional Approval

The BAC chair designated projects with an aggregate cost of $218.3 million in 2023 for conditional approval, requiring additional review and approval by the director of the Board's Division of Reserve Bank Operations and Payment Systems before the funds are committed.[16] The expenditures designated for conditional approval include a new facility, a cash vault, and renovations to the main lobby of a Reserve Bank. Technology projects include investments for the FedNow Service, data center modernization, and an initiative to modernize the Markets Group operations platform.

Other Capital Expenditures

Significant capital expenditures (typically expenditures exceeding $1 million) that are not designated for conditional approval include total multiyear budgeted expenditures of $1,781.7 million for 2023 and future years, of which the single-year 2023 budgeted expenditures are $570.7 million. This category includes building investments to support security and resiliency, and infrastructure upgrades. IT projects include ongoing IT infrastructure investments, and support for cash, priced services, monetary policy, and supervision initiatives.

Capital initiatives that are individually less than $1 million are budgeted at an aggregate amount of $99.3 million for 2023 and include building maintenance expenditures, scheduled software and equipment upgrades, and equipment and furniture replacements.

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[15] The salary administration program includes a budgeted pool for merit increases, equity adjustments, and promotions.

[16] Generally, capital expenditures that are designated for conditional approval include certain building projects, District expenditures that substantially affect or influence future System direction or the manner in which significant services are performed, expenditures that may be inconsistent with System direction or vary from previously negotiated purchasing agreements, and local expenditures that duplicate national efforts.

Currency Budget

The currency budget provides funds to reimburse the Treasury's Bureau of Engraving and Printing (BEP) for expenses related to the production of banknotes, and the Board's activities related to its role as issuing authority of the nation's currency in the form of Federal Reserve notes.[17] As issuing authority, the Board works closely with its strategic partners, such as the Reserve Banks, the Department of the Treasury, the BEP, and the U.S. Secret Service to help maintain the integrity of and public confidence in our nation's currency.

The Board works to ensure that the notes meet quality standards from production through destruction, monitors counterfeiting risks and threats for each denomination, contributes to the development of banknote security features and new design concepts, and conducts adversarial analysis to ensure the banknote security features and designs are robust against counterfeiting. The budget includes activities that support its issuing authority role, reimbursements to the BEP for banknote printing, the cost of shipping new currency from the BEP to Reserve Banks and fit currency between Reserve Banks, and funds the Currency Education Program (CEP). The CEP aims to protect and maintain confidence in U.S. currency worldwide by coordinating counterfeit detection training to Reserve Bank and foreign central bank staff, providing information about banknote security features, and conducting outreach to key stakeholders on U.S. Currency Program (USCP) initiatives.

The annual currency budget process is as follows:

- Each year, under authority delegated by the Board, the director of the Division of Reserve Bank Operations and Payment Systems submits a fiscal year print order for notes to the director of the BEP.[18]
- The BEP forecasts expenses for the single-cycle calendar-year and multicycle project budgets. The single-cycle budget included fixed and variable costs for printing Federal Reserve notes and support costs. The multicycle budget includes costs related to significant capital investments. Board staff develop budgets for Board expenses in relation to strategic guidance set by cash leadership.
- The various sections of the budget are independently reviewed by Board staff, who also prepare a consolidated budget recommendation for BAC and Board approval.
- The BAC reviews the proposed currency budget.

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[17] As mandated by the Federal Reserve Act, section 16, the Board reimburses the BEP for all costs related to the production of Federal Reserve notes. Section 16 of the Federal Reserve Act also requires that all costs incurred for the issuing of notes shall be paid for by the Board and included in its assessments to the Reserve Banks. Operations and capital investments of the BEP have been generally financed by a revolving fund that is reimbursed through product sales, nearly all of which are sales of Federal Reserve notes to the Board to fulfill its annual print order.

[18] The Board delivers the annual print order to the BEP director in August of each year, and is available on the Board's website at https://www.federalreserve.gov/paymentsystems/coin_currency_orders.htm.

- The BAC chair submits the proposed currency budget to Board members for review and final action.

2022 Budget Performance

BEP Single-Cycle Operating Costs

BEP single-cycle operating costs were $923.8 million, which was $65.4 million, or 6.6 percent, below the budgeted amount for 2022. The budget underrun is primarily attributable to lower note deliveries in response to changing payment trends. Following updated payment trends, Reserve Bank inventories, and the need to prioritize testing for the next family of notes, BEP and Board staff agreed to reduce note deliveries to 6.0 billion notes for the calendar year 2022.

Board Single-Cycle Operating Costs

Board costs were $56.1 million, which was $14.7 million, or 20.7 percent, under the budgeted amount for 2022. The primary driver was lower currency issuance transportation costs given the reduced number of note deliveries from the BEP. Also contributing to the underrun was the banknote development costs, which were less than budgeted because of lower membership fees, contract terminations for banknote studies, and procurement delays.

2023 Budget

Table D.13 summarizes the 2023 single-cycle currency operating budget of $931.4 million.[19] The 2023 single-cycle operating budget represents a decrease of $48.5 million, or 5.0 percent, from 2022 actual expenses. BEP costs associated with the printing of Federal Reserve notes are 92.2 percent of the operating budget. Board expenses for currency issuance, banknote development, and currency education comprise the remaining 7.8 percent of the operating budget. Table D.14 provides an overview of the multicycle project budget that funds the BEP's capital investments.

BEP Single-Cycle Operating Costs

The proposed 2023 budget to fund the BEP printing and support costs is $858.7 million, which is $65.2 million, or 7.1 percent, lower than 2022 actual expenses.

The budget for fixed printing costs is $587.0 million, which is $25.3 million, or 4.1 percent, lower than 2022 actual expenses. The fixed costs budget decreased due to a change in budget treatment of capital investments.[20] The decrease in fixed costs was slightly offset by increased research and development costs to support testing for the next family of notes.

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[19] For 2022, the Board approved a $25,000 multicycle capital budget for adversarial analysis laboratory equipment.

[20] A portion of the capital investments in the fixed printing costs was moved to the multicycle project budget for note production equipment.

Table D.13. Federal Reserve single-cycle currency budget, 2022–23
Millions of dollars, except as noted

Item	2022 budget	2022 actual	Variance 2022 actual to 2022 budget		2023 budget	Variance 2023 budget to 2022 actual	
			Amount	Percent		Amount	Percent
BEP costs	**989.2**	**923.8**	**−65.4**	**−6.6**	**858.7**	**−65.2**	**−7.1**
Printing Federal Reserve notes	**983.8**	**918.7**	**−65.1**	**−6.6**	**852.5**	**−66.3**	**−7.2**
BEP fixed printing costs	612.5	612.3	−0.2	0	587.0	−25.3	−4.1
BEP variable printing costs	371.3	306.4	−64.8	−17.5	265.5	−40.9	−13.4
BEP support costs	**5.4**	**5.1**	**−0.3**	**−5.9**	**6.2**	**1.1**	**21.8**
Currency reader	1.0	0.8	−0.2	−17.7	1.0	0.2	23.9
Destruction and compliance	4.4	4.3	−0.1	−3.3	5.2	0.9	21.4
Board expenses	**70.8**	**56.1**	**−14.7**	**−20.7**	**72.8**	**16.6**	**29.6**
Currency issuance[1]	37.6	26.5	−11.1	−29.5	33.6	7.1	26.9
Banknote development[2]	27.1	24.2	−2.9	−10.8	32.2	8.1	33.4
Currency education[2]	6.1	5.5	−0.7	−11.2	6.9	1.4	25.8
Operating budget	**1060.0**	**979.9**	**−80.1**	**−7.6**	**931.4**	**−48.5**	**−5.0**

1 This line item was previously identified as Currency transportation. Starting in 2022, the Currency issuance category includes transportation, personnel, and other support costs.
2 Personnel, travel, and training costs were previously displayed as line items in the budget. These costs are now included in the Banknote development and Currency education budget categories that they support.

The budget for variable printing costs is $265.5 million, which is $40.9 million, or 13.4 percent lower than 2022 actual expenses. The decrease is attributable to a decrease in variable printing costs because of the lower expected note deliveries in 2023 than in 2022. The FY 2023 print order is lower to allow the BEP to focus on strategic priorities including deferred equipment maintenance and security testing for the next family of notes.

Table D.14. Multicycle projects in the currency budget, 2022–23
Millions of dollars, except as noted

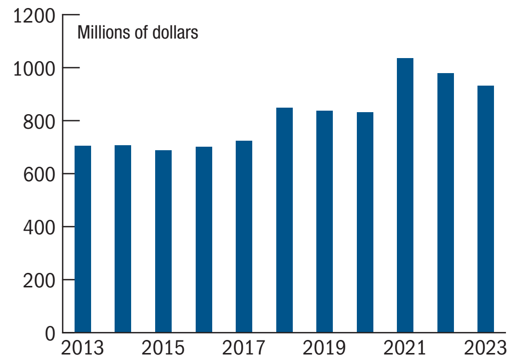
Item	2021 and prior actual	2022 budget	2022 actual	2023 budget	Project lifetime budget
BEP project funding					
Fort Worth facility expansion[1]	200.2	52.8	53.7	28.9	282.8
Washington, D.C., replacement facility[2]	45.4	5.5	20.0	62.3	134.1
Note production equipment[3]	111.9	n/a	n/a	43.8	787.0
Total	**357.5**	**58.3**	**73.7**	**135.0**	**1,204.0**

1 The Board approved a project lifetime budget of $282.8 million and a 2023 forecast of $33.6 million. The Board funded the BEP $4.7 million more than originally forecast in 2022, reducing the 2023 estimate to $28.9 million.
2 The Washington, D.C., replacement facility will seek phased approvals. The BEP's current project total estimate is $1,784.1 million.
3 The Board conditionally approved the budget for Note production equipment. The director of RBOPS will provide final approval when funding is required.

BEP Multicycle Project Operating Costs

The total $1,204.0 million in multicycle project funding includes $416.9 million of approved funding for the BEP's two construction projects, the Fort Worth facility (WCF) expansion and the Washington, D.C., replacement facility (DCRF). The multicycle project budget also includes $787.0 million of conditionally approved funding for the BEP's note production equipment.

Figure D.4. Federal Reserve costs for currency, 2013–2023



Note: For 2023, budgeted.

In August 2021, the Board approved a total WCF program budget of $282.8 million to expand production capabilities, and 2023 funding of $28.9 million will be used to complete and close out the project. The Board approved a total of $134.1 million in the 2023 multicycle budget for the current phase of the DCRF project. The current estimated total cost is $1,784.1 million. The multicycle project budget includes $62.3 million in 2023 funds for design and specific construction costs. After additional design documents and construction estimates become available, Board staff will submit a budget request for the next project phase.

Starting in 2023, the multicycle project budget will include funds for note production equipment for both BEP facilities. The multicycle project budget includes $43.8 million in 2023 funds. Final approval is contingent upon receiving additional information and when funding is required.

Board Single-Cycle Operating Costs

The Board costs budget is $72.8 million, which is $16.6 million, or 29.6 percent, higher than 2022 actual costs. The increase is primarily driven by increases for currency issuance and banknote development costs.

The currency issuance budget increases are primarily attributable to higher intra-System shipment costs to rebalance banknote inventories across the System given the lower print order. In addition, transportation contract prices are increasing due to various factors, such as labor and fuel costs. The budget includes two additional positions and contract support to assist with upcoming changes to the USCP and the Board's strategic priorities.

The banknote development increases are primarily attributable to an increase in membership fees to fund a vendor management contract to mitigate program risks. Additionally, higher contract costs will further support security feature testing and the banknote development process.

The currency education program will focus on expanding its domestic and international stakeholder education outreach and maintaining the currency website. The increase is attributable to higher personnel costs and procuring a tool to support stakeholder outreach efforts.

The currency issuance, banknote development, and currency education budget categories also include personnel, travel, training, and support and overhead costs.[21]

[21] The currency budget includes support and overhead costs for enterprise IT, facilities, law enforcement, human resources, and other services.

E | Record of Policy Actions of the Board of Governors

Policy actions of the Board of Governors are presented pursuant to section 10 of the Federal Reserve Act. That section provides that the Board shall keep a record of all questions of policy determined by the Board and shall include in its annual report to Congress a full account of such actions. This appendix provides a summary of policy actions in 2022. Policy actions were implemented through (1) rules and regulations, (2) policy statements and other actions, and (3) discount rates for depository institutions. Policy actions were approved by all Board members in office, unless indicated otherwise.[1] More information on the actions is available from the relevant *Federal Register* notices or other documents (see links in footnotes) or on request from the Board's Freedom of Information Office. This appendix also provides information on the Board and the Government Performance and Results Act.

For more information on the Federal Open Market Committee's (FOMC's) policy actions relating to open market operations, see Appendix B, "Minutes of Federal Open Market Committee Meetings."

Rules and Regulations

Regulation J (Collection of Checks and Other Items by Federal Reserve Banks and Funds Transfers Through Fedwire)

Effective October 1, 2022. On May 16, 2022, the Board approved a final rule (Docket No. R- 1750) to govern funds transfers through the Federal Reserve Banks' new FedNow Service.[2] The final rule includes (1) changes and clarifications to the regulations governing the Fedwire Funds Service (Fedwire) to reflect the fact that the Reserve Banks will be operating a second funds transfer service in addition to Fedwire, and (2) technical corrections to the regulations governing the Reserve Banks' check service.

Voting for this action: Chair Pro Tempore Powell and Governors Brainard, Bowman, and Waller.

Regulation II (Debit Card Interchange Fees and Routing)

Effective July 1, 2023. On October 3, 2022, the Board adopted a final rule (Docket No. R-1748) to (1) specify that the requirement that each debit card transaction must be able to be processed on

[1] Chair Powell served as Chair Pro Tempore from February 5 through May 23, 2022, when he was sworn in for a second term as Chair. Governor Brainard was sworn in as Vice Chair, and Governors Cook and Jefferson were sworn in as members of the Board, on May 23, 2022. Vice Chair for Supervision Barr was sworn in on July 19, 2022.

[2] See *Federal Register* notice at https://www.govinfo.gov/content/pkg/FR-2022-06-06/pdf/2022-11090.pdf.

at least two unaffiliated payment card networks applies to card-not-present transactions, such as online payments; (2) clarify the requirement that debit card issuers ensure that at least two unaffiliated networks have been enabled to process a debit card transaction; and (3) standardize and clarify the use of certain terminology.[3]

Voting for this action: Chair Powell, Vice Chair Brainard, Vice Chair for Supervision Barr, and Governors Cook, Jefferson, and Waller. **Voting against this action:** Governor Bowman.

Regulation ZZ (Regulation Implementing the Adjustable Interest Rate (LIBOR) Act)

Effective February 27, 2023. On December 14, 2022, the Board approved a final rule (Docket No. R-1775) to implement the Adjustable Interest Rate (LIBOR) Act.[4] The final rule establishes benchmark replacements based on the Secured Overnight Financing Rate that will replace LIBOR after June 30, 2023, in certain contracts that reference certain tenors of U.S. dollar (USD) LIBOR but do not have terms that provide for the use of a clearly defined and practicable benchmark replacement once USD LIBOR ceases to be published or ceases to be representative. The final rule also restates the safe harbor protections in the LIBOR Act for selection or use of the benchmark replacement selected by the Board and clarifies who is considered a "determining person" able to select a benchmark replacement.

Voting for this action: Chair Powell, Vice Chair Brainard, Vice Chair for Supervision Barr, and Governors Bowman, Cook, Jefferson, and Waller.

Policy Statements and Other Actions

Fedwire Funds Service

On June 21, 2022, the Board approved a notice (Docket No. OP-1613) announcing that the Federal Reserve Banks will adopt the ISO 20022 message format for the Fedwire Funds Service on a single day, March 10, 2025.[5] The Board also announced a revised testing strategy, backout strategy, and other details concerning the implementation of the ISO 20022 message format.

Voting for this action: Chair Powell, Vice Chair Brainard, and Governors Bowman, Cook, Jefferson, and Waller.

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[3] See *Federal Register* notice at https://www.govinfo.gov/content/pkg/FR-2022-10-11/pdf/2022-21838.pdf.
[4] See *Federal Register* notice at https://www.govinfo.gov/content/pkg/FR-2023-01-26/pdf/2023-00213.pdf.
[5] See *Federal Register* notice at https://www.govinfo.gov/content/pkg/FR-2022-10-24/pdf/2022-23002.pdf.

Framework for the Supervision of Insurance Organizations

Effective November 3, 2022. On September 26, 2022, the Board approved final guidance (Docket No. OP-1765) to adopt a supervisory framework for depository institution holding companies significantly engaged in insurance activities, referred to as "supervised insurance organizations."[6] The framework is designed specifically to reflect the differences between banking and insurance, and applies supervisory guidance and resources based explicitly on a supervised insurance organization's complexity and individual risk profile. In addition, the framework establishes a supervisory ratings system for these firms and emphasizes that the Board will rely to the fullest extent possible on the work of other relevant supervisors, in particular, reports and other supervisory information provided by state insurance regulators.

Voting for this action: Chair Powell, Vice Chair Brainard, Vice Chair for Supervision Barr, and Governors Bowman, Cook, Jefferson, and Waller.

Guidelines for Evaluating Account and Services Requests

Effective August 19, 2022. On August 14, 2022, the Board approved final guidance (Docket No. OP-1747) on account access guidelines for Federal Reserve Banks to use in evaluating requests for access to Reserve Bank master accounts and financial services.[7] The guidelines establish a transparent, risk-based, and consistent set of factors for reviewing such requests as well as include a tiered review framework to provide additional clarity on the level of due diligence and scrutiny that Reserve Banks will apply to different types of institutions that have varying degrees of risk.

Voting for this action: Chair Powell, Vice Chair Brainard, Vice Chair for Supervision Barr, and Governors Bowman, Cook, Jefferson, and Waller.

Interagency Questions and Answers Regarding Flood Insurance

On April 20, 2022, the Board approved guidance (Docket No. R-1742, OP-1720), published jointly on May 31, 2022, with the Office of the Comptroller of the Currency, Federal Deposit Insurance Corporation, Farm Credit Administration, and National Credit Union Administration (together with the Board, the agencies), to reorganize, revise, and expand the Interagency Questions and Answers Regarding Flood Insurance.[8] The revised guidance will assist lenders in meeting their responsibilities under federal flood insurance law and increase public understanding of the agencies' respective flood insurance regulations. The revised questions and answers cover a broad range of flood insurance topics, including the escrow of flood insurance premiums, the detached-

[6] See *Federal Register* notice at https://www.govinfo.gov/content/pkg/FR-2022-10-04/pdf/2022-21414.pdf.
[7] See *Federal Register* notice at https://www.govinfo.gov/content/pkg/FR-2022-08-19/pdf/2022-17885.pdf.
[8] See *Federal Register* notice at https://www.govinfo.gov/content/pkg/FR-2022-05-31/pdf/2022-10414.pdf.

structure exemption to the requirement to purchase flood insurance, force placement procedures, and private flood insurance.

Voting for this action: Chair Pro Tempore Powell and Governors Brainard, Bowman, and Waller.

Payment System Risk Policy

On November 29, 2022, the Board approved amendments to part II of its Policy on Payment System Risk (PSR policy) (Docket No. OP-1749).[9] Specifically, the amendments (1) expand the eligibility of depository institutions to request collateralized intraday credit from the Federal Reserve Banks while reducing administrative steps for requesting collateralized intraday credit, (2) clarify the eligibility standards for accessing uncollateralized intraday credit from Reserve Banks and modify the impact of a holding company's or affiliate's supervisory rating on an institution's eligibility to request uncollateralized intraday credit capacity, and (3) support the launch of the FedNow Service (for example, by redefining the term "business day" to reflect the FedNow Service's 24x7x365 operations). In addition, the amendments simplify the Federal Reserve Policy on Overnight Overdrafts and incorporate the Overnight Overdrafts policy as part III of the PSR policy.

Voting for this action: Chair Powell, Vice Chair Brainard, Vice Chair for Supervision Barr, and Governors Bowman, Cook, Jefferson, and Waller.

Interest on Reserves

On March 16, 2022, the Board approved raising the interest rate paid on reserve balances from 0.15 percent to 0.4 percent, effective March 17, 2022.[10] This action was taken to support the FOMC's decision on March 16, 2022, to raise the target range for the federal funds rate by 25 basis points, to a range of ¼ to ½ percent.

Voting for this action: Chair Pro Tempore Powell and Governors Bowman, Brainard, and Waller.

On May 4, 2022, the Board approved raising the interest rate paid on reserve balances from 0.4 percent to 0.9 percent, effective May 5, 2022.[11] This action was taken to support the FOMC's decision on May 4, 2022, to raise the target range for the federal funds rate by 50 basis points, to a range of ¾ to 1 percent.

Voting for this action: Chair Pro Tempore Powell and Governors Bowman, Brainard, and Waller.

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[9] See *Federal Register* notice at https://www.govinfo.gov/content/pkg/FR-2022-12-08/pdf/2022-26615.pdf, which also provides information on the effective dates for the amendments.

[10] See press release at https://www.federalreserve.gov/newsevents/pressreleases/monetary20220316a1.htm.

[11] See press release at https://www.federalreserve.gov/newsevents/pressreleases/monetary20220504a1.htm.

On June 15, 2022, the Board approved raising the interest rate paid on reserve balances from 0.9 percent to 1.65 percent, effective June 16, 2022.[12] This action was taken to support the FOMC's decision on June 15, 2022, to raise the target range for the federal funds rate by 75 basis points, to a range of 1½ to 1¾ percent.

Voting for this action: Chair Powell, Vice Chair Brainard, and Governors Bowman, Cook, Jefferson, and Waller.

On July 27, 2022, the Board approved raising the interest rate paid on reserve balances from 1.65 percent to 2.4 percent, effective July 28, 2022.[13] This action was taken to support the FOMC's decision on July 27, 2022, to raise the target range for the federal funds rate by 75 basis points, to a range of 2¼ to 2½ percent.

Voting for this action: Chair Powell, Vice Chair Brainard, Vice Chair for Supervision Barr, and Governors Bowman, Cook, Jefferson, and Waller.

On September 21, 2022, the Board approved raising the interest rate paid on reserve balances from 2.4 percent to 3.15 percent, effective September 22, 2022.[14] This action was taken to support the FOMC's decision on September 21, 2022, to raise the target range for the federal funds rate by 75 basis points, to a range of 3 to 3¼ percent.

Voting for this action: Chair Powell, Vice Chair Brainard, Vice Chair for Supervision Barr, and Governors Bowman, Cook, Jefferson, and Waller.

On November 2, 2022, the Board approved raising the interest rate paid on reserve balances from 3.15 percent to 3.9 percent, effective November 3, 2022.[15] This action was taken to support the FOMC's decision on November 2, 2022, to raise the target range for the federal funds rate by 75 basis points, to a range of 3¾ to 4 percent.

Voting for this action: Chair Powell, Vice Chair Brainard, Vice Chair for Supervision Barr, and Governors Bowman, Cook, Jefferson, and Waller.

On December 14, 2022, the Board approved raising the interest rate paid on reserve balances from 3.9 percent to 4.4 percent, effective December 15, 2022.[16] This action was taken to support the FOMC's decision on December 14, 2022, to raise the target range for the federal funds rate by 50 basis points, to a range of 4¼ to 4½ percent.

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[12] See press release at https://www.federalreserve.gov/newsevents/pressreleases/monetary20220615a1.htm.
[13] See press release at https://www.federalreserve.gov/newsevents/pressreleases/monetary20220727a1.htm.
[14] See press release at https://www.federalreserve.gov/newsevents/pressreleases/monetary20220921a1.htm.
[15] See press release at https://www.federalreserve.gov/newsevents/pressreleases/monetary20221102a1.htm.
[16] See press release at https://www.federalreserve.gov/newsevents/pressreleases/monetary20221214a1.htm.

Voting for this action: Chair Powell, Vice Chair Brainard, Vice Chair for Supervision Barr, and Governors Bowman, Cook, Jefferson, and Waller.

Discount Rates for Depository Institutions in 2022

Under the Federal Reserve Act, the boards of directors of the Federal Reserve Banks must establish rates on discount window loans to depository institutions at least every 14 days, subject to review and determination by the Board of Governors. Therefore, about every two weeks the Board considers proposals by the Reserve Banks for the level of the primary credit rate and for the formulas used to compute the secondary and seasonal credit rates.[17] For the levels of Federal Reserve Bank interest rates on loans to depository institutions at year-end, see table E.1.[18]

Table E.1. Federal Reserve Bank interest rates on loans to depository institutions, December 31, 2022
Percent

Reserve Bank	Primary credit	Secondary credit	Seasonal credit
All banks	4.50	5.00	4.40

Primary, Secondary, and Seasonal Credit

Primary credit, the Federal Reserve's main lending program for depository institutions, is extended at the primary credit rate. It is made available, with minimal administration, as a source of liquidity to depository institutions that, in the judgment of the lending Federal Reserve Bank, are in generally sound financial condition. During 2022, the Board approved seven increases in the primary credit rate, bringing the rate from ¼ percent to 4½ percent.

Following changes to the primary credit rate program announced by the Board on March 15, 2020, in 2022 depository institutions could borrow primary credit for periods as long as 90 days, prepayable and renewable by the borrower on a daily basis.[19]

Secondary credit is available in appropriate circumstances to depository institutions that do not qualify for primary credit. The secondary credit rate is set at a spread above the primary credit rate. Throughout 2022, the spread was set at 50 basis points. At year-end, the secondary credit rate was 5 percent.

Seasonal credit is available to smaller depository institutions to meet liquidity needs that arise from regular swings in their loans and deposits. The rate on seasonal credit is calculated every

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[17] See the minutes of the Board of Governors discount rate meetings at https://www.federalreserve.gov/monetarypolicy/discountrate.htm.

[18] For current and historical discount rates, see https://www.frbdiscountwindow.org.

[19] See press release at https://www.federalreserve.gov/newsevents/pressreleases/monetary20200315b.htm.

two weeks as an average of selected money market yields, typically resulting in a rate close to the target range for the federal funds rate. At year-end, the seasonal credit rate was 4.40 percent.

Votes on Changes to Discount Rates for Depository Institutions

During 2022, there were seven increases in the primary credit rate, and the Board approved proposals by the Reserve Banks to renew the formulas used to compute the secondary and seasonal credit rates. Details on the seven actions by the Board to approve increases in the primary credit rate are provided below.

March 16, 2022. Effective March 17, 2022, the Board approved actions taken by the boards of directors of the Federal Reserve Banks of Boston, Philadelphia, Cleveland, Richmond, Atlanta, Chicago, St. Louis, Minneapolis, Kansas City, and San Francisco to increase the primary credit rate from ¼ percent to ½ percent. On March 17, 2022, the Board approved identical actions subsequently taken by the boards of directors of the Federal Reserve Banks of New York and Dallas, effective immediately.

Voting for this action: Chair Pro Tempore Powell and Governors Brainard, Bowman, and Waller.

May 4, 2022. Effective May 5, 2022, the Board approved actions taken by the boards of directors of all 12 Federal Reserve Banks to increase the primary credit rate from ½ percent to 1 percent.

Voting for this action: Chair Pro Tempore Powell and Governors Brainard, Bowman, and Waller.

June 15, 2022. Effective June 16, 2022, the Board approved actions taken by the board of directors of the Federal Reserve Bank of Minneapolis to increase the primary credit rate from 1 percent to 1¾ percent. On June 16, 2022, the Board approved identical actions subsequently taken by the boards of directors of the Federal Reserve Banks of Boston, New York, Philadelphia, Cleveland, Richmond, Chicago, St. Louis, Kansas City, and Dallas, effective immediately. On June 17, 2022, the Board approved identical actions subsequently taken by the boards of directors of the Federal Reserve Banks of Atlanta and San Francisco, effective immediately.

Voting for this action: Chair Powell, Vice Chair Brainard, and Governors Bowman, Waller, Cook, and Jefferson.

July 27, 2022. Effective July 28, 2022, the Board approved actions taken by the boards of directors of the Federal Reserve Banks of Boston, New York, Philadelphia, Cleveland, Richmond, Atlanta, Chicago, Kansas City, Dallas, and San Francisco to increase the primary credit rate from 1¾ percent to 2½ percent. On July 28, 2022, the Board approved identical actions subsequently taken by the boards of directors of the Federal Reserve Banks of St. Louis and Minneapolis, effective immediately.

Voting for this action: Chair Powell, Vice Chair Brainard, Vice Chair for Supervision Barr, and Governors Bowman, Waller, Cook, and Jefferson.

September 21, 2022. Effective September 22, 2022, the Board approved actions taken by the boards of directors of the Federal Reserve Banks of Boston, Philadelphia, Cleveland, Richmond, Atlanta, Chicago, St. Louis, Kansas City, and Dallas to increase the primary credit rate from 2½ percent to 3¼ percent. On September 22, 2022, the Board approved identical actions subsequently taken by the boards of directors of the Federal Reserve Banks of New York, Minneapolis, and San Francisco, effective immediately.

Voting for this action: Chair Powell, Vice Chair Brainard, Vice Chair for Supervision Barr, and Governors Bowman, Waller, Cook, and Jefferson.

November 2, 2022. Effective November 3, 2022, the Board approved actions taken by the boards of directors of the Federal Reserve Banks of Boston, Cleveland, Richmond, Atlanta, Chicago, St. Louis, Minneapolis, Dallas, and San Francisco to increase the primary credit rate from 3¼ percent to 4 percent. On November 3, 2022, the Board approved identical actions subsequently taken by the boards of directors of the Federal Reserve Banks of New York, Philadelphia, and Kansas City, effective immediately.

Voting for this action: Chair Powell, Vice Chair Brainard, Vice Chair for Supervision Barr, and Governors Bowman, Waller, Cook, and Jefferson.

December 14, 2022. Effective December 15, 2022, the Board approved actions taken by the boards of directors of all 12 Federal Reserve Banks to increase the primary credit rate from 4 percent to 4½ percent.

Voting for this action: Chair Powell, Vice Chair Brainard, Vice Chair for Supervision Barr, and Governors Bowman, Waller, Cook, and Jefferson.

The Board of Governors and the Government Performance and Results Act

Overview

The Government Performance and Results Act (GPRA) of 1993, as amended by the GPRA Modernization Act of 2010, requires federal agencies to prepare a strategic plan covering a multiyear period and to submit an annual performance plan and an annual performance report. Although the Board is not covered by GPRA, the Board voluntarily complies with the spirit of the Act and, like other federal agencies, publicly publishes a multiyear *Strategic Plan* as well as an *Annual Performance Plan* and an *Annual Performance Report*.[20]

Strategic Plan, Performance Plan, and Performance Report

On December 27, 2019, the Board published the *Strategic Plan 2020–23*, which outlines the organization's priorities across five functional areas—Monetary Policy and Financial Stability, Supervision, Payment System and Reserve Bank Oversight, Public Engagement and Community Development, and Mission Enablement—for maintaining the stability, integrity, and efficiency of the nation's monetary, financial, and payments systems. In formulating the *Strategic Plan 2020–23*, the Board identified and prioritized the goals and objectives paramount to advancing the organization's mission while allowing for appropriate flexibility to respond to emerging and evolving challenges.

The *Annual Performance Plan* sets forth the projects and initiatives in support of the Board's *Strategic Plan*'s goals and objectives during a one-year period. The *Annual Performance Plan* helps the organization identify and prioritize investments and dedicate sufficient resources across the five functions to meet its mission, while maintaining ongoing operations.

The *Annual Performance Report* summarizes the Board's accomplishments throughout the performance year toward achieving the goals and objectives identified in that year's *Annual Performance Plan*. The *Annual Performance Report* provides transparency into the organization's activities and helps the Board to communicate the continued fulfillment of its dual mandate to the U.S. Congress and the public.

Ultimately, the organization's planning and reporting processes enable the Board to identify, prioritize, and progress those activities most critical to advancing the organization's work.

[20] The *Strategic Plan*, *Annual Performance Plan*, and *Annual Performance Report* are available on the Federal Reserve Board's website at https://www.federalreserve.gov/publications/gpra.htm.

F | Litigation

The Board of Governors was a party in 10 lawsuits or appeals filed in 2022 and was a party in 6 other cases pending from previous years, for a total of 16 cases. In 2021, the Board was a party in a total of 10 cases. As of December 31, 2022, nine cases were pending.

Pending

Custodia Bank v. Board of Governors and Federal Reserve Bank of Kansas City, No. 22-cv-125 (D. Wyoming, filed June 7, 2022), is an Administrative Procedure Act and constitutional law challenge regarding the issuance of a Reserve Bank master account.

Cunningham v. Board of Governors, No. 22-1311 (D.C. Circuit, filed December 8, 2022), is a petition for review of a Board order approving the acquisition of a bank under the Bank Holding Company Act.

Fruge v. Board of Governors, No. 22-5307 (D.C. Circuit, filed November 22, 2022), is an appeal of an order granting summary judgment for the Board in an action claiming retaliation for protected disclosures.

Judicial Watch v. Board of Governors, No. 22-cv-37 (D. District of Columbia, filed January 18, 2022), is an action under the Freedom of Information Act.

Judicial Watch v. Board of Governors, No. 22-cv-38 (D. District of Columbia, filed January 18, 2022), is an action under the Freedom of Information Act.

Judicial Watch v. Board of Governors, No. 22-cv-40 (D. District of Columbia, filed January 18, 2022), is an action under the Freedom of Information Act.

Linney's Pizza, LLC v. Board of Governors, No. 22-cv-71 (E.D. Kentucky, filed December 9, 2022), is an Administrative Procedure Act challenge to the debit interchange fee provisions of the Board's Regulation II.

The Revolving Door Project v. Board of Governors, No. 22-cv-3620 (D. District of Columbia, filed December 2, 2022), is an action under the Freedom of Information Act.

Smith and Kiolbasa v. Board of Governors, No. 21-9538 (10th Circuit, filed April 21, 2021), is a petition for review of Board prohibition orders under the Federal Deposit Insurance Act.

Resolved

Bernstein v. Federal Reserve et al., No. 21-cv-8174 (D. Arizona, filed August 3, 2021), was an action alleging fraud and conspiracy involving multiple defendants. On January 31, 2022, the court dismissed the claims against the Board.

Fruge v. Board of Governors, No. 20-cv-2811 (D. District of Columbia, filed October 2, 2020), was an action claiming retaliation for protected disclosures. On September 29, 2022, the court granted the Board's motion for summary judgment.

Greenspan v. Board of Governors, No. 21-cv-1968 (D. District of Columbia, filed July 20, 2021), was an action under the Freedom of Information Act. On December 1, 2022, the court granted the Board's motion for summary judgment.

Judicial Watch v. Board of Governors, No. 22-cv-39 (D. District of Columbia, filed January 18, 2022), was an action under the Freedom of Information Act. On August 9, 2022, the case was dismissed pursuant to a stipulation of the parties.

Junk v. Board of Governors, No. 19-3125 (2d Circuit, filed September 27, 2019), was an appeal under the Freedom of Information Act. On February 8, 2022, the court of appeals affirmed the district court's grant of summary judgment for the Board.

North Dakota Retail Association et al. v. Board of Governors, No. 21-cv-95 (D. North Dakota, filed April 29, 2021), was an Administrative Procedure Act challenge to the debit interchange fee provisions of the Board's Regulation II. On March 11, 2022, the court granted the Board's motion to dismiss.

North Dakota Retail Association et al. v. Board of Governors, No. 22-1639 (8th Circuit, filed March 25, 2022), was an appeal of an order dismissing an Administrative Procedure Act challenge to the debit interchange fee provisions of the Board's Regulation II. On December 14, 2022, the court of appeals affirmed the dismissal.

G | Statistical Tables

This appendix includes 13 statistical tables that provide updated historical data concerning Board and System operations and activities.

Table G.1. Federal Reserve open market transactions, 2022
Millions of dollars

Type of security and transaction	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total
U.S. Treasury securities[1]													
Outright transactions[2]													
Treasury bills													
Gross purchases	0	0	0	0	0	0	0	0	0	0	0	0	0
Gross sales	0	0	0	0	0	0	0	0	0	0	0	0	0
Exchanges	84,520	81,097	87,915	84,046	88,926	84,069	83,383	86,352	65,740	68,730	82,209	69,001	965,988
For new bills	84,520	81,097	87,915	84,046	88,926	84,069	83,383	86,352	65,740	68,730	82,209	69,001	965,988
Redemptions	0	0	0	0	0	0	0	0	16,357	13,627	0	6,535	36,519
Others up to 1 year													
Gross purchases	5,068	1,620	0	0	0	0	0	0	0	63	0	0	6,751
Gross sales	0	0	0	0	0	0	0	0	0	0	0	0	0
Exchanges	−51,129	−97,897	−50,275	−23,854	−122,435	−18,255	−12,108	−95,871	0	0	−49,972	0	−521,796
Redemptions	0	0	0	0	0	30,000	29,996	30,000	43,643	46,373	60,000	53,465	293,477
Over 1 to 5 years													
Gross purchases	47,253	5,767	4,001	0	0	0	0	0	0	12	0	75	57,108
Gross sales	0	0	0	0	0	0	0	0	0	0	0	0	0
Exchanges	28,521	48,236	26,867	10,973	62,551	11,071	5,480	48,129	0	0	23,268	0	265,096
Over 5 to 10 years													
Gross purchases	9,962	7,136	1,599	0	0	0	0	0	0	0	20	0	18,717
Gross sales	0	0	0	0	0	0	0	0	0	0	0	0	0
Exchanges	16,089	30,950	17,069	8,110	39,713	4,997	4,206	30,251	0	0	17,709	0	169,094
More than 10 years													
Gross purchases	8,728	5,285	2,400	0	0	0	0	0	0	50	5	0	16,468
Gross sales	0	0	0	0	0	25	0	0	0	0	0	0	25
Exchanges	6,519	18,711	6,339	4,771	20,171	2,187	2,422	17,491	0	0	8,995	0	87,606
All maturities													
Gross purchases	71,011	19,808	8,000	0	0	0	0	0	0	125	25	75	99,044
Gross sales	0	0	0	0	0	25	0	0	0	0	0	0	25
Redemptions	0	0	0	0	0	30,000	29,996	30,000	60,000	60,000	60,000	60,000	329,996
Net change in U.S. Treasury securities	71,011	19,808	8,000	0	0	−30,025	−29,996	−30,000	−60,000	−59,875	−59,975	−59,925	−230,977

(continued)

Table G.1—*continued*

Type of security and transaction	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total
Federal agency obligations													
Outright transactions[2]													
Gross purchases	0	0	0	0	0	0	0	0	0	0	0	0	0
Gross sales	0	0	0	0	0	0	0	0	0	0	0	0	0
Redemptions	0	0	0	0	0	0	0	0	0	0	0	0	0
Net change in federal agency obligations	0	0	0	0	0	0	0	0	0	0	0	0	0
Mortgage-backed securities[3]													
Net settlements[2]													
Net change in mortgage-backed securities	45,297	30,514	23,996	−339	−7,568	1,882	8,108	−8,148	−11,130	−19,638	−19,764	−17,354	25,856
Total net change in securities holdings[4]	**116,308**	**50,322**	**31,996**	**−339**	**−7,568**	**−28,143**	**−21,888**	**−38,148**	**−71,130**	**−79,513**	**−79,739**	**−77,279**	**−205,121**
Temporary transactions													
Repurchase agreements[5]	1	0	0	3	0	0	0	1	3	1	1	1	n/a
Reverse repurchase agreements[5]	1,885,565	1,907,943	1,888,989	2,036,960	2,187,082	2,425,166	2,480,504	2,464,908	2,539,421	2,549,222	2,509,114	2,541,742	n/a
Foreign official and international accounts	296,175	260,548	250,852	267,516	275,000	262,953	286,936	265,838	281,616	324,771	362,285	357,042	n/a
Others	1,589,390	1,647,395	1,638,137	1,769,444	1,912,082	2,162,213	2,193,568	2,199,070	2,257,805	2,224,451	2,146,829	2,184,700	n/a

Note: Purchases of Treasury securities and federal agency obligations increase securities holdings; sales and redemptions of these securities decrease securities holdings. Exchanges occur when the Federal Reserve rolls the proceeds of maturing securities into newly issued securities, and so exchanges do not affect total securities holdings. Positive net settlements of mortgage-backed securities increase securities holdings, while negative net settlements of these securities decrease securities holdings. Components may not sum to totals because of rounding. See table 2 of the H.4.1 release (https://www.federalreserve.gov/releases/h41/) for the maturity distribution of the securities.

1 Transactions exclude changes in compensation for the effects of inflation on the principal of inflation-indexed securities. Transactions include the rollover of inflation compensation into new securities. The maturity distributions of exchanged Treasury securities are based on the announced maturity of new securities rather than actual day counts.

2 Excludes the effect of temporary transactions—repurchase agreements and reverse repurchase agreements.

3 Guaranteed by Fannie Mae, Freddie Mac, and Ginnie Mae. Monthly net change in the remaining principal balance of the securities, reported at face value.

4 The net change in securities holdings reflects the settlements of purchases, reinvestments, sales, and maturities of portfolio securities.

5 Averages of daily business cash value of agreements, which are collateralized by U.S. Treasury securities, federal agency debt securities, and mortgage-backed securities. For additional details on temporary transactions, see the temporary open market operations historical search available at https://www.newyorkfed.org/markets/data-hub.

n/a Not applicable.

Table G.2. Federal Reserve Bank holdings of U.S. Treasury and federal agency securities, December 31, 2020–22

Millions of dollars

Description	December 31			Change	
	2022	2021	2020	2021–22	2020–21
U.S. Treasury securities[1]					
Held outright[2]	**5,499,354**	**5,652,542**	**4,688,929**	**−153,188**	**963,613**
By remaining maturity					
Bills					
1–90 days	177,692	207,113	191,154	−29,421	15,959
91 days to 1 year	111,833	118,931	134,890	−7,098	−15,959
Notes and bonds					
1 year or less	892,496	807,747	708,144	84,749	99,603
More than 1 year through 5 years	1,915,468	2,146,103	1,759,737	−230,635	386,366
More than 5 years through 10 years	937,231	1,019,239	836,893	−82,008	182,346
More than 10 years	1,464,634	1,353,409	1,058,111	111,225	295,298
By type					
Bills	289,525	326,044	326,044	−36,519	0
Notes	3,521,904	3,748,992	3,063,037	−227,088	685,955
Bonds	1,687,925	1,577,506	1,299,848	110,419	277,658
Federal agency securities[1]					
Held outright[2]	**2,347**	**2,347**	**2,347**	**0**	**0**
By remaining maturity					
Discount notes					
1–90 days	0	0	0	0	0
91 days to 1 year	0	0	0	0	0
Coupons					
1 year or less	0	0	0	0	0
More than 1 year through 5 years	0	0	0	0	0
More than 5 years through 10 years	2,347	2,134	1,818	213	316
More than 10 years	0	213	529	−213	−316
By type					
Discount notes	0	0	0	0	0
Coupons	2,347	2,347	2,347	0	0

(continued)

Table G.2—*continued*

Description	December 31			Change	
	2022	2021	2020	2021–22	2020–21
By issuer					
Federal Home Loan Mortgage Corporation	529	529	529	0	0
Federal National Mortgage Association	1,818	1,818	1,818	0	0
Federal Home Loan Banks	0	0	0	0	0
Mortgage-backed securities[3, 4]					
Held outright[2]	**2,641,403**	**2,615,546**	**2,039,467**	**25,857**	**576,079**
By remaining maturity					
1 year or less	38	26	4	12	22
More than 1 year through 5 years	4,020	1,803	2,016	2,217	−213
More than 5 years through 10 years	49,979	60,328	72,044	−10,349	−11,716
More than 10 years	2,587,366	2,553,389	1,965,403	33,977	587,986
By issuer					
Federal Home Loan Mortgage Corporation	1,001,274	977,512	667,007	23,762	310,505
Federal National Mortgage Association	1,091,106	1,075,531	888,260	15,575	187,271
Government National Mortgage Association	549,023	562,503	484,200	−13,480	78,303
Temporary transactions[5]					
Repurchase agreements[6]	**0**	**0**	**1,000**	**0**	**−1,000**
Repo operations	0	0	0	0	0
FIMA Repo Facility	0	0	1,000	0	−1,000
Reverse repurchase agreements[6]	**2,889,555**	**2,183,041**	**216,051**	**706,514**	**1,966,990**
Foreign official and international accounts	335,839	278,459	206,400	57,380	72,059
Primary dealers and expanded counterparties	2,553,716	1,904,582	9,651	649,134	1,894,931

Note: Components may not sum to totals because of rounding.
1 Par value.
2 Excludes the effect of temporary transactions—repurchase agreements and reverse repurchase agreements.
3 Guaranteed by Fannie Mae, Freddie Mac, and Ginnie Mae.
4 The par amount shown is the remaining principal balance of the securities.
5 Contract amount of agreements.
6 Cash value of agreements, which are collateralized by U.S. Treasury securities, federal agency debt securities, and mortgage-backed securities.

Table G.3. Reserve requirements of depository institutions, December 31, 2022

Liability type[1]	Requirement	
	Percentage of liabilities	Effective date
Net transaction accounts	0	3/26/2020
Nonpersonal time deposits	0	12/27/1990
Eurocurrency liabilities	0	12/27/1990

Note: The table reflects the liability types and percentages of those liabilities subject to requirements for the maintenance period that contains the year end.

[1] For a description of these deposit types, see Regulation D.

Table G.4. Banking offices and banks affiliated with bank holding companies in the United States, December 31, 2021 and 2022

Type of office	Total	Commercial banks[1]					Savings banks
		Total	Member			Nonmember	
			Total	National	State		
Banks							
Number, Dec. 31, 2021	**4452**	**4224**	**1415**	**736**	**679**	**2809**	**228**
Changes during 2022	0	0	0	0	0	0	0
New banks	19	15	2	2	0	13	4
Banks converted into branches	–110	–105	–26	–16	–10	–79	–5
Ceased banking operations[2]	–24	–21	–4	–2	–2	–17	–3
Other[3]	0	2	–3	–10	7	5	–2
Net change	–115	–109	–31	–26	–5	–78	–6
Number, Dec. 31, 2022	**4337**	**4115**	**1384**	**710**	**674**	**2731**	**222**
Branches and additional offices							
Number, Dec. 31, 2021	**73468**	**71036**	**47825**	**36663**	**11162**	**23211**	**2432**
Changes during 2022	0	0	0	0	0	0	0
New branches	1046	979	661	519	142	318	67
Banks converted to branches	110	108	48	24	24	60	2
Discontinued[2]	–2651	–2599	–1735	–1420	–315	–864	–52
Other[3]	0	303	498	–206	704	–195	–303
Net change	–1495	–1209	–528	–1083	555	–681	–286
Number, Dec. 31, 2022	**71973**	**69827**	**47297**	**35580**	**11717**	**22530**	**2146**
Banks affiliated with BHCs							
Number, Dec. 31, 2021	**3807**	**3690**	**1288**	**656**	**632**	**2402**	**117**
Changes during 2022	0	0	0	0	0	0	0
BHC-affiliated new banks	39	35	9	7	2	26	4
Banks converted into branches	–100	–95	–25	–16	–9	–70	–5
Ceased banking operations[2]	–22	–19	–5	–3	–2	–14	–3
Other[3]	0	1	–2	–8	6	3	–1
Net change	–83	–78	–23	–20	–3	–55	–5
Number, Dec. 31, 2022	**3724**	**3612**	**1265**	**636**	**629**	**2347**	**112**

Note: Includes banks, banking offices, and bank holding companies in U.S. territories and possessions (affiliated insular areas).

1 For purposes of this table, banks are entities that are defined as banks in the Bank Holding Company Act, as amended, which is implemented by Federal Reserve Regulation Y. Generally, a bank is any institution that accepts demand deposits and is engaged in the business of making commercial loans or any institution that is defined as an insured bank in section 3(h) of the Federal Deposit Insurance Corporation Act.

2 Institutions that no longer meet the Regulation Y definition of a bank.

3 Interclass changes and sales of branches.

Table G.5A. Reserves of depository institutions, Federal Reserve Bank credit, and related items, year-end 1984–2022 and month-end 2022

Millions of dollars

Period	Factors supplying reserve funds								
	Federal Reserve Bank credit outstanding						Gold stock	Special drawing rights certificate account	Treasury coin and currency outstanding[5]
	Securities held outright[1]	Repurchase agreements[2]	Loans and other credit extensions[3]	Float	Other Federal Reserve assets[4]	Total[4]			
1984	167,612	2,015	3,577	833	12,347	186,384	11,096	4,618	16,418
1985	186,025	5,223	3,060	988	15,302	210,598	11,090	4,718	17,075
1986	205,454	16,005	1,565	1,261	17,475	241,760	11,084	5,018	17,567
1987	226,459	4,961	3,815	811	15,837	251,883	11,078	5,018	18,177
1988	240,628	6,861	2,170	1,286	18,803	269,748	11,060	5,018	18,799
1989	233,300	2,117	481	1,093	39,631	276,622	11,059	8,518	19,628
1990	241,431	18,354	190	2,222	39,897	302,091	11,058	10,018	20,402
1991	272,531	15,898	218	731	34,567	323,945	11,059	10,018	21,014
1992	300,423	8,094	675	3,253	30,020	342,464	11,056	8,018	21,447
1993	336,654	13,212	94	909	33,035	383,904	11,053	8,018	22,095
1994	368,156	10,590	223	−716	33,634	411,887	11,051	8,018	22,994
1995	380,831	13,862	135	107	33,303	428,239	11,050	10,168	24,003
1996	393,132	21,583	85	4,296	32,896	451,992	11,048	9,718	24,966
1997	431,420	23,840	2,035	719	31,452	489,466	11,047	9,200	25,543
1998	452,478	30,376	17	1,636	36,966	521,475	11,046	9,200	26,270
1999	478,144	140,640	233	−237	35,321	654,100	11,048	6,200	28,013
2000	511,833	43,375	110	901	36,467	592,686	11,046	2,200	31,643
2001	551,685	50,250	34	−23	37,658	639,604	11,045	2,200	33,017
2002	629,416	39,500	40	418	39,083	708,457	11,043	2,200	34,597
2003	666,665	43,750	62	−319	40,847	751,005	11,043	2,200	35,468
2004	717,819	33,000	43	925	42,219	794,007	11,045	2,200	36,434
2005	744,215	46,750	72	885	39,611	831,532	11,043	2,200	36,540
2006	778,915	40,750	67	−333	39,895	859,294	11,041	2,200	38,206
2007	740,611	46,500	72,636	−19	41,799	901,528	11,041	2,200	38,681
2008	495,629	80,000	1,605,848	−1,494	43,553	2,223,537	11,041	2,200	38,674
2009	1,844,838	0	281,095	−2,097	92,811	2,216,647	11,041	5,200	42,691
2010	2,161,094	0	138,311	−1,421	110,255	2,408,240	11,041	5,200	43,542
2011	2,605,124	0	144,098	−631	152,568	2,901,159	11,041	5,200	44,198
2012	2,669,589	0	11,867	−486	218,296	2,899,266	11,041	5,200	44,751
2013	3,756,158	0	2,177	−962	246,947	4,004,320	11,041	5,200	45,493
2014	4,236,873	0	3,351	−555	239,238	4,478,908	11,041	5,200	46,301
2015	4,241,958	0	2,830	−36	221,448	4,466,199	11,041	5,200	47,567
2016	4,221,187	0	7,325	−804	206,551	4,434,259	11,041	5,200	48,536
2017	4,223,528	0	13,914	−920	194,288	4,430,809	11,041	5,200	49,381
2018	3,862,079	0	4,269	−770	173,324	4,038,902	11,041	5,200	49,801
2019	3,739,957	255,619	3,770	−643	156,304	4,155,007	11,041	5,200	50,138

(continued)

Table G.5A—*continued*

Period	Factors supplying reserve funds								
	Federal Reserve Bank credit outstanding						Gold stock	Special drawing rights certificate account	Treasury coin and currency outstanding[5]
	Securities held outright[1]	Repurchase agreements[2]	Loans and other credit extensions[3]	Float	Other Federal Reserve assets[4]	Total[4]			
2020	6,730,743	1,000	216,669	−567	393,420	7,341,265	11,041	5,200	50,535
2021	8,270,436	0	77,621	−582	389,982	8,737,457	11,041	5,200	50,942
2022	8,143,103	0	47,288	−539	343,400	8,533,252	11,041	5,200	51,471
2022, month-end									
Jan.	8,381,573	0	69,989	−614	393,213	8,844,161	11,041	5,200	50,998
Feb.	8,441,938	0	66,901	−580	376,542	8,884,801	11,041	5,200	50,939
Mar.	8,477,893	0	62,503	−694	377,437	8,917,139	11,041	5,200	51,009
Apr.	8,481,793	0	62,704	−380	378,763	8,922,880	11,041	5,200	51,065
May	8,480,484	1	55,501	−1,004	361,369	8,896,351	11,041	5,200	51,121
June	8,455,005	0	54,798	−786	362,363	8,871,380	11,041	5,200	51,191
July	8,454,622	0	53,084	−647	366,049	8,873,108	11,041	5,200	51,216
Aug.	8,406,632	0	54,070	−1,087	347,808	8,807,429	11,041	5,200	51,272
Sept.	8,335,445	0	54,868	−375	349,928	8,739,866	11,041	5,200	51,342
Oct.	8,255,764	0	53,105	−582	351,602	8,659,892	11,041	5,200	51,398
Nov.	8,177,087	0	52,868	−1,065	337,117	8,566,007	11,041	5,200	51,454
Dec.	8,143,103	0	47,288	−539	343,400	8,533,252	11,041	5,200	51,471

Note: Components may not sum to totals because of rounding.

1 Includes U.S. Treasury securities, federal agency debt securities, and mortgage-backed securities. U.S. Treasury securities and federal agency debt securities include securities lent to dealers, which are fully collateralized by U.S. Treasury securities, federal agency securities, and other highly rated debt securities.

2 Cash value of agreements, which are collateralized by U.S. Treasury securities, federal agency debt securities, and agency mortgage-backed securities.

3 Includes central bank liquidity swaps; primary, seasonal, secondary credit; and other credit extensions. From 2020 to 2022, included the following liquidity programs and 13(3) facilities: Paycheck Protection Program Liquidity Facility; MS Facilities LLC; Municipal Facility LLC; and Term Asset-Backed Securities Loan Facility II LLC. From 2020 to 2021, also included Money Market Mutual Fund Liquidity Facility; Primary Dealer Credit Facility; Commercial Paper Funding Facility II LLC; and Corporate Credit Facilities LLC. From 2015–19, included Maiden Lane LLC. For disaggregated loans and other credit extensions from 1984–2014, refer to “Table 5B. Loans and other credit extensions, by type, year-end 1984–2014 and month-end 2014” of the 2014 Annual Report.

4 As of 2013, unamortized discounts on securities held outright are included as a component of “Other Federal Reserve assets.” Previously, they were included in “Other Federal Reserve liabilities and capital.”

5 Includes currency and coin (other than gold) issued directly by the U.S. Treasury. The largest components are fractional and dollar coins. For details, refer to “U.S. Currency and Coin Outstanding and in Circulation,” Treasury Bulletin.

Table G.5A. Reserves of depository institutions, Federal Reserve Bank credit, and related items, year-end 1984–2022 and month-end 2022—*continued*

Millions of dollars

Period	Factors absorbing reserve funds										Reserve balances with Federal Reserve Banks
	Currency in circulation	Reverse repurchase agreements[6]	Treasury cash holdings[7]	Deposits with Federal Reserve Banks, other than reserve balances					Required clearing balances[9]	Other Federal Reserve liabilities and capital[4,10]	
				Term deposits	Treasury General Account	Treasury supplementary financing account	Foreign	Other[8]			
1984	183,796	0	513	n/a	5,316	n/a	253	867	1,126	5,952	20,693
1985	197,488	0	550	n/a	9,351	n/a	480	1,041	1,490	5,940	27,141
1986	211,995	0	447	n/a	7,588	n/a	287	917	1,812	6,088	46,295
1987	230,205	0	454	n/a	5,313	n/a	244	1,027	1,687	7,129	40,097
1988	247,649	0	395	n/a	8,656	n/a	347	548	1,605	7,683	37,742
1989	260,456	0	450	n/a	6,217	n/a	589	1,298	1,618	8,486	36,713
1990	286,963	0	561	n/a	8,960	n/a	369	528	1,960	8,147	36,081
1991	307,756	0	636	n/a	17,697	n/a	968	1,869	3,946	8,113	25,051
1992	334,701	0	508	n/a	7,492	n/a	206	653	5,897	7,984	25,544
1993	365,271	0	377	n/a	14,809	n/a	386	636	6,332	9,292	27,967
1994	403,843	0	335	n/a	7,161	n/a	250	1,143	4,196	11,959	25,061
1995	424,244	0	270	n/a	5,979	n/a	386	2,113	5,167	12,342	22,960
1996	450,648	0	249	n/a	7,742	n/a	167	1,178	6,601	13,829	17,310
1997	482,327	0	225	n/a	5,444	n/a	457	1,171	6,684	15,500	23,447
1998	517,484	0	85	n/a	6,086	n/a	167	1,869	6,780	16,354	19,164
1999	628,359	0	109	n/a	28,402	n/a	71	1,644	7,481	17,256	16,039
2000	593,694	0	450	n/a	5,149	n/a	216	2,478	6,332	17,962	11,295
2001	643,301	0	425	n/a	6,645	n/a	61	1,356	8,525	17,083	8,469
2002	687,518	21,091	367	n/a	4,420	n/a	136	1,266	10,534	18,977	11,988
2003	724,187	25,652	321	n/a	5,723	n/a	162	995	11,829	19,793	11,054
2004	754,877	30,783	270	n/a	5,912	n/a	80	1,285	9,963	26,378	14,137
2005	794,014	30,505	202	n/a	4,573	n/a	83	2,144	8,651	30,466	10,678
2006	820,176	29,615	252	n/a	4,708	n/a	98	972	6,842	36,231	11,847
2007	828,938	43,985	259	n/a	16,120	n/a	96	1,830	6,614	41,622	13,986
2008	889,898	88,352	259	n/a	106,123	259,325	1,365	21,221	4,387	48,921	855,599
2009	928,249	77,732	239	n/a	186,632	5,001	2,411	35,262	3,020	63,219	973,814
2010	982,750	59,703	177	0	140,773	199,964	3,337	13,631	2,374	99,602	965,712
2011	1,075,820	99,900	128	0	85,737	n/a	125	64,909	2,480	72,766	1,559,731
2012	1,169,159	107,188	150	0	92,720	n/a	6,427	27,476	n/a	66,093	1,491,044
2013	1,241,228	315,924	234	0	162,399	n/a	7,970	26,181	n/a	63,049	2,249,070
2014	1,342,957	509,837	201	0	223,452	n/a	5,242	20,320	n/a	61,447	2,377,995
2015	1,424,967	712,401	266	0	333,447	n/a	5,231	31,212	n/a	45,320	1,977,163
2016	1,509,440	725,210	166	0	399,190	n/a	5,165	53,248	n/a	46,943	1,759,675
2017	1,618,006	563,958	214	0	228,933	n/a	5,257	77,762	n/a	47,876	1,954,426

(continued)

Table G.5A—*continued*

Period	Factors absorbing reserve funds										Reserve balances with Federal Reserve Banks
	Currency in circulation	Reverse repurchase agreements[6]	Treasury cash holdings[7]	Deposits with Federal Reserve Banks, other than reserve balances					Required clearing balances[9]	Other Federal Reserve liabilities and capital[4,10]	
				Term deposits	Treasury General Account	Treasury supplementary financing account	Foreign	Other[8]			
2018	1,719,302	304,012	214	0	402,138	n/a	5,245	73,073	n/a	45,007	1,555,954
2019	1,807,740	336,649	171	0	403,853	n/a	5,182	74,075	n/a	44,867	1,548,849
2020	2,089,224	216,051	28	0	1,728,569	n/a	21,838	194,327	n/a	163,075	2,994,932
2021	2,236,789[r]	2,183,041	65	0	406,108	n/a	9,331	255,263	n/a	69,766	3,644,277
2022	2,309,128	2,889,555	99	0	446,685	n/a	8,935	218,227	n/a	43,522	2,684,814
2022, month-end											
Jan.	2,228,799	1,942,340	27	0	742,843	n/a	5,198	249,119	n/a	69,582	3,673,489
Feb.	2,242,358	1,845,377	34	0	771,264	n/a	5,737	247,494	n/a	68,770	3,770,949
Mar.	2,268,077	2,120,984	74	0	651,523	n/a	7,476	270,595	n/a	68,249	3,597,411
Apr.	2,270,393	2,193,107	80	0	923,240	n/a	7,603	267,402	n/a	69,600	3,258,761
May	2,279,619	2,237,272	91	0	854,240	n/a	7,709	244,071	n/a	70,325	3,270,387
June	2,281,832	2,601,226	97	0	782,406	n/a	7,451	246,288	n/a	64,099	2,955,412
July	2,273,698	2,587,882	104	0	619,273	n/a	7,957	212,407	n/a	66,911	3,172,334
Aug.	2,278,728	2,528,284	97	0	669,911	n/a	8,117	208,256	n/a	65,694	3,115,849
Sept.	2,279,429	2,720,433	103	0	635,994	n/a	7,437	225,757	n/a	63,496	2,874,800
Oct.	2,284,752	2,637,779	98	0	596,470	n/a	7,437	199,353	n/a	60,218	2,941,420
Nov.	2,297,852	2,496,506	103	0	532,791	n/a	7,437	192,918	n/a	53,859	3,052,235
Dec.	2,309,128	2,889,555	99	0	446,685	n/a	8,935	218,227	n/a	43,522	2,684,814

[6] Cash value of agreements, which are collaterized by U.S. Treasury securities, federal agency debt securities, and agency mortgage-backed securities.
[7] Coin and paper currency held by the Treasury.
[8] As of 2014, includes deposits of designated financial market utilities.
[9] Required clearing balances were discontinued in July 2012.
[10] In 2022, includes equity investments in MS Facilities LLC, Municipal Facility LLC, and Term Asset-Backed Securities Loan Facility II LLC. In 2020 and 2021, also included equity investments in Commercial Paper Funding Facility II LLC and Corporate Credit Facilities LLC. In 2010, included funds from American International Group, Inc. asset dispositions, held as agent.
n/a Not applicable.
r Revised.

Table G.5B. Reserves of depository institutions, Federal Reserve Bank credit, and related items, year-end 1918–1983

Millions of dollars

Period	Factors supplying reserve funds									
	Federal Reserve Bank credit outstanding							Gold stock[6]	Special drawing rights certificate account	Treasury coin and currency outstanding[7]
	Securities held outright[1]	Repurchase agreements[2]	Loans	Float[3]	All other[4]	Other Federal Reserve assets[5]	Total			
1918	239	0	1,766	199	294	0	2,498	2,873	n/a	1,795
1919	300	0	2,215	201	575	0	3,292	2,707	n/a	1,707
1920	287	0	2,687	119	262	0	3,355	2,639	n/a	1,709
1921	234	0	1,144	40	146	0	1,563	3,373	n/a	1,842
1922	436	0	618	78	273	0	1,405	3,642	n/a	1,958
1923	80	54	723	27	355	0	1,238	3,957	n/a	2,009
1924	536	4	320	52	390	0	1,302	4,212	n/a	2,025
1925	367	8	643	63	378	0	1,459	4,112	n/a	1,977
1926	312	3	637	45	384	0	1,381	4,205	n/a	1,991
1927	560	57	582	63	393	0	1,655	4,092	n/a	2,006
1928	197	31	1,056	24	500	0	1,809	3,854	n/a	2,012
1929	488	23	632	34	405	0	1,583	3,997	n/a	2,022
1930	686	43	251	21	372	0	1,373	4,306	n/a	2,027
1931	775	42	638	20	378	0	1,853	4,173	n/a	2,035
1932	1,851	4	235	14	41	0	2,145	4,226	n/a	2,204
1933	2,435	2	98	15	137	0	2,688	4,036	n/a	2,303
1934	2,430	0	7	5	21	0	2,463	8,238	n/a	2,511
1935	2,430	1	5	12	38	0	2,486	10,125	n/a	2,476
1936	2,430	0	3	39	28	0	2,500	11,258	n/a	2,532
1937	2,564	0	10	19	19	0	2,612	12,760	n/a	2,637
1938	2,564	0	4	17	16	0	2,601	14,512	n/a	2,798
1939	2,484	0	7	91	11	0	2,593	17,644	n/a	2,963
1940	2,184	0	3	80	8	0	2,274	21,995	n/a	3,087
1941	2,254	0	3	94	10	0	2,361	22,737	n/a	3,247
1942	6,189	0	6	471	14	0	6,679	22,726	n/a	3,648
1943	11,543	0	5	681	10	0	12,239	21,938	n/a	4,094
1944	18,846	0	80	815	4	0	19,745	20,619	n/a	4,131
1945	24,262	0	249	578	2	0	25,091	20,065	n/a	4,339
1946	23,350	0	163	580	1	0	24,093	20,529	n/a	4,562
1947	22,559	0	85	535	1	0	23,181	22,754	n/a	4,562
1948	23,333	0	223	541	1	0	24,097	24,244	n/a	4,589
1949	18,885	0	78	534	2	0	19,499	24,427	n/a	4,598
1950	20,725	53	67	1,368	3	0	22,216	22,706	n/a	4,636
1951	23,605	196	19	1,184	5	0	25,009	22,695	n/a	4,709
1952	24,034	663	156	967	4	0	25,825	23,187	n/a	4,812
1953	25,318	598	28	935	2	0	26,880	22,030	n/a	4,894
1954	24,888	44	143	808	1	0	25,885	21,713	n/a	4,985
1955	24,391	394	108	1,585	29	0	26,507	21,690	n/a	5,008
1956	24,610	305	50	1,665	70	0	26,699	21,949	n/a	5,066
1957	23,719	519	55	1,424	66	0	25,784	22,781	n/a	5,146
1958	26,252	95	64	1,296	49	0	27,755	20,534	n/a	5,234

(continued)

Table G.5B—*continued*

Period	Factors supplying reserve funds									
	Federal Reserve Bank credit outstanding							Gold stock[6]	Special drawing rights certificate account	Treasury coin and currency outstanding[7]
	Securities held outright[1]	Repurchase agreements[2]	Loans	Float[3]	All other[4]	Other Federal Reserve assets[5]	Total			
1959	26,607	41	458	1,590	75	0	28,771	19,456	n/a	5,311
1960	26,984	400	33	1,847	74	0	29,338	17,767	n/a	5,398
1961	28,722	159	130	2,300	51	0	31,362	16,889	n/a	5,585
1962	30,478	342	38	2,903	110	0	33,871	15,978	n/a	5,567
1963	33,582	11	63	2,600	162	0	36,418	15,513	n/a	5,578
1964	36,506	538	186	2,606	94	0	39,930	15,388	n/a	5,405
1965	40,478	290	137	2,248	187	0	43,340	13,733	n/a	5,575
1966	43,655	661	173	2,495	193	0	47,177	13,159	n/a	6,317
1967	48,980	170	141	2,576	164	0	52,031	11,982	n/a	6,784
1968	52,937	0	186	3,443	58	0	56,624	10,367	n/a	6,795
1969	57,154	0	183	3,440	64	2,743	63,584	10,367	n/a	6,852
1970	62,142	0	335	4,261	57	1,123	67,918	10,732	400	7,147
1971	69,481	1,323	39	4,343	261	1,068	76,515	10,132	400	7,710
1972	71,119	111	1,981	3,974	106	1,260	78,551	10,410	400	8,313
1973	80,395	100	1,258	3,099	68	1,152	86,072	11,567	400	8,716
1974	84,760	954	299	2,001	999	3,195	92,208	11,652	400	9,253
1975	92,789	1,335	211	3,688	1,126	3,312	102,461	11,599	500	10,218
1976	100,062	4,031	25	2,601	991	3,182	110,892	11,598	1,200	10,810
1977	108,922	2,352	265	3,810	954	2,442	118,745	11,718	1,250	11,331
1978	117,374	1,217	1,174	6,432	587	4,543	131,327	11,671	1,300	11,831
1979	124,507	1,660	1,454	6,767	704	5,613	140,705	11,172	1,800	13,083
1980	128,038	2,554	1,809	4,467	776	8,739	146,383	11,160	2,518	13,427
1981	136,863	3,485	1,601	1,762	195	9,230	153,136	11,151	3,318	13,687
1982	144,544	4,293	717	2,735	1,480	9,890	163,659	11,148	4,618	13,786
1983	159,203	1,592	918	1,605	418	8,728	172,464	11,121	4,618	15,732

Note: For a description of figures and discussion of their significance, see *Banking and Monetary Statistics*, 1941–1970 (Board of Governors of the Federal Reserve System, 1976), pp. 507–23. Components may not sum to totals because of rounding.

1 In 1969 and thereafter, includes securities loaned—fully guaranteed by U.S. government securities pledged with Federal Reserve Banks—and excludes securities sold and scheduled to be bought back under matched sale–purchase transactions. On September 29, 1971, and thereafter, includes federal agency issues bought outright.

2 On December 1, 1966, and thereafter, includes federal agency obligations held under repurchase agreements.

3 In 1960 and thereafter, figures reflect a minor change in concept; refer to *Federal Reserve Bulletin*, vol. 47 (February 1961), p. 164.

4 Principally acceptances and, until August 21, 1959, industrial loans, the authority for which expired on that date.

5 For the period before April 16, 1969, includes the total of Federal Reserve capital paid in, surplus, other capital accounts, and other liabilities and accrued dividends, less the sum of bank premises and other assets, and is reported as "Other Federal Reserve accounts"; thereafter, "Other Federal Reserve assets" and "Other Federal Reserve liabilities and capital" are shown separately.

6 Before January 30, 1934, includes gold held in Federal Reserve Banks and in circulation.

7 Includes currency and coin (other than gold) issued directly by the Treasury. The largest components are fractional and dollar coins. For details refer to "U.S. Currency and Coin Outstanding and in Circulation," *Treasury Bulletin*.

n/a Not applicable.

Table G.5B. Reserves of depository institutions, Federal Reserve Bank credit, and related items, year-end 1918–1983—*continued*

Millions of dollars

Period	Factors absorbing reserve funds								Member bank reserves[9]			
	Currency in circulation	Treasury cash holdings[8]	Deposits with Federal Reserve Banks, other than reserve balances			Other Federal Reserve accounts[5]	Required clearing balances	Other Federal Reserve liabilities and capital[5]	With Federal Reserve Banks	Currency and coin[10]	Required[11]	Excess[11,12]
			Treasury	Foreign	Other							
1918	4,951	288	51	96	25	118	0	0	1,636	n/a	1,585	51
1919	5,091	385	31	73	28	208	0	0	1,890	n/a	1,822	68
1920	5,325	218	57	5	18	298	0	0	1,781	n/a	n/a	n/a
1921	4,403	214	96	12	15	285	0	0	1,753	n/a	1,654	99
1922	4,530	225	11	3	26	276	0	0	1,934	n/a	n/a	n/a
1923	4,757	213	38	4	19	275	0	0	1,898	n/a	1,884	14
1924	4,760	211	51	19	20	258	0	0	2,220	n/a	2,161	59
1925	4,817	203	16	8	21	272	0	0	2,212	n/a	2,256	−44
1926	4,808	201	17	46	19	293	0	0	2,194	n/a	2,250	−56
1927	4,716	208	18	5	21	301	0	0	2,487	n/a	2,424	63
1928	4,686	202	23	6	21	348	0	0	2,389	n/a	2,430	−41
1929	4,578	216	29	6	24	393	0	0	2,355	n/a	2,428	−73
1930	4,603	211	19	6	22	375	0	0	2,471	n/a	2,375	96
1931	5,360	222	54	79	31	354	0	0	1,961	n/a	1,994	−33
1932	5,388	272	8	19	24	355	0	0	2,509	n/a	1,933	576
1933	5,519	284	3	4	128	360	0	0	2,729	n/a	1,870	859
1934	5,536	3,029	121	20	169	241	0	0	4,096	n/a	2,282	1,814
1935	5,882	2,566	544	29	226	253	0	0	5,587	n/a	2,743	2,844
1936	6,543	2,376	244	99	160	261	0	0	6,606	n/a	4,622	1,984
1937	6,550	3,619	142	172	235	263	0	0	7,027	n/a	5,815	1,212
1938	6,856	2,706	923	199	242	260	0	0	8,724	n/a	5,519	3,205
1939	7,598	2,409	634	397	256	251	0	0	11,653	n/a	6,444	5,209
1940	8,732	2,213	368	1,133	599	284	0	0	14,026	n/a	7,411	6,615
1941	11,160	2,215	867	774	586	291	0	0	12,450	n/a	9,365	3,085
1942	15,410	2,193	799	793	485	256	0	0	13,117	n/a	11,129	1,988
1943	20,449	2,303	579	1,360	356	339	0	0	12,886	n/a	11,650	1,236
1944	25,307	2,375	440	1,204	394	402	0	0	14,373	n/a	12,748	1,625
1945	28,515	2,287	977	862	446	495	0	0	15,915	n/a	14,457	1,458
1946	28,952	2,272	393	508	314	607	0	0	16,139	n/a	15,577	562
1947	28,868	1,336	870	392	569	563	0	0	17,899	n/a	16,400	1,499
1948	28,224	1,325	1,123	642	547	590	0	0	20,479	n/a	19,277	1,202
1949	27,600	1,312	821	767	750	706	0	0	16,568	n/a	15,550	1,018
1950	27,741	1,293	668	895	565	714	0	0	17,681	n/a	16,509	1,172
1951	29,206	1,270	247	526	363	746	0	0	20,056	n/a	19,667	389
1952	30,433	1,270	389	550	455	777	0	0	19,950	n/a	20,520	−570
1953	30,781	761	346	423	493	839	0	0	20,160	n/a	19,397	763
1954	30,509	796	563	490	441	907	0	0	18,876	n/a	18,618	258
1955	31,158	767	394	402	554	925	0	0	19,005	n/a	18,903	102
1956	31,790	775	441	322	426	901	0	0	19,059	n/a	19,089	−30
1957	31,834	761	481	356	246	998	0	0	19,034	n/a	19,091	−57

(continued)

Table G.5B—*continued*

Period	Factors absorbing reserve funds								Member bank reserves[9]			
	Currency in circulation	Treasury cash holdings[8]	Deposits with Federal Reserve Banks, other than reserve balances			Other Federal Reserve accounts[5]	Required clearing balances	Other Federal Reserve liabilities and capital[5]	With Federal Reserve Banks	Currency and coin[10]	Required[11]	Excess[11,12]
			Treasury	Foreign	Other							
1958	32,193	683	358	272	391	1,122	0	0	18,504	n/a	18,574	−70
1959	32,591	391	504	345	694	841	0	0	18,174	310	18,619	−135
1960	32,869	377	485	217	533	941	0	0	17,081	2,544	18,988	637
1961	33,918	422	465	279	320	1,044	0	0	17,387	2,823	20,114	96
1962	35,338	380	597	247	393	1,007	0	0	17,454	3,262	20,071	645
1963	37,692	361	880	171	291	1,065	0	0	17,049	4,099	20,677	471
1964	39,619	612	820	229	321	1,036	0	0	18,086	4,151	21,663	574
1965	42,056	760	668	150	355	211	0	0	18,447	4,163	22,848	−238
1966	44,663	1,176	416	174	588	−147	0	0	19,779	4,310	24,321	−232
1967	47,226	1,344	1,123	135	653	−773	0	0	21,092	4,631	25,905	−182
1968	50,961	695	703	216	747	−1,353	0	0	21,818	4,921	27,439	−700
1969	53,950	596	1,312	134	807	0	0	1,919	22,085	5,187	28,173	−901
1970	57,093	431	1,156	148	1,233	0	0	1,986	24,150	5,423	30,033	−460
1971	61,068	460	2,020	294	999	0	0	2,131	27,788	5,743	32,496	1,035
1972	66,516	345	1,855	325	840	0	0	2,143	25,647	6,216	32,044	98
1973	72,497	317	2,542	251	1491[13]	0	0	2,669	27,060	6,781	35,268	−1,360
1974	79,743	185	3,113	418	1275[13]	0	0	2,935	25,843	7,370	37,011	−3,798
1975	86,547	483	7,285	353	1,090	0	0	2,968	26,052	8,036	35,197	−1,103[14]
1976	93,717	460	10,393	352	1,357	0	0	3,063	25,158	8,628	35,461	−1,535
1977	103,811	392	7,114	379	1,187	0	0	3,292	26,870	9,421	37,615	−1,265
1978	114,645	240	4,196	368	1,256	0	0	4,275	31,152	10,538	42,694	−893
1979	125,600	494	4,075	429	1,412	0	0	4,957	29,792	11,429	44,217	−2,835
1980	136,829	441	3,062	411	617	0	0	4,671	27,456	13,654	40,558	675
1981	144,774	443	4,301	505	781	0	117	5,261	25,111	15,576	42,145	−1,442
1982	154,908	429	5,033	328	1,033	0	436	4,990	26,053	16,666	41,391	1,328
1983	171,935	479	3,661	191	851	0	1,013	5,392	20,413	17,821	39,179	−945

8 Coin and paper currency held by the Treasury, as well as any gold in excess of the gold certificates issued to the Reserve Bank.

9 In November 1979 and thereafter, includes reserves of member banks, Edge Act corporations, and U.S. agencies and branches of foreign banks. On November 13, 1980, and thereafter, includes reserves of all depository institutions.

10 Between December 1, 1959, and November 23, 1960, part was allowed as reserves; thereafter, all was allowed.

11 Estimated through 1958. Before 1929, data were available only on call dates (in 1920 and 1922 the call date was December 29). Since September 12, 1968, the amount has been based on close-of-business figures for the reserve period two weeks before the report date.

12 For the week ending November 15, 1972, and thereafter, includes $450 million of reserve deficiencies on which Federal Reserve Banks are allowed to waive penalties for a transition period in connection with bank adaptation to Regulation J as amended, effective November 9, 1972. Allowable deficiencies are as follows (beginning with first statement week of quarter, in millions): 1973:Q1, $279; Q2, $172; Q3, $112; Q4, $84; 1974:Q1, $67; Q2, $58. The transition period ended with the second quarter of 1974.

13 For the period before July 1973, includes certain deposits of domestic nonmember banks and foreign-owned banking institutions held with member banks and redeposited in full with Federal Reserve Banks in connection with voluntary participation by nonmember institutions in the Federal Reserve System program of credit restraint. As of December 12, 1974, the amount of voluntary nonmember bank and foreign-agency and branch deposits at Federal Reserve Banks that are associated with marginal reserves is no longer reported. However, two amounts are reported: (1) deposits voluntarily held as reserves by agencies and branches of foreign banks operating in the United States and (2) Eurodollar liabilities.

14 Adjusted to include waivers of penalties for reserve deficiencies, in accordance with change in Board policy, effective November 19, 1975.

n/a Not applicable.

Table G.6. Principal assets and liabilities of insured commercial banks, by class of bank, June 30, 2022 and 2021

Millions of dollars, except as noted

Item	Total	Member banks			Nonmember banks
		Total	National	State	
2022					
Loans and investments	16,011,406	12,596,119	10,128,264	2,467,855	3,415,287
Loans, gross	10,490,718	7,915,199	6,332,222	1,582,977	2,575,519
Net	10,489,384	7,914,798	6,332,047	1,582,751	2,574,586
Investments	5,520,687	4,680,920	3,796,042	884,878	839,768
U.S. government securities	1,435,329	1,330,716	1,177,257	153,459	104,613
Other	4,085,359	3,350,204	2,618,785	731,419	735,155
Cash assets, total	2,056,273	1,757,276	1,267,431	489,845	298,996
Deposits, total	16,761,985	13,427,711	10,753,594	2,674,117	3,334,274
Interbank	366,177	338,671	291,247	47,423	27,506
Other transactions	5,785,822	4,672,612	3,634,157	1,038,455	1,113,210
Other nontransactions	10,609,986	8,416,429	6,828,190	1,588,239	2,193,557
Equity capital	2,094,288	1,692,336	1,371,647	320,689	401,952
Number of banks	4,169	1,393	732	661	2,776
2021					
Loans and investments	14,678,778	11,645,916	9,396,565	2,249,351	3,032,862
Loans, gross	9,605,478	7,286,717	5,832,211	1,454,506	2,318,761
Net	9,602,709	7,285,655	5,831,454	1,454,202	2,317,053
Investments	5,073,300	4,359,198	3,564,354	794,845	714,101
U.S. government securities	1,138,339	1,086,636	977,334	109,302	51,703
Other	3,934,961	3,272,562	2,587,020	685,542	662,399
Cash assets, total	2,689,075	2,288,203	1,730,084	558,119	400,872
Deposits, total	15,882,912	12,860,206	10,322,576	2,537,630	3,022,706
Interbank	314,706	290,024	240,088	49,937	24,682
Other transactions	4,970,493	4,049,076	3,077,457	971,619	921,417
Other nontransactions	10,597,712	8,521,106	7,005,031	1,516,075	2,076,607
Equity capital	2,150,921	1,742,542	1,418,401	324,140	408,379
Number of banks	4,327	1,446	754	692	2,881

Note: Includes U.S.-insured commercial banks located in the United States but not U.S.-insured commercial banks operating in U.S. territories or possessions. Data are domestic assets and liabilities (except for those components reported on a consolidated basis only). Components may not sum to totals because of rounding. Data for 2021 have been revised.

Table G.7. Initial margin requirements under Regulations T, U, and X
Percent of market value

Effective date	Margin stocks	Convertible bonds	Short sales, T only[1]
1934, Oct. 1	25–45	n/a	n/a
1936, Feb. 1	25–55	n/a	n/a
1936, Apr. 1	55	n/a	n/a
1937, Nov. 1	40	n/a	50
1945, Feb. 5	50	n/a	50
1945, July 5	75	n/a	75
1946, Jan. 21	100	n/a	100
1947, Feb. 1	75	n/a	75
1949, Mar. 3	50	n/a	50
1951, Jan. 17	75	n/a	75
1953, Feb. 20	50	n/a	50
1955, Jan. 4	60	n/a	60
1955, Apr. 23	70	n/a	70
1958, Jan. 16	50	n/a	50
1958, Aug. 5	70	n/a	70
1958, Oct. 16	90	n/a	90
1960, July 28	70	n/a	70
1962, July 10	50	n/a	50
1963, Nov. 6	70	n/a	70
1968, Mar. 11	70	50	70
1968, June 8	80	60	80
1970, May 6	65	50	65
1971, Dec. 6	55	50	55
1972, Nov. 24	65	50	65
1974, Jan. 3	50	50	50

Note: These regulations, adopted by the Board of Governors pursuant to the Securities Exchange Act of 1934, limit the amount of credit that may be extended for the purpose of purchasing or carrying margin securities (as defined in the regulations) when the loan is collateralized by such securities. The margin requirement, expressed as a percentage, is the difference between the market value of the securities being purchased or carried (100 percent) and the maximum loan value of the collateral as prescribed by the Board. Regulation T was adopted effective October 1, 1934; Regulation U, effective May 1, 1936; and Regulation X, effective November 1, 1971. The former Regulation G, which was adopted effective March 11, 1968, was merged into Regulation U, effective April 1, 1998.

1 From October 1, 1934, to October 31, 1937, the requirement was the margin "customarily required" by the brokers and dealers.

n/a Not applicable.

Table G.8A. Statement of condition of the Federal Reserve Banks, by Bank, December 31, 2022 and 2021
Millions of dollars

Item	Total		Boston		New York		Philadelphia		Cleveland		Richmond	
	2022	2021	2022	2021	2022	2021	2022	2021	2022	2021	2022	2021
Assets												
Gold certificates	11,037	11,037	348	335	3,453	3,604	327	313	526	515	791	775
Special drawing rights certificates	5,200	5,200	196	196	1,818	1,818	210	210	237	237	412	412
Coin	1,209	1,232	15	13	25	22	108	114	46	47	190	180
Loans and securities												
Loans to depository institutions	5,276	555	120	32	1,069	0	36	15	19	0	138	18
Other loans	11,450	33,853	0	15	2,077	4,713	0	48	2,505	6,435	24	494
Securities purchased under agreements to resell[1]	0	0	0	0	0	0	0	0	0	0	0	0
Treasury securities, net[2, 3]	5,729,247	5,917,426	114,699	98,885	2,937,394	3,344,861	131,620	124,981	228,785	215,312	399,251	396,515
Federal agency and government-sponsored enterprise mortgage-backed securities, net[2]	2,697,583	2,685,268	54,005	44,873	1,383,055	1,517,864	61,973	56,715	107,722	97,706	187,985	179,935
Government-sponsored enterprise debt securities, net[2, 3]	2,584	2,610	52	44	1,325	1,475	59	55	103	95	180	175
Total loans and securities	8,446,140	8,639,712	168,876	143,849	4,324,920	4,868,913	193,688	181,814	339,134	319,548	587,578	577,137
Consolidated variable interest entities: Assets held, net[4]	30,436	40,171	22,910	29,707	7,526	10,465	n/a	n/a	n/a	n/a	n/a	n/a
Accrued interest receivable—System Open Market Account	34,277	30,976	687	519	17,566	17,499	788	655	1,372	1,130	2,395	2,082
Foreign currency denominated investments, net[5]	18,565	20,330	800	923	6,465	6,832	689	730	1,815	1,758	3,723	4,231
Central bank liquidity swaps[6]	412	3,340	18	152	144	1,122	15	120	40	289	83	695
Other assets												
Bank premises and equipment, net	2,700	2,610	124	108	475	489	169	167	143	138	338	335
Items in process of collection	72	76	0	0	*	0	0	0	0	0	0	0
Deferred asset—remittances to the Treasury[7]	16,585	0	309	0	12,545	0	18	0	146	0	1,434	0
Interdistrict settlement account	0	0	28,113	53,573	53,270	−675,247	−35,361	11,693	−21,458	29,613	28,809	119,685
All other assets[8]	2,721	1,715	92	58	1,640	756	14	16	80	75	276	214
Total assets	**8,569,354**	**8,756,399**	**222,488**	**229,433**	**4,429,847**	**4,236,273**	**160,665**	**195,832**	**322,081**	**353,350**	**626,029**	**705,746**

(continued)

Table G.8A—*continued*

Item	Total		Boston		New York		Philadelphia		Cleveland		Richmond	
	2022	2021	2022	2021	2022	2021	2022	2021	2022	2021	2022	2021
Liabilities												
Federal Reserve notes outstanding	2,618,832	2,436,967	86,350	79,284	783,156	750,189	73,670	72,804	125,617	114,939	189,334	172,027
Less: Notes held by Federal Reserve Bank	359,871	249,828	8,474	6,315	74,159	51,657	18,425	10,590	13,161	10,983	22,030	16,921
Federal Reserve notes outstanding, net	2,258,961	2,187,139	77,876	72,969	708,997	698,532	55,245	62,214	112,456	103,956	167,304	155,106
Securities sold under agreements to repurchase[1]	2,889,555	2,183,041	57,849	36,480	1,481,480	1,233,977	66,383	46,108	115,388	79,432	201,363	146,281
Deposits												
Depository institutions	2,684,814	3,644,277	73,249	103,751	1,709,016	1,810,633	37,398	85,730	90,103	165,462	247,973	394,655
Treasury, General Account	446,685	406,108	n/a	n/a	446,685	406,108	n/a	n/a	n/a	n/a	n/a	n/a
Other deposits[9]	227,160	264,593	11	19	62,967	61,911	1	1	27	258	488	647
Total deposits	**3,358,659**	**4,314,978**	**73,260**	**103,770**	**2,218,668**	**2,278,652**	**37,399**	**85,731**	**90,130**	**165,720**	**248,461**	**395,302**
Other liabilities												
Accrued remittances to the Treasury[7]	0	4,384	0	51	0	2,944	0	69	0	32	0	325
Deferred credit items	611	659	0	0	0	0	0	0	0	0	0	0
Consolidated variable interest entities: Other liabilities	96	156	95	152	2	4	n/a	n/a	n/a	n/a	n/a	n/a
All other liabilities[10]	4,082	5,579	169	200	1,678	2,262	136	202	165	236	437	578
Total liabilities	**8,511,964**	**8,695,936**	**209,249**	**213,622**	**4,410,825**	**4,216,371**	**159,163**	**194,324**	**318,139**	**349,376**	**617,565**	**697,592**

(continued)

Table G.8A—*continued*

Item	Total 2022	Total 2021	Boston 2022	Boston 2021	New York 2022	New York 2021	Philadelphia 2022	Philadelphia 2021	Cleveland 2022	Cleveland 2021	Richmond 2022	Richmond 2021
Capital accounts												
Capital paid-in	35,014	33,877	1,507	1,459	12,457	11,797	1,258	1,256	3,302	3,311	7,090	6,793
Surplus (including accumulated other comprehensive loss)	6,785	6,785	292	292	2,414	2,363	244	252	640	663	1,374	1,361
Total Reserve Bank capital	41,799	40,662	1,799	1,751	14,871	14,160	1,502	1,508	3,942	3,974	8,464	8,154
Consolidated variable interest entities formed to administer credit and liquidity facilities: Non-controlling interest	15,591	19,801	11,440	14,060	4,151	5,742	n/a	n/a	n/a	0	n/a	n/a
Total Reserve Bank capital and consolidated variable interest entities non-controlling interest	57,390	60,463	13,239	15,811	19,022	19,902	1,502	1,508	3,942	3,974	8,464	8,154
Total liabilities and capital accounts	**8,569,354**	**8,756,399**	**222,488**	**229,433**	**4,429,847**	**4,236,273**	**160,665**	**195,832**	**322,081**	**353,350**	**626,029**	**705,746**

Note: Components may not sum to totals because of rounding.

1 Contract amount of agreements.

2 Treasury securities, government-sponsored enterprise debt securities, and federal agency and government-sponsored enterprise mortgage-backed securities (GSE MBS) are presented at amortized cost, net of unamortized premiums and unamortized discounts.

3 Treasury securities and government-sponsored debt securities may be lent to primary dealers to facilitate the effective conduct of open market operations. Holdings are presented net of securities lent.

4 The Federal Reserve Bank of Boston is the primary beneficiary of MS Facilities LLC, and the Federal Reserve Bank of New York is the primary beneficiary of Municipal Liquidity Facility LLC and Term Asset-Backed Securities Loan Facility II LLC. As a result, the accounts and results of operations of those LLCs are included in the combined financial statements of the Federal Reserve Banks.

5 Valued daily at market exchange rates.

6 Dollar value of foreign currency held under these agreements valued at the exchange rate to be used when the foreign currency is returned to the foreign central bank. This exchange rate equals the market exchange rate used when the foreign currency was acquired from the foreign central bank.

7 "Deferred asset—remittances to the Treasury" represents the shortfall in earnings from the most recent point remittances to the Treasury were suspended. "Accrued remittances to the Treasury" represents the estimated weekly remittances to the U.S. Treasury. Total amounts are reported based on the net position of all Reserve Banks accrued remittances and deferred assets.

8 Includes depository institution overdrafts. In 2021, furniture and equipment is reported in bank premises and equipment, net.

9 Includes deposits of government-sponsored enterprises (GSEs) and international and designated financial market utilities. Also includes certain deposit accounts for services provided by the Reserve Banks as fiscal agents of the United States. Includes foreign official deposit accounts.

10 Includes accrued benefit costs and cash collateral posted by counterparties under commitments to purchase and sell federal agency and GSE MBS.

n/a Not applicable.

* Less than $500,000.

Table G.8A. Statement of condition of the Federal Reserve Banks, by Bank, December 31, 2022 and 2021—*continued*
Millions of dollars

Item	Atlanta		Chicago		St. Louis		Minneapolis		Kansas City		Dallas		San Francisco	
	2022	2021	2022	2021	2022	2021	2022	2021	2022	2021	2022	2021	2022	2021
Assets														
Gold certificates	1,593	1,534	669	712	311	325	173	183	287	302	997	938	1,562	1,501
Special drawing rights certificates	654	654	424	424	150	150	90	90	153	153	282	282	574	574
Coin	72	110	225	227	25	18	35	33	90	88	158	154	221	226
Loans and securities														
Loans to depository institutions	510	50	542	161	89	0	107	10	709	23	630	10	1,307	236
Other loans	0	82	2	85	12	389	3,929	12,232	22	445	6	211	2,871	8,706
Securities purchased under agreements to resell[1]	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Treasury securities, net[2, 3]	374,845	346,715	391,650	322,915	89,980	77,147	40,623	45,787	89,434	78,579	293,736	261,678	637,230	604,051
Federal agency and government-sponsored enterprise mortgage-backed securities, net[2]	176,493	157,336	184,406	146,536	42,366	35,009	19,127	20,778	42,109	35,658	138,304	118,747	300,036	274,112
Government-sponsored enterprise debt securities, net[2, 3]	169	153	177	142	41	34	18	20	40	35	132	115	287	266
Total loans and securities	552,017	504,336	576,777	469,839	132,488	112,579	63,804	78,827	132,314	114,740	432,808	380,761	941,731	887,371
Consolidated variable interest entities: Assets held, net[4]	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Accrued interest receivable–System Open Market Account	2,241	1,814	2,342	1,690	539	404	243	240	535	411	1,756	1,369	3,814	3,164
Foreign currency denominated investments, net[5]	604	920	704	797	374	387	93	173	192	220	446	366	2,662	2,994
Central bank liquidity swaps[6]	13	151	16	131	8	64	2	28	4	36	10	60	59	492
Other assets														
Bank premises and equipment, net	218	213	228	206	104	103	106	108	246	246	254	242	295	254
Items in process of collection	72	76	0	0	0	0	0	0	*	0	0	0	0	0
Deferred asset–remittances to the Treasury[7]	0	0	1,422	0	0	0	0	0	0	0	83	0	761	0
Interdistrict settlement account	45,589	97,915	−4,041	135,797	−5,354	27,887	−1,276	2,942	−20,881	29,550	−5,249	85,680	−62,160	80,913
All other assets[8]	51	59	35	34	108	100	121	111	120	117	51	38	134	134
Total assets	**603,124**	**607,782**	**578,801**	**609,857**	**128,753**	**142,017**	**63,391**	**82,735**	**113,060**	**145,863**	**431,596**	**469,890**	**889,653**	**977,623**

(continued)

Table G.8A—*continued*

Item	Atlanta		Chicago		St. Louis		Minneapolis		Kansas City		Dallas		San Francisco	
	2022	2021	2022	2021	2022	2021	2022	2021	2022	2021	2022	2021	2022	2021
Liabilities														
Federal Reserve notes outstanding	390,723	360,449	159,578	144,134	77,447	70,794	41,316	38,061	71,321	63,274	242,458	220,480	377,861	350,532
Less: Notes held by Federal Reserve Bank	36,096	32,723	36,800	22,227	8,102	5,845	8,437	4,873	21,307	7,313	50,425	27,361	62,455	53,020
Federal Reserve notes outstanding, net	354,627	327,726	122,778	121,907	69,345	64,949	32,879	33,188	50,014	55,961	192,033	193,119	315,406	297,512
Securities sold under agreements to repurchase[1]	189,054	127,909	197,529	119,129	45,381	28,461	20,488	16,892	45,106	28,989	148,146	96,538	321,388	222,845
Deposits														
Depository institutions	57,165	149,017	93,680	170,267	12,915	47,564	9,526	31,247	17,301	57,295	89,990	178,123	246,497	450,533
Treasury, general account	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Other deposits[9]	98	527	163,004	196,455	9	11	135	983	42	2,951	353	758	25	71
Total deposits	**57,263**	**149,544**	**256,684**	**366,722**	**12,924**	**47,575**	**9,661**	**32,230**	**17,343**	**60,246**	**90,343**	**178,881**	**246,522**	**450,604**
Other liabilities														
Accrued remittances to the Treasury[7]	79	251	0	148	44	34	2	67	9	55	0	90	0	318
Deferred credit items	611	659	0	0	0	0	0	0	*	0	0	0	0	0
Consolidated variable interest entities: Other liabilities	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
All other liabilities[10]	237	370	355	410	118	179	97	153	144	193	193	285	355	514
Total liabilities	**601,871**	**606,459**	**577,346**	**608,316**	**127,812**	**141,198**	**63,127**	**82,530**	**112,616**	**145,444**	**430,715**	**468,913**	**883,671**	**971,793**

(continued)

Table G.8A—*continued*

Item	Atlanta		Chicago		St. Louis		Minneapolis		Kansas City		Dallas		San Francisco	
	2022	2021	2022	2021	2022	2021	2022	2021	2022	2021	2022	2021	2022	2021
Capital accounts														
Capital paid-in	1,050	1,102	1,219	1,284	788	682	221	171	372	349	738	814	5,011	4,857
Surplus (including accumulated other comprehensive loss)	203	221	236	257	153	137	43	34	72	70	143	163	971	973
Total Reserve Bank capital	1,253	1,323	1,455	1,541	941	819	264	205	444	419	881	977	5,982	5,830
Consolidated variable interest entities formed to administer credit and liquidity facilities: Non-controlling interest	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Total Reserve Bank capital and consolidated variable interest entities non-controlling interest	1,253	1,323	1,455	1,541	941	819	264	205	444	419	881	977	5,982	5,830
Total liabilities and capital accounts	**603,124**	**607,782**	**578,801**	**609,857**	**128,753**	**142,017**	**63,391**	**82,735**	**113,060**	**145,863**	**431,596**	**469,890**	**889,653**	**977,623**

Note: Components may not sum to totals because of rounding.

[1] Contract amount of agreements.

[2] Treasury securities, government-sponsored enterprise debt securities, and general agency and government-sponsored enterprise mortgage-backed securities (GSE MBS) are presented at amortized cost, net of unamortized premiums and unamortized discounts.

[3] Treasury securities and government-sponsored debt securities may be lent to primary dealers to facilitate the effective conduct of open market operations. Holdings are presented net of securities lent.

[4] The Federal Reserve Bank of Boston is the primary beneficiary of MS Facilities LLC, and the Federal Reserve Bank of New York is the primary beneficiary of Municipal Liquidity Facility LLC and Term Asset-Backed Securities Loan Facility II LLC. As a result, the accounts and results of operations of those LLCs are included in the combined financial statements of the Federal Reserve Banks.

[5] Valued daily at market exchange rates.

[6] Dollar value of foreign currency held under these agreements valued at the exchange rate to be used when the foreign currency is returned to the foreign central bank. This exchange rate equals the market exchange rate used when the foreign currency was acquired from the foreign central bank.

[7] "Deferred asset—remittances to the Treasury" represents the shortfall in earnings from the most recent point remittances to the Treasury were suspended. "Accrued remittances to the Treasury" represents the estimated weekly remittances to the U.S. Treasury. Total amounts are reported based on the net position of all Reserve Banks accrued remittances and deferred assets.

[8] Includes depository institution overdrafts. In 2021, furniture and equipment is reported in bank premises and equipment, net. Prior year furniture and equipment was reclassified to align with current year presentation.

[9] Includes deposits of government-sponsored enterprises (GSEs) and international and designated financial market utilities. Also includes certain deposit accounts for services provided by the Reserve Banks as fiscal agents of the United States. Includes foreign official deposit accounts.

[10] Includes accrued benefit costs and cash collateral posted by counterparties under commitments to purchase and sell federal agency and GSE MBS.

* Less than $500,000.

n/a Not applicable.

Table G.8B. Statement of condition of the Federal Reserve Banks, December 31, 2022 and 2021 Supplemental information—collateral held against Federal Reserve notes: Federal Reserve agents' accounts

Millions of dollars

Item	2022	2021
Federal Reserve notes outstanding	2,618,832	2,436,967
Less: Notes held by Federal Reserve Banks not subject to collateralization	359,871	249,828
Collateralized Federal Reserve notes	**2,258,961**	**2,187,139**
Collateral for Federal Reserve notes		
Gold certificates	11,037	11,037
Special drawing rights certificates	5,200	5,200
U.S. Treasury securities[1]	2,242,724	2,170,902
Total collateral	**2,258,961**	**2,187,139**

[1] Face value. Includes compensation to adjust for the effect of inflation on the original face value of inflation-indexed securities.

Table G.9. Income and expenses of the Federal Reserve Banks, by Bank, 2022
Thousands of dollars

Item	Total	Boston	New York	Philadelphia	Cleveland	Richmond
Current income						
Interest income						
Primary, secondary, and seasonal loans	87,400	2,394	15,130	1,990	172	884
Other loans, net	67,467	14	10,617	40	13,056	598
Interest income on securities purchased under agreements to resell	18	0	9	0	0	1
Treasury securities, net	115,871,598	2,219,829	60,994,325	2,606,026	4,519,995	7,993,814
Federal agency and government-sponsored enterprise mortgage-backed securities, net	53,958,758	1,033,538	28,406,611	1,213,463	2,104,660	3,722,386
Government-sponsored enterprise debt securities, net	132,725	2,531	70,049	2,979	5,165	9,147
Foreign currency denominated investments, net	−2,612	−136	−778	−84	−134	−605
Central bank liquidity swaps[1]	17,856	770	6,213	662	1,741	3,584
Total interest income	170,133,210	3,258,940	89,502,176	3,825,076	6,644,655	11,729,809
Income from priced services	466,467	0	133,512	0	0	0
Securities lending fees	77,904	1,508	40,754	1,761	3,056	5,387
Other income	6,151	107	3,814	108	193	332
Total other income	550,522	1,615	178,080	1,869	3,249	5,719
Total current income	**170,683,732**	**3,260,555**	**89,680,256**	**3,826,945**	**6,647,904**	**11,735,528**
Net expenses						
Salaries and other benefits	4,070,647	282,606	810,514	160,314	219,597	598,674
Building	319,027	33,896	74,859	15,521	17,952	23,190
Equipment	249,630	8,486	22,475	9,747	10,344	115,324
Software costs	416,234	8,779	34,687	5,008	11,954	256,540
Recoveries	−314,892	−38,856	−22,896	−21,830	−6,817	−44,350
Expenses capitalized[2]	−138,994	−17,316	−29,406	−298	−19,970	−5,616
Other expenses	771,252	134,777	354,834	64,367	64,778	−601,519
Total operating expenses before pension expense and reimbursements	5,372,904	412,372	1,245,067	232,829	297,838	342,243
System pension service costs[3]	946,071	0	946,071	0	0	0
Reimbursable services to government agencies	−845,909	−4,040	−190,183	−2,406	−118,491	−10,368
Operating expenses	5,473,065	408,332	2,000,955	230,423	179,347	331,875
Interest expense on securities sold under agreements to repurchase	41,967,031	838,002	21,551,095	962,906	1,673,532	2,922,775
Interest to depository institutions and others	60,405,339	989,893	38,460,131	868,321	1,562,693	4,671,262
Other expenses	4,395	87	2,263	101	175	306
Net expenses	107,849,830	2,236,314	62,014,444	2,061,751	3,415,747	7,926,218
Current net income	62,833,902	1,024,241	27,665,812	1,765,194	3,232,157	3,809,310
Additions to (+) and deductions from (−) current net income						
Profit on sales of Treasury securities	−5,079	−102	−2,604	−117	−203	−354
Losses on sales of federal agency and government-sponsored enterprise mortgage-backed securities	−234,204	−4,325	−125,857	−5,177	−8,962	−16,026

(continued)

Table G.9—*continued*

Item	Total	Boston	New York	Philadelphia	Cleveland	Richmond
Foreign currency translation (losses)	−1,761,841	−77,578	−604,630	−64,488	−163,958	−358,855
Other components of net benefit cost	786,976	20,227	632,928	8,201	6,629	26,400
Net additions or deductions	−34,104	−9	−23,519	−6	−7,700	−2,344
Net additions or deductions to current net income	−1,248,252	−61,787	−123,682	−61,587	−174,194	−351,179
Assessments by Board						
Board expenditures[4]	1,015,000	43,363	353,601	37,055	97,970	204,463
Cost of currency	1,053,616	44,956	214,418	41,065	65,492	94,054
Consumer Financial Protection Bureau[5]	722,200	31,901	247,174	26,517	67,310	147,271
Assessments by the Board of Governors	2,790,816	120,220	815,193	104,637	230,772	445,788
Consolidated variable interest entities						
Net income from consolidated variable interest entities	1,741,927	1,615,099	126,827	0	0	0
Non-controlling interest in consolidated variable interest entities (income), net	−1,701,018	−1,601,611	−99,407	0	0	0
Reserve Bank and consolidated variable interest entities net income before providing for remittances to the Treasury	58,835,743	855,722	26,754,357	1,598,970	2,827,191	3,012,343
Earnings remittances to the Treasury	59,445,569	826,952	27,601,067	1,596,554	2,774,888	2,866,787
Net (loss) income after providing for remittances to the Treasury	−609,826	28,770	−846,710	2,416	52,303	145,556
Other comprehensive income	1,818,927	24,908	1,303,473	32,855	37,213	105,433
Comprehensive income	1,209,101	53,678	456,763	35,271	89,515	250,989
Distribution of comprehensive income						
Dividends on capital stock	1,209,101	53,854	405,773	43,150	112,781	237,622
Transferred to/from surplus and change in accumulated other comprehensive income	0	−175	50,991	−7,879	−23,266	13,367
Remittances transferred to the Treasury[6]	76,030,136	1,135,969	40,146,207	1,614,755	2,920,964	4,300,505
Deferred asset increase	−16,584,567	−309,017	−12,545,140	−18,201	−146,076	−1,433,718
Earnings remittances to the Treasury, net	59,445,569	826,952	27,601,067	1,596,554	2,774,888	2,866,787
Total distribution of comprehensive income	**60,654,670**	**880,631**	**28,057,831**	**1,631,825**	**2,864,403**	**3,117,776**

Note: Components may not sum to totals because of rounding.

1 Represents interest income recognized on swap agreements with foreign central banks.

2 Includes expenses for labor and materials capitalized and depreciated or amortized as charges to activities in the periods benefited.

3 Reflects the effect of the Financial Accounting Standards Board's Codification Topic (ASC 715) Compensation-Retirement Benefits. Pension service costs for the System Retirement Plan is recorded on behalf of the System in the books of the Federal Reserve Bank of New York.

4 For additional details, see the Board of Governors Financial Statements at https://www.federalreserve.gov/aboutthefed/audited-annual-financial-statements.htm.

5 The Board of Governors assesses the Reserve Banks to fund the operations of the Consumer Financial Protection Bureau. These assessments are allocated to each Reserve Bank based on each Reserve Bank's capital and surplus balances as of the most recent quarter.

6 Represents excess earnings remitted to the Treasury after providing for the cost of operations, payment of dividends, and reservation of surplus. On a weekly basis, if earnings become less than the cost of operations, payment of dividends, and reservation of surplus, the Reserve Banks suspend weekly remittances to the Treasury and record a deferred asset.

Table G.9. Income and expenses of the Federal Reserve Banks, by Bank, 2022—*continued*
Thousands of dollars

Item	Atlanta	Chicago	St. Louis	Minneapolis	Kansas City	Dallas	San Francisco
Current income							
Interest income							
Primary, secondary, and seasonal loans	5,045	7,309	235	695	3,998	3,514	46,034
Other loans, net	35	65	419	24,754	667	200	17,000
Interest income on securities purchased under agreements to resell	1	1	0	0	0	1	2
Treasury securities, net	7,374,727	7,504,607	1,739,248	841,127	1,738,388	5,727,895	12,611,618
Federal agency and government-sponsored enterprise mortgage-backed securities, net	3,433,859	3,493,951	809,779	391,730	809,397	2,666,955	5,872,430
Government-sponsored enterprise debt securities, net	8,424	8,548	1,983	966	1,983	6,536	14,414
Foreign currency denominated investments, net	−222	−113	−41	−50	−32	2	−417
Central bank liquidity swaps[1]	586	678	359	91	185	427	2,562
Total interest income	10,822,455	11,015,046	2,551,982	1,259,313	2,554,586	8,405,530	18,563,643
Income from priced services	235,961	96,994	0	0	0	0	0
Securities lending fees	4,991	5,112	1,182	561	1,180	3,885	8,524
Other income	307	314	74	53	76	256	518
Total other income	241,259	102,420	1,256	614	1,257	4,141	9,042
Total current income	**11,063,714**	**11,117,466**	**2,553,238**	**1,259,927**	**2,555,843**	**8,409,671**	**18,572,685**
Net expenses							
Salaries and other benefits	295,386	337,286	250,420	180,699	317,975	217,948	399,228
Building	19,755	30,535	17,095	14,153	22,299	21,401	28,372
Equipment	15,056	13,373	5,960	5,321	13,236	12,399	17,908
Software costs	16,173	7,710	6,626	3,367	32,790	7,140	25,458
Recoveries	−7,899	−19,509	−8,516	−14,001	−42,182	−29,918	−58,118
Expenses capitalized [2]	−1,539	−4,676	−2,705	−9,797	−24,974	−3,689	−19,005
Other expenses	185,707	122,337	207,793	25,932	45,883	60,709	105,653
Total operating expenses before pension expense and reimbursements	522,639	487,056	476,673	205,674	365,027	285,990	499,496
System pension service costs[3]	0	0	0	0	0	0	0
Reimbursable services to government agencies	−22,477	−4,157	−280,481	−47,289	−143,837	−19,668	−2,513
Operating expenses	500,162	482,900	196,192	158,385	221,189	266,322	496,984
Interest expense on securities sold under agreements to repurchase	2,741,266	2,859,796	657,353	297,993	653,577	2,147,004	4,661,732
Interest to depository institutions and others	1,247,330	4,617,626	385,016	251,123	485,366	1,906,061	4,960,516
Other expenses	287	298	69	31	68	224	487
Net expenses	4,489,045	7,960,620	1,238,630	707,532	1,360,200	4,319,611	10,119,719
Current net income	6,574,669	3,156,846	1,314,608	552,395	1,195,643	4,090,060	8,452,966
Additions to (+) and deductions from (−) current net income							
Profit on sales of Treasury securities	−332	−347	−80	−36	−79	−260	−565
Profit losses on sales of federal agency and government-sponsored enterprise mortgage-backed securities	−14,572	−14,494	−3,385	−1,732	−3,400	−11,233	−25,044

(continued)

Table G.9—*continued*

Item	Atlanta	Chicago	St. Louis	Minneapolis	Kansas City	Dallas	San Francisco
Foreign currency translation (losses)	−66,615	−67,723	−34,653	−11,405	−18,548	−37,930	−255,455
Other components of net benefit cost	886	21,416	14,184	11,479	13,271	10,906	20,450
Net additions or deductions	124	−79	−388	−9	−36	−36	−101
Net additions or deductions to current net income	−80,509	−61,227	−24,322	−1,703	−8,792	−38,553	−260,715
Assessments by Board							
Board expenditures[4]	32,777	37,656	21,204	5,800	10,515	25,273	145,323
Cost of currency	164,215	81,404	34,352	19,764	32,285	92,723	168,888
Consumer Financial Protection Bureau[5]	26,478	26,848	14,845	4,312	7,648	17,573	104,323
Assessments by the Board of Governors	223,470	145,909	70,401	29,876	50,448	135,569	418,534
Consolidated variable interest entities							
Net income from consolidated variable interest entities	0	0	0	0	0	0	0
Non-controlling interest in consolidated variable interest entities (income), net	0	0	0	0	0	0	0
Reserve Bank and consolidated variable interest entities net income before providing for remittances to the Treasury	6,270,691	2,949,711	1,219,885	520,816	1,136,403	3,915,937	7,773,716
Earnings remittances to the Treasury	6,306,503	2,973,115	1,208,093	539,113	1,143,026	3,945,870	7,663,601
Net (loss) income after providing for remittances to the Treasury	−35,812	−23,404	11,792	−18,297	−6,623	−29,933	110,115
Other comprehensive income	60,071	51,657	33,859	37,450	25,733	44,761	61,514
Comprehensive income	24,259	28,253	45,651	19,153	19,110	14,828	171,629
Distribution of comprehensive income							
Dividends on capital stock	41,606	49,215	29,511	10,407	17,099	34,747	173,336
Transferred to/from surplus and change in accumulated other comprehensive income	−17,347	−20,962	16,140	8,746	2,011	−19,919	−1,707
Remittances transferred to the Treasury[6]	6,306,503	4,394,803	1,208,093	539,113	1,143,026	4,029,267	8,424,603
Deferred asset increase	0	−1,421,688	0	0	0	−83,397	−761,002
Earnings remittances to the Treasury, net	6,306,503	2,973,115	1,208,093	539,113	1,143,026	3,945,870	7,663,601
Total distribution of comprehensive income	**6,330,762**	**3,001,368**	**1,253,744**	**558,266**	**1,162,136**	**3,960,698**	**7,835,230**

Note: Components may not sum to totals because of rounding.

1 Represents interest income recognized on swap agreements with foreign central banks.

2 Includes expenses for labor and materials capitalized and depreciated or amortized as charges to activities in the periods benefited.

3 Reflects the effect of the Financial Accounting Standards Board's Codification Topic (ASC 715) Compensation-Retirement Benefits. Pension service costs for the System Retirement Plan is recorded on behalf of the System in the books of the Federal Reserve Bank of New York.

4 For additional details, see the Board of Governors Financial Statements at https://www.federalreserve.gov/aboutthefed/audited-annual-financial-statements.htm.

5 The Board of Governors assesses the Reserve Banks to fund the operations of the Consumer Financial Protection Bureau. These assessments are allocated to each Reserve Bank based on each Reserve Bank's capital and surplus balances as of the most recent quarter.

6 Represents excess earnings remitted to the Treasury after providing for the cost of operations, payment of dividends, and reservation of surplus. On a weekly basis, if earnings become less than the cost of operations, payment of dividends, and reservation of surplus, the Reserve Banks suspend weekly remittances to the Treasury and record a deferred asset.

Table G.10. Income and expenses of the Federal Reserve Banks, 1914–2022

Thousands of dollars

Federal Reserve Bank and period	Current income	Net expenses	Net additions or deductions (−)[1]	Assessments by the Board of Governors			Other comprehensive income (loss)	Dividends paid	Distributions to the U.S. Treasury		Transferred to/from surplus[4]	Transferred to/from surplus and change in accumulated other comprehensive income[5]
				Board expenditures	Costs of currency	Consumer Financial Protection Bureau and Office of Financial Research[2]			Statutory transfers[3]	Interest on Federal Reserve notes		
All banks												
1914–15	2,173	2,018	6	302	n/a	n/a	n/a	217	n/a	n/a	n/a	n/a
1916	5,218	2,082	−193	192	n/a	n/a	n/a	1,743	n/a	n/a	n/a	n/a
1917	16,128	4,922	−1,387	238	n/a	n/a	n/a	6,804	1,134	n/a	n/a	1,134
1918	67,584	10,577	−3,909	383	n/a	n/a	n/a	5,541	n/a	n/a	n/a	48,334
1919	102,381	18,745	−4,673	595	n/a	n/a	n/a	5,012	2,704	n/a	n/a	70,652
1920	181,297	27,549	−3,744	710	n/a	n/a	n/a	5,654	60,725	n/a	n/a	82,916
1921	122,866	33,722	−6,315	741	n/a	n/a	n/a	6,120	59,974	n/a	n/a	15,993
1922	50,499	28,837	−4,442	723	n/a	n/a	n/a	6,307	10,851	n/a	n/a	−660
1923	50,709	29,062	−8,233	703	n/a	n/a	n/a	6,553	3,613	n/a	n/a	2,546
1924	38,340	27,768	−6,191	663	n/a	n/a	n/a	6,682	114	n/a	n/a	−3,078
1925	41,801	26,819	−4,823	709	n/a	n/a	n/a	6,916	59	n/a	n/a	2,474
1926	47,600	24,914	−3,638	722	1,714	n/a	n/a	7,329	818	n/a	n/a	8,464
1927	43,024	24,894	−2,457	779	1,845	n/a	n/a	7,755	250	n/a	n/a	5,044
1928	64,053	25,401	−5,026	698	806	n/a	n/a	8,458	2,585	n/a	n/a	21,079
1929	70,955	25,810	−4,862	782	3,099	n/a	n/a	9,584	4,283	n/a	n/a	22,536
1930	36,424	25,358	−93	810	2,176	n/a	n/a	10,269	17	n/a	n/a	−2,298
1931	29,701	24,843	311	719	1,479	n/a	n/a	10,030	n/a	n/a	n/a	−7,058
1932	50,019	24,457	−1,413	729	1,106	n/a	n/a	9,282	2,011	n/a	n/a	11,021
1933	49,487	25,918	−12,307	800	2,505	n/a	n/a	8,874	n/a	n/a	n/a	−917
1934	48,903	26,844	−4,430	1,372	1,026	n/a	n/a	8,782	n/a	n/a	−60	6,510
1935	42,752	28,695	−1,737	1,406	1,477	n/a	n/a	8,505	298	n/a	28	607
1936	37,901	26,016	486	1,680	2,178	n/a	n/a	7,830	227	n/a	103	353
1937	41,233	25,295	−1,631	1,748	1,757	n/a	n/a	7,941	177	n/a	67	2,616
1938	36,261	25,557	2,232	1,725	1,630	n/a	n/a	8,019	120	n/a	−419	1,862
1939	38,501	25,669	2,390	1,621	1,356	n/a	n/a	8,110	25	n/a	−426	4,534
1940	43,538	25,951	11,488	1,704	1,511	n/a	n/a	8,215	82	n/a	−54	17,617
1941	41,380	28,536	721	1,840	2,588	n/a	n/a	8,430	141	n/a	−4	571
1942	52,663	32,051	−1,568	1,746	4,826	n/a	n/a	8,669	198	n/a	50	3,554
1943	69,306	35,794	23,768	2,416	5,336	n/a	n/a	8,911	245	n/a	135	40,327
1944	104,392	39,659	3,222	2,296	7,220	n/a	n/a	9,500	327	n/a	201	48,410
1945	142,210	41,666	−830	2,341	4,710	n/a	n/a	10,183	248	n/a	262	81,970
1946	150,385	50,493	−626	2,260	4,482	n/a	n/a	10,962	67	n/a	28	81,467
1947	158,656	58,191	1,973	2,640	4,562	n/a	n/a	11,523	36	75,284	87	8,366
1948	304,161	64,280	−34,318	3,244	5,186	n/a	n/a	11,920	n/a	166,690	n/a	18,523

(continued)

Table G.10—*continued*

Federal Reserve Bank and period	Current income	Net expenses	Net additions or deductions (−)[1]	Assessments by the Board of Governors			Other comprehensive income (loss)	Dividends paid	Distributions to the U.S. Treasury		Transferred to/from surplus[4]	Transferred to/from surplus and change in accumulated other comprehensive income[5]
				Board expenditures	Costs of currency	Consumer Financial Protection Bureau and Office of Financial Research[2]			Statutory transfers[3]	Interest on Federal Reserve notes		
1949	316,537	67,931	−12,122	3,243	6,304	n/a	n/a	12,329	n/a	193,146	n/a	21,462
1950	275,839	69,822	36,294	3,434	7,316	n/a	n/a	13,083	n/a	196,629	n/a	21,849
1951	394,656	83,793	−2,128	4,095	7,581	n/a	n/a	13,865	n/a	254,874	n/a	28,321
1952	456,060	92,051	1,584	4,122	8,521	n/a	n/a	14,682	n/a	291,935	n/a	46,334
1953	513,037	98,493	−1,059	4,100	10,922	n/a	n/a	15,558	n/a	342,568	n/a	40,337
1954	438,486	99,068	−134	4,175	6,490	n/a	n/a	16,442	n/a	276,289	n/a	35,888
1955	412,488	101,159	−265	4,194	4,707	n/a	n/a	17,712	n/a	251,741	n/a	32,710
1956	595,649	110,240	−23	5,340	5,603	n/a	n/a	18,905	n/a	401,556	n/a	53,983
1957	763,348	117,932	−7,141	7,508	6,374	n/a	n/a	20,081	n/a	542,708	n/a	61,604
1958	742,068	125,831	124	5,917	5,973	n/a	n/a	21,197	n/a	524,059	n/a	59,215
1959	886,226	131,848	98,247	6,471	6,384	n/a	n/a	22,722	n/a	910,650	n/a	−93,601
1960	1,103,385	139,894	13,875	6,534	7,455	n/a	n/a	23,948	n/a	896,816	n/a	42,613
1961	941,648	148,254	3,482	6,265	6,756	n/a	n/a	25,570	n/a	687,393	n/a	70,892
1962	1,048,508	161,451	−56	6,655	8,030	n/a	n/a	27,412	n/a	799,366	n/a	45,538
1963	1,151,120	169,638	615	7,573	10,063	n/a	n/a	28,912	n/a	879,685	n/a	55,864
1964	1,343,747	171,511	726	8,655	17,230	n/a	n/a	30,782	n/a	1,582,119	n/a	−465,823
1965	1,559,484	172,111	1,022	8,576	23,603	n/a	n/a	32,352	n/a	1,296,810	n/a	27,054
1966	1,908,500	178,212	996	9,022	20,167	n/a	n/a	33,696	n/a	1,649,455	n/a	18,944
1967	2,190,404	190,561	2,094	10,770	18,790	n/a	n/a	35,027	n/a	1,907,498	n/a	29,851
1968	2,764,446	207,678	8,520	14,198	20,474	n/a	n/a	36,959	n/a	2,463,629	n/a	30,027
1969	3,373,361	237,828	−558	15,020	22,126	n/a	n/a	39,237	n/a	3,019,161	n/a	39,432
1970	3,877,218	276,572	11,442	21,228	23,574	n/a	n/a	41,137	n/a	3,493,571	n/a	32,580
1971	3,723,370	319,608	94,266	32,634	24,943	n/a	n/a	43,488	n/a	3,356,560	n/a	40,403
1972	3,792,335	347,917	−49,616	35,234	31,455	n/a	n/a	46,184	n/a	3,231,268	n/a	50,661
1973	5,016,769	416,879	−80,653	44,412	33,826	n/a	n/a	49,140	n/a	4,340,680	n/a	51,178
1974	6,280,091	476,235	−78,487	41,117	30,190	n/a	n/a	52,580	n/a	5,549,999	n/a	51,483
1975	6,257,937	514,359	−202,370	33,577	37,130	n/a	n/a	54,610	n/a	5,382,064	n/a	33,828
1976	6,623,220	558,129	7,311	41,828	48,819	n/a	n/a	57,351	n/a	5,870,463	n/a	53,940
1977	6,891,317	568,851	−177,033	47,366	55,008	n/a	n/a	60,182	n/a	5,937,148	n/a	45,728
1978	8,455,309	592,558	−633,123	53,322	60,059	n/a	n/a	63,280	n/a	7,005,779	n/a	47,268
1979	10,310,148	625,168	−151,148	50,530	68,391	n/a	n/a	67,194	n/a	9,278,576	n/a	69,141
1980	12,802,319	718,033	−115,386	62,231	73,124	n/a	n/a	70,355	n/a	11,706,370	n/a	56,821
1981	15,508,350	814,190	−372,879	63,163	82,924	n/a	n/a	74,574	n/a	14,023,723	n/a	76,897
1982	16,517,385	926,034	−68,833	61,813	98,441	n/a	n/a	79,352	n/a	15,204,591	n/a	78,320
1983	16,068,362	1,023,678	−400,366	71,551	152,135	n/a	n/a	85,152	n/a	14,228,816	n/a	106,663
1984	18,068,821	1,102,444	−412,943	82,116	162,606	n/a	n/a	92,620	n/a	16,054,095	n/a	161,996

(continued)

Table G.10—*continued*

Federal Reserve Bank and period	Current income	Net expenses	Net additions or deductions (−)[1]	Assessments by the Board of Governors			Other compre-hensive income (loss)	Dividends paid	Distributions to the U.S. Treasury		Transferred to/from surplus[4]	Trans-ferred to/from surplus and change in accumu-lated other compre-hensive income[5]
				Board expendi-tures	Costs of currency	Consumer Financial Protection Bureau and Office of Financial Research[2]			Statutory transfers[3]	Interest on Federal Reserve notes		
1985	18,131,983	1,127,744	1,301,624	77,378	173,739	n/a	n/a	103,029	n/a	17,796,464	n/a	155,253
1986	17,464,528	1,156,868	1,975,893	97,338	180,780	n/a	n/a	109,588	n/a	17,803,895	n/a	91,954
1987	17,633,012	1,146,911	1,796,594	81,870	170,675	n/a	n/a	117,499	n/a	17,738,880	n/a	173,771
1988	19,526,431	1,205,960	−516,910	84,411	164,245	n/a	n/a	125,616	n/a	17,364,319	n/a	64,971
1989	22,249,276	1,332,161	1,254,613	89,580	175,044	n/a	n/a	129,885	n/a	21,646,417	n/a	130,802
1990	23,476,604	1,349,726	2,099,328	103,752	193,007	n/a	n/a	140,758	n/a	23,608,398	n/a	180,292
1991	22,553,002	1,429,322	405,729	109,631	261,316	n/a	n/a	152,553	n/a	20,777,552	n/a	228,356
1992	20,235,028	1,474,531	−987,788	128,955	295,401	n/a	n/a	171,763	n/a	16,774,477	n/a	402,114
1993	18,914,251	1,657,800	−230,268	140,466	355,947	n/a	n/a	195,422	n/a	15,986,765	n/a	347,583
1994	20,910,742	1,795,328	2,363,862	146,866	368,187	n/a	n/a	212,090	n/a	20,470,011	n/a	282,122
1995	25,395,148	1,818,416	857,788	161,348	370,203	n/a	n/a	230,527	n/a	23,389,367	n/a	283,075
1996	25,164,303	1,947,861	−1,676,716	162,642	402,517	n/a	n/a	255,884	5,517,716	14,565,624	n/a	635,343
1997	26,917,213	1,976,453	−2,611,570	174,407	364,454	n/a	n/a	299,652	20,658,972	0	n/a	831,705
1998	28,149,477	1,833,436	1,906,037	178,009	408,544	n/a	n/a	343,014	17,785,942	8,774,994	n/a	731,575
1999	29,346,836	1,852,162	−533,557	213,790	484,959	n/a	n/a	373,579	n/a	25,409,736	n/a	479,053
2000	33,963,992	1,971,688	−1,500,027	188,067	435,838	n/a	n/a	409,614	n/a	25,343,892	n/a	4,114,865
2001	31,870,721	2,084,708	−1,117,435	295,056	338,537	n/a	n/a	428,183	n/a	27,089,222	n/a	517,580
2002	26,760,113	2,227,078	2,149,328	205,111	429,568	n/a	n/a	483,596	n/a	24,495,490	n/a	1,068,598
2003	23,792,725	2,462,658	2,481,127	297,020	508,144	n/a	n/a	517,705	n/a	22,021,528	n/a	466,796
2004	23,539,942	2,238,705	917,870	272,331	503,784	n/a	n/a	582,402	n/a	18,078,003	n/a	2,782,587
2005	30,729,357	2,889,544	−3,576,903	265,742	477,087	n/a	n/a	780,863	n/a	21,467,545	n/a	1,271,672
2006	38,410,427	3,263,844	−158,846	301,014	491,962	n/a	n/a	871,255	n/a	29,051,678	n/a	4,271,828
2007	42,576,025	3,510,206	198,417	296,125	576,306	n/a	324,481	992,353	n/a	34,598,401	n/a	3,125,533
2008	41,045,582	4,870,374	3,340,628	352,291	500,372	n/a	−3,158,808	1,189,626	n/a	31,688,688	n/a	2,626,053
2009	54,463,121	5,978,795	4,820,204	386,400	502,044	n/a	1,006,813	1,428,202	n/a	47,430,237	n/a	4,564,460
2010	79,300,937	6,270,420	9,745,562	422,200	622,846	42,286	45,881	1,582,785	n/a	79,268,124	n/a	883,724
2011	85,241,366	7,316,643	2,015,991	472,300	648,798	281,712	−1,161,848	1,577,284	n/a	75,423,597	n/a	375,175
2012	81,586,102	7,798,353	18,380,835	490,001	722,301	387,279	−52,611	1,637,934	n/a	88,417,936	n/a	460,528
2013	91,149,953	9,134,656	−1,029,750	580,000	701,522	563,200	2,288,811	1,649,277	n/a	79,633,271	n/a	147,088
2014	116,561,512	10,714,872	−2,718,283	590,000	710,807	563,000	−1,611,569	1,685,826	n/a	96,901,695	n/a	1,064,952
2015	114,233,676	11,139,956	−1,305,513	705,000	689,288	489,700	366,145	1,742,745	25,955,921	91,143,493	n/a	−18,571,798
2016	111,743,998	17,262,620	−114,255	709,000	700,728	596,200	−183,232	711,423	91,466,545	n/a	n/a	0
2017	114,193,573	33,397,138	1,932,579	740,000	723,534	573,000	650,808	783,599	80,559,689	n/a	n/a	0
2018	112,861,657	47,353,636	−382,959	838,000	848,807	337,100	41,831	998,703	65,319,280	n/a	n/a	−3,175,000
2019	103,220,435	45,423,825	−169,458	814,000	836,975	518,600	148,923	713,931	54,892,569	n/a	n/a	0
2020	102,036,168	13,454,957	2,266,152	947,000	831,133	517,300	−1,275,509	386,312	86,890,110	n/a	n/a	0

(continued)

Table G.10—*continued*

Federal Reserve Bank and period	Current income	Net expenses	Net additions or deductions (−)[1]	Assessments by the Board of Governors: Board expenditures	Assessments by the Board of Governors: Costs of currency	Assessments by the Board of Governors: Consumer Financial Protection Bureau and Office of Financial Research[2]	Other comprehensive income (loss)	Dividends paid	Distributions to the U.S. Treasury: Statutory transfers[3]	Distributions to the U.S. Treasury: Interest on Federal Reserve notes	Transferred to/from surplus[4]	Transferred to/from surplus and change in accumulated other comprehensive income[5]
2021	123,058,495	11,007,927	−1,489,296	970,000	1,035,105	627,500	1,639,423	583,417	109,024,672	n/a	n/a	−40,000
2022	170,683,732	107,849,830	−1,207,343	1,015,000	1,053,616	722,200	1,818,927	1,209,101	59,445,569	n/a	n/a	0
Total 1914–2022	**2,254,845,973**	**395,831,462**	**38,325,309**	**15,032,118**	**20,536,193**	**6,219,077**	**888,467**	**27,611,295**	**617,668,313**	**1,198,433,402**	**−4**	**12,727,389[6]**
Aggregate for each Bank, 1914–2022												
Boston	73,878,101	11,549,390	295,253	653,479	1,052,292	276,392	41,149	1,210,606	14,143,542	44,842,511	135	500,293
New York	1,067,369,651	198,568,747	27,119,791	4,458,819	5,172,239	2,028,121	86,164	7,897,847	326,527,894	545,077,826	−433	4,844,653
Philadelphia	66,814,100	11,405,414	730,993	842,836	920,212	350,793	58,338	1,835,953	15,530,033	36,308,189	291	410,218
Cleveland	89,682,974	12,449,161	519,960	1,177,183	1,197,252	507,582	73,759	2,091,809	22,292,764	49,612,575	−10	941,444
Richmond	160,227,714	29,019,362	1,921,039	2,934,041	1,769,040	1,315,121	184,509	5,548,570	37,997,029	81,295,580	−72	2,474,693
Atlanta	148,864,392	23,361,371	1,682,019	918,702	2,394,858	329,514	111,498	1,745,118	45,767,940	75,616,315	5	553,867
Chicago	172,110,146	28,057,214	1,835,672	894,241	2,039,111	215,339	75,894	1,599,100	30,754,944	109,806,844	12	652,529
St. Louis	49,519,469	6,935,086	389,153	249,470	702,317	81,051	60,877	449,342	10,126,010	31,149,772	−27	258,580
Minneapolis	27,453,718	6,102,614	418,286	230,166	400,467	36,837	61,786	483,249	5,043,377	15,436,029	65	196,397
Kansas City	54,532,388	9,406,057	566,686	251,428	709,968	63,603	18,177	479,056	9,536,022	34,476,668	−9	192,598
Dallas	94,535,816	14,876,219	1,082,174	380,947	1,365,982	99,663	75,388	697,179	28,072,498	49,889,286	55	269,109
San Francisco	249,857,494	44,100,829	1,764,284	2,040,809	2,812,453	915,068	40,929	3,573,465	71,876,263	124,921,807	−17	1,433,011
Total	**2,254,845,973**	**395,831,462**	**38,325,309**	**15,032,118**	**20,536,193**	**6,219,077**	**888,467**	**27,611,295**	**617,668,313**	**1,198,433,402**	**−4**	**12,727,389**

Note: Components may not sum to totals because of rounding.

1 For 1987 and subsequent years, includes the cost of services provided to the Treasury by Federal Reserve Banks for which reimbursement was not received.

2 Starting in 2010, as required under the Dodd-Frank Wall Street Reform and Consumer Protection Act of 2010, the Board of Governors began assessing the Reserve Banks to fund the operations of the Consumer Financial Protection Bureau and, for a two-year period beginning July 21, 2010, the Office of Financial Research. These assessments are allocated to the Reserve Banks based on each Reserve Bank's capital and surplus balances as of the most recent quarter.

3 Represents transfers made as a franchise tax from 1917 through 1932; transfers made under section 13b of the Federal Reserve Act from 1935 through 1947; transfers made under section 7 of the Federal Reserve Act for 1996, 1997, and 2015 to present. Starting in 2022, represents earnings remittances to the Treasury, net of the deferred asset change.

4 Transfers made under section 13b of the Federal Reserve Act.

5 Transfers made under section 7 of the Federal Reserve Act. Beginning in 2006, accumulated other comprehensive income is reported as a component of surplus.

6 The $12,727,389 thousand transferred to surplus was reduced by direct charges of $500 thousand for charge-off on Bank premises (1927); $139,300 thousand for contributions to capital of the Federal Deposit Insurance Corporation (1934); $4 thousand net upon elimination of section 13b surplus (1958); $106,000 thousand (1996), $107,000 thousand (1997), and $3,752,000 thousand (2000) transferred to the Treasury as statutorily required; and $1,848,716 thousand related to the implementation of SFAS No. 158 (2006) and was increased by a transfer of $11,131 thousand from reserves for contingencies (1955), leaving a balance of $6,785,000 thousand on December 31, 2021.

n/a Not applicable.

Table G.11. Operations in principal departments of the Federal Reserve Banks, 2019–22

Operation	2022	2021	2020	2019
Millions of pieces				
Currency processed	29,695	28,172	26,596	33,042
Currency destroyed	3,884	1,351	2,044	5,141
Coin received	31,932	30,370	33,994	56,101
Checks handled				
U.S. government checks[1]	46	131	83	52
Postal money orders	65	70	74	80
Commercial	3,400	3,657	3,767	4,389
Securities transfers[2]	22	19	21	19
Funds transfers[3]	196	204	184	168
Automated clearinghouse transactions				
Commercial	18,645	17,895	16,549	15,584
Government	1,661	1,959	1,878	1,704
Millions of dollars				
Currency processed	707,947	657,495	561,278	665,246
Currency destroyed	83,929	20,445	30,560	84,323
Coin received	2,770	2,811	3,294	5,408
Checks handled				
U.S. government checks[1]	220,813	272,637	205,905	149,337
Postal money orders	19,467	20,161	20,558	21,412
Commercial	8,947,734	8,757,539	7,874,721	8,317,894
Securities transfers[2]	341,806,733	310,827,220	361,728,932	345,813,248
Funds transfers[3]	1,060,257,294	991,810,545	840,483,038	695,835,129
Automated clearinghouse transactions				
Commercial	38,685,527	31,446,232	31,446,232	28,081,631
Government	7,890,609	8,118,875	6,852,715	5,787,018

1 Includes government checks handled electronically (electronic checks).
2 Data on securities transfers do not include reversals.
3 Data on funds transfers do not include non-value transfers.

Table G.12. Number and annual salaries of officers and employees of the Federal Reserve Banks, December 31, 2022

Federal Reserve Bank (including branches)	President		Other officers[1]		Employees				Total	
	Number	Annual salary (dollars)	Number	Annual salaries (dollars)[2]	Number: Full time	Number: Part time[3]	Number: Temporary/ hourly[4]	Annual salaries (dollars)[2, 4]	Number[5]	Annual salaries (dollars)
Boston	1	462,365	116	33,476,988	1,138	8	10	156,243,265	1,273	190,182,618
New York	1	528,800	594	174,556,547	2,360	16	0	352,262,417	2,971	527,347,764
Philadelphia	1	461,600	74	18,850,500	783	6	14	90,500,343	878	109,812,443
Cleveland	1	454,600	97	23,611,700	994	18	38	108,991,556	1,148	133,057,856
Richmond	1	430,500	107	25,346,600	1,465	6	6	160,574,323	1,585	186,351,423
Atlanta	1	443,100	119	29,567,200	1,564	11	119	172,110,272	1,814	202,120,572
Chicago	1	477,900	163	43,303,305	1,496	19	0	188,207,286	1,679	231,988,491
St. Louis	1	428,800	113	29,083,200	1,321	12	12	144,301,389	1,459	173,813,389
Minneapolis	1	461,700	65	16,344,974	961	38	17	101,603,005	1,082	118,409,679
Kansas City	1	429,000	120	26,904,800	2,041	16	5	189,529,039	2,183	216,862,839
Dallas	1	440,600	79	19,478,060	1,200	11	12	126,300,123	1,303	146,218,783
San Francisco	1	512,300	135	37,782,260	1,743	14	20	223,471,931	1,913	261,766,491
Federal Reserve Information Technology	n/a	n/a	86	22,813,400	1,615	1	10	219,790,937	1,712	242,604,337
Office of Employee Benefits	n/a	n/a	16	4,773,600	43	1	0	6,600,120	60	11,373,720
Total	**12**	**5,531,265**	**1,884**	**505,893,134**	**18,724**	**177**	**263**	**2,240,486,006**	**21,060**	**2,751,910,404**

Note: Components may not sum to totals because of rounding.
1 Number and Annual Salaries columns include the first vice president but exclude the president.
2 Annual salaries include shift differentials and premium pay. Shift differentials and premium pay should be calculated as follows: 12/31/22 salary percent shift differential or percent premium pay. Neither the shift differential nor premium pay amount should be derived from actual expenses.
3 Part-time employees are those who regularly work less than a full shift each day or regularly work less than a full week. The annual salary rate for part-time employees can be estimated. (Example: $150 per 20-hour workweek times 52 weeks = $7,800 annual salary.)
4 Provide the cumulative salary earned for active temporary/hourly employees for the year ending 12/31/22.
5 Total Number column should include the president in the total count.
n/a Not applicable.

Table G.13. Acquisition costs and net book value of the premises of the Federal Reserve Banks and Branches, December 31, 2022

Thousands of dollars

Federal Reserve Bank or Branch	Acquisition costs			Net book value	Other real estate
	Land	Buildings (including vaults)[1]	Total		
Boston	27,293	233,855	261,148	95,781	n/a
New York	68,694	658,467	727,161	376,609	n/a
Philadelphia	8,146	175,204	183,350	80,026	n/a
Cleveland	4,219	170,608	174,827	89,759	n/a
Cincinnati	4,877	34,091	38,968	10,187	n/a
Richmond	32,524	207,746	240,270	100,425	n/a
Baltimore	7,916	45,984	53,900	22,324	n/a
Charlotte	7,885	47,197	55,082	24,556	n/a
Atlanta	25,669	166,308	191,977	114,008	n/a
Birmingham	5,347	13,646	18,993	9,515	n/a
Jacksonville	2,185	28,452	30,637	12,316	n/a
New Orleans	3,785	17,512	21,297	8,534	n/a
Miami	4,884	45,621	50,505	23,235	n/a
Chicago	7,459	288,495	295,954	119,480	n/a
Detroit	13,812	76,379	90,191	60,262	n/a
St. Louis	9,467	156,055	165,522	75,577	n/a
Memphis	2,472	25,690	28,162	9,438	n/a
Minneapolis	28,199	123,878	152,077	86,155	n/a
Helena	3,316	10,431	13,747	6,030	n/a
Kansas City	38,986	222,037	261,023	188,539	n/a
Denver	4,966	19,624	24,590	13,322	n/a
Omaha	5,282	15,159	20,441	12,014	n/a
Dallas	37,959	167,052	205,011	112,282	n/a
El Paso	263	6,222	6,485	1,223	n/a
Houston	32,969	106,990	139,959	95,847	n/a
San Francisco	20,988	157,204	178,192	69,674	n/a
Los Angeles	5,217	81,124	86,341	35,657	n/a
Salt Lake City	1,294	6,936	8,230	2,196	n/a
Seattle	13,101	50,512	63,613	44,481	n/a
Phoenix	1,089	15,722	16,811	9,673	n/a
Total	**430,263**	**3,374,201**	**3,804,464**	**1,909,125**	**n/a**

[1] Includes expenditures for construction at some offices, pending allocation to appropriate accounts.

n/a Not applicable.

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