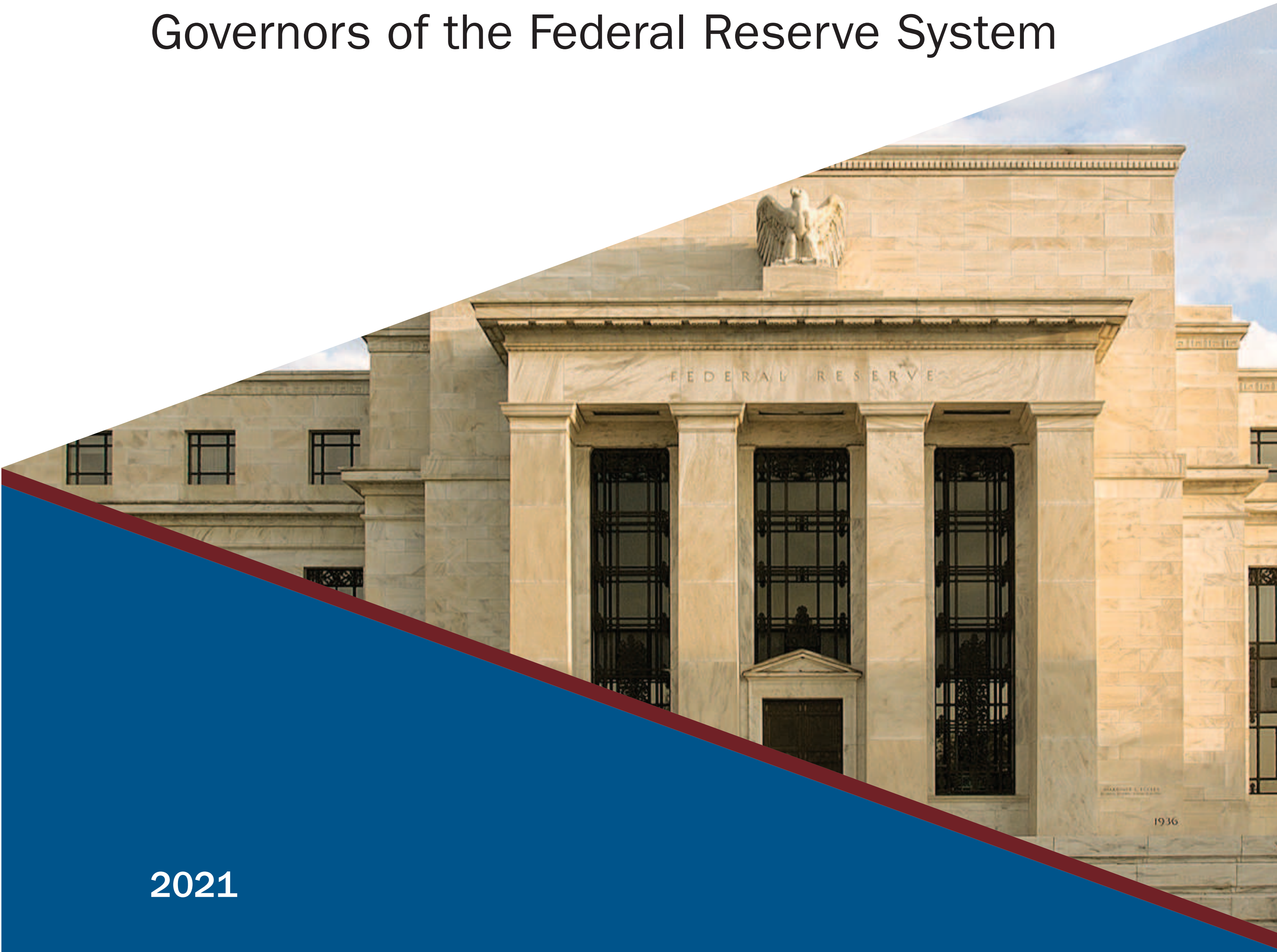
REPORT TO CONGRESS

108th

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



2021

BOARD OF GOVERNORS OF THE FEDERAL RESERVE SYSTEM

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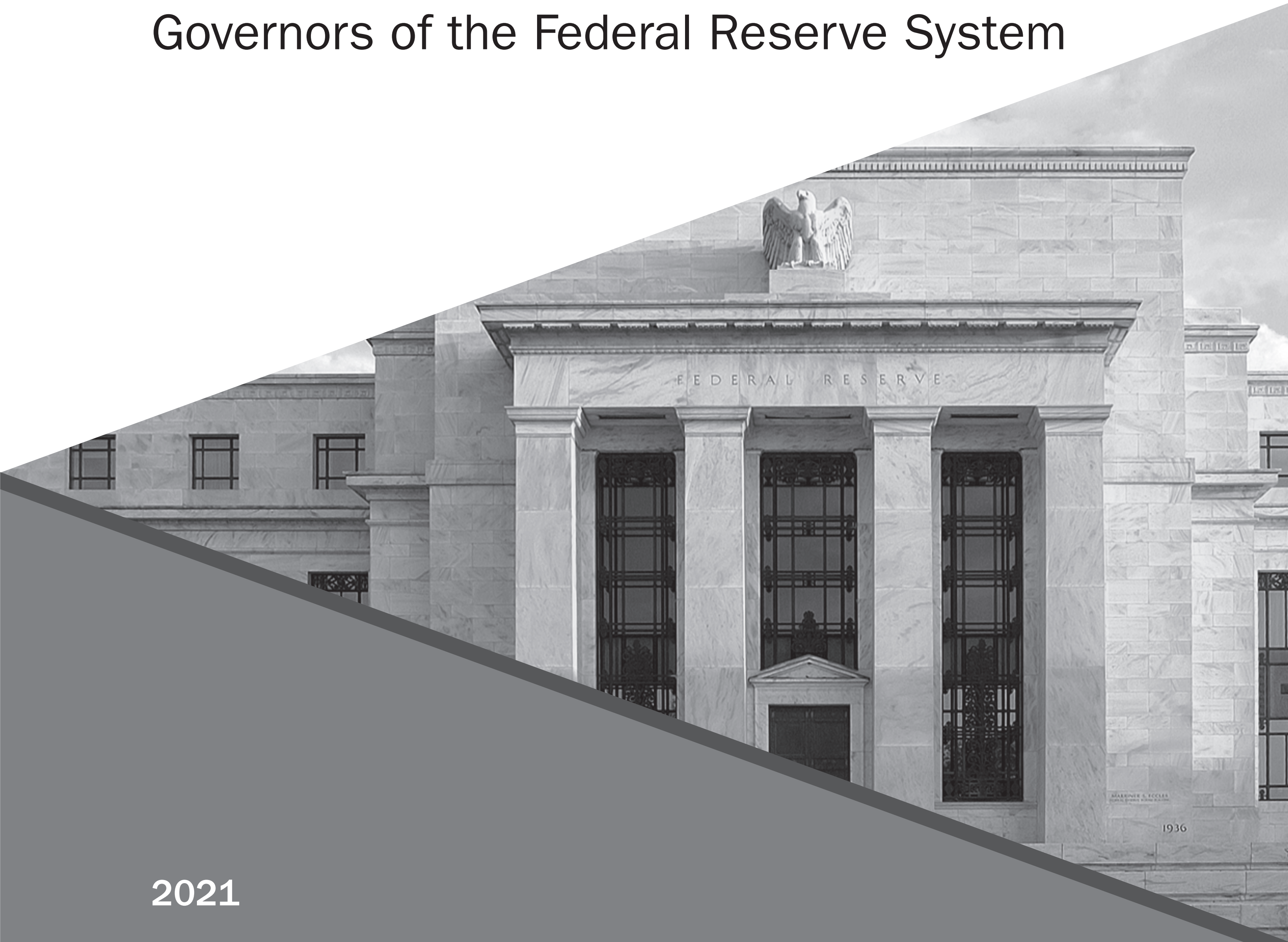


2021

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.

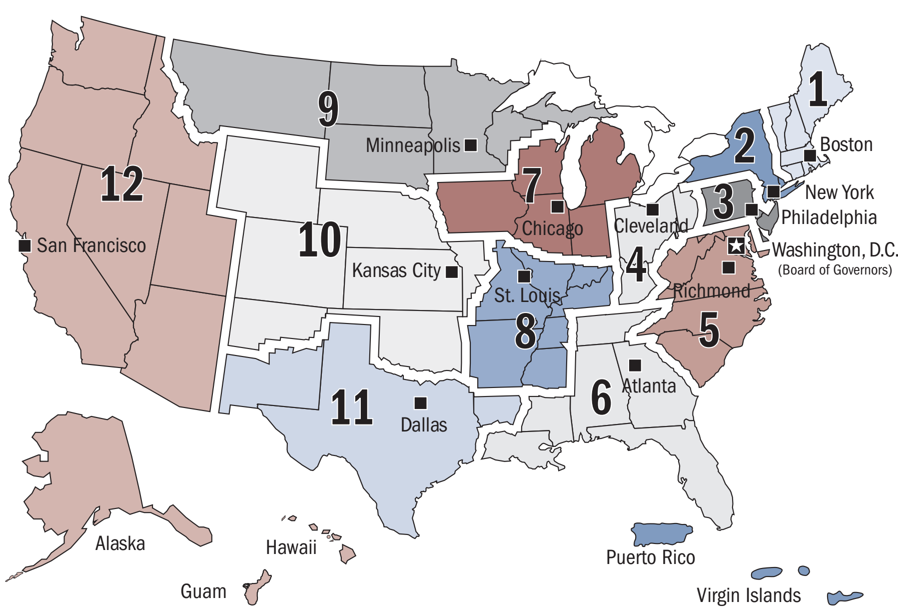
1 | Overview

This report covers the calendar-year 2021 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 2021 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 2021, with excerpts and select figures from the *Monetary Policy Report* published in February 2022 and July 2021.[1] The report, submitted semiannually to the Congress, is delivered concurrently with testimony from the Federal Reserve Board Chair.[2]

February 2022 Summary

U.S. economic activity posted further impressive gains in the second half of last year, but inflation rose to its highest level since the early 1980s. The labor market tightened substantially further amid high demand for workers and constrained supply, with the unemployment rate reaching the median of Federal Open Market Committee (FOMC) participants' estimates of its longer-run normal level and nominal wages rising at their fastest pace in decades. With demand strong, and amid ongoing supply chain bottlenecks and constrained labor supply, inflation increased appreciably last year, running well above the FOMC's longer-run objective of 2 percent and broadening out to a wider range of items. As 2022 began, the rapid spread of the Omicron variant appeared to be causing a slowdown in some sectors of the economy, but with Omicron cases having declined sharply since mid-January, the slowdown is expected to be brief.

Over the second half of last year, the FOMC held its policy rate near zero to support the continued economic recovery. The Committee began phasing out net asset purchases in November and accelerated the pace of the phaseout in December; net asset purchases will end in early March. With inflation well above the FOMC's longer-run objective and a strong labor market, the Committee expects it will soon be appropriate to raise the target range for the federal funds rate.

Recent Economic and Financial Developments

Economic activity and the labor market. In the second half of 2021, gross domestic product (GDP) growth slowed somewhat from its brisk first-half pace but nevertheless rose at a solid annu-

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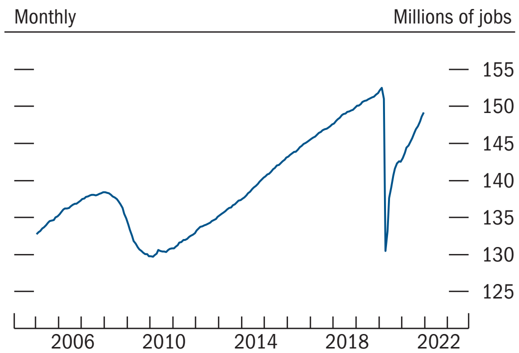
[1] Those complete reports are available on the Board's website at https://www.federalreserve.gov/monetarypolicy/files/20220225_mprfullreport.pdf (February 2022) and https://www.federalreserve.gov/monetarypolicy/files/20210709_mprfullreport.pdf (July 2021).

[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."

Figure 2.1. Nonfarm payroll employment

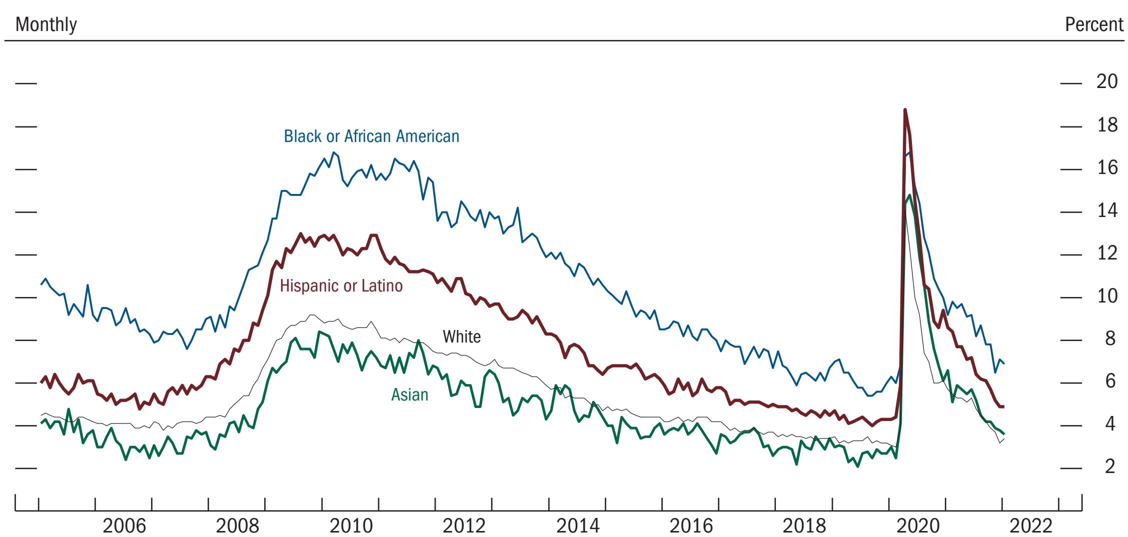


Note: The data extend through January 2022.

Source: Bureau of Labor Statistics via Haver Analytics.

alized rate of 4.6 percent. Average monthly job gains remained robust at 575,000 in the second half (figure 2.1). The unemployment rate has plummeted almost 2 percentage points since June and, at 4 percent in January, has reached the median of FOMC participants' estimates of its longer-run normal level. Moreover, unemployment declines have been widespread across demographic groups (figure 2.2). That said, labor force participation only crept up last year and remains constrained. The tight labor supply, in conjunction with a continued surge in labor demand, has resulted in strong nominal wage growth, especially for low-wage workers. Supply bottlenecks also continued to significantly limit activity throughout the second half, while the Delta and Omicron waves led to notable, but apparently temporary, slowdowns in activity.

Figure 2.2. Unemployment rate, by race and ethnicity

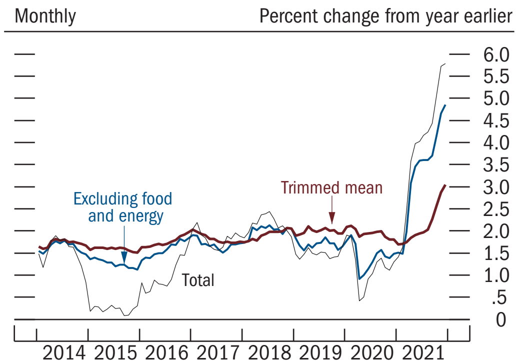


Note: Unemployment rate measures total unemployed as a percentage of the labor force. Persons whose ethnicity is identified as Hispanic or Latino may be of any race. Small sample sizes preclude reliable estimates for Native Americans and other groups for which monthly data are not reported by the Bureau of Labor Statistics. The data extend through January 2022.

Source: Bureau of Labor Statistics via Haver Analytics.

Inflation. The personal consumption expenditures (PCE) price index rose 5.8 percent over the 12 months ending in December, and the index that excludes food and energy items (so-called core inflation) was up 4.9 percent—the highest readings for both measures in roughly 40 years (figure 2.3). Upward pressure on inflation from prices of goods experiencing both supply chain bottlenecks and strong demand, such as motor vehicles and furniture, has persisted, and elevated inflation has broadened out to a wider range of items. Services inflation has also stepped up further, reflecting strong wage growth in some service sectors and a significant increase in housing rents. While measures of near-term inflation expectations moved substantially higher over the course of last year, measures of longer-term inflation expectations have moved up only modestly; they remain in the range observed over the decade before the pandemic and thus appear broadly consistent with the FOMC's longer-run inflation objective of 2 percent.

Figure 2.3. Change in the price index for personal consumption expenditures



Note: The data extend through December 2021.

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

Financial conditions. Yields on nominal Treasury securities across maturities increased notably since mid-2021, with much of the increase having occurred in the past couple of months, as the expected timing for the beginning of the removal of monetary policy accommodation has moved forward significantly. Equity prices decreased slightly, on net, and corporate bond yields rose but remain low, with stable corporate credit quality. Financing conditions for consumer credit continue to be largely accommodative except for borrowers with low credit scores. Mortgage rates for households remain low despite recent increases. Bank lending standards have eased across most loan categories, and bank credit has expanded. All told, financing conditions have been accommodative for businesses and households.

Financial stability. While some financial vulnerabilities remain elevated, the large banks at the core of the financial system continue to be resilient. Measures of valuation pressures on risky assets remain high compared with historical values. Nonfinancial-sector leverage has broadly declined, and credit growth in the household sector has been driven almost exclusively by residential mortgages and auto loans to prime-rated borrowers. Vulnerabilities from financial-sector leverage are within their historical range, with relatively lower leverage at banks partially offset by higher leverage at life insurers and hedge funds. Funding markets remain stable. Domestic banks continue to maintain significant levels of high-quality liquid assets, while assets under management at prime and tax-exempt money market funds have declined further since mid-2021. The Federal Reserve continues to evaluate the potential systemic risks posed by hedge funds and digital assets and is closely monitoring the transition away from LIBOR. (See the box "Developments Related to Financial Stability" on pages 34–35 of the February 2022 *Monetary Policy Report*.)

International developments. Foreign GDP has continued to recover briskly, on balance, despite successive waves of the pandemic, which have been mirrored in slowdowns and rebounds in economic activity. This recovery has been supported by vaccination rates that have steadily increased in both advanced foreign economies (AFEs) and emerging market economies (EMEs). Inflation rose notably in many economies in the second half of last year, importantly boosted by higher energy and other commodity prices as well as supply chain constraints. Several emerging market foreign central banks and a few advanced-economy foreign central banks have raised policy rates, though foreign monetary and fiscal policies have generally continued to be accommodative.

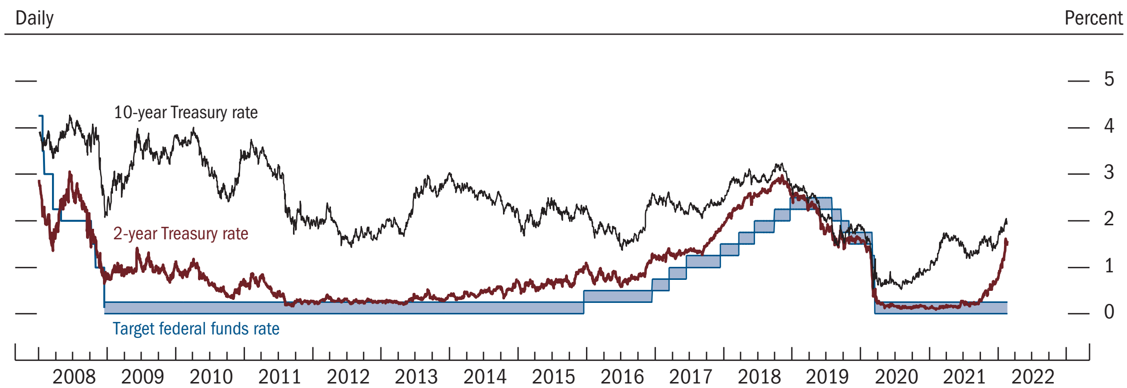
Foreign financial conditions have tightened modestly but are generally contained. In AFEs, sovereign yields have increased since the first half of last year on firming expectations for higher policy rates. The change in financial conditions in EMEs has been relatively muted in the face of the shift in monetary policy in some advanced economies. The trade-weighted value of the dollar appreciated modestly, on net, over the past six months. Recent geopolitical tensions related to the Russia–Ukraine situation are a source of uncertainty in global financial and commodity markets.

Monetary Policy

Interest rate policy. The FOMC has continued to keep the target range for the federal funds rate at 0 to ¼ percent since the previous *Monetary Policy Report* (figure 2.4). With inflation well above the Committee's 2 percent longer-run goal and a strong labor market, the Committee expects it will soon be appropriate to raise the target range for the federal funds rate.

Balance sheet policy. From June 2020 until November 2021, the Federal Reserve expanded its holdings of Treasury securities by $80 billion per month and its holdings of agency mortgage-backed securities by $40 billion per month. In December 2020, the Committee indicated that it would continue to increase its holdings of securities at least at this pace until the economy had made substantial further progress toward its maximum-employment and price-stability goals. Last November, the Committee judged that this criterion had been achieved and began to reduce the monthly pace of its net asset purchases. In December, in light of inflation developments and further improvements in the labor market, the Committee announced it would double the pace of reductions in its monthly net asset purchases. At its January meeting, the FOMC decided to continue to reduce its net asset purchases at this accelerated pace, which will bring them to an end in early March, and issued a statement of principles for its planned approach for significantly

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 22, 2022.

Source: Department of the Treasury; Federal Reserve Board.

reducing the size of the Federal Reserve's balance sheet.[3] A number of participants at the meeting commented that conditions would likely warrant beginning to reduce the size of the balance sheet sometime later this year.[4]

In assessing the appropriate stance of monetary policy, the Committee will continue to monitor the implications of incoming information for the economic outlook. The Committee is firmly committed to its price-stability and maximum-employment goals and is prepared to use its tools to prevent higher inflation from becoming entrenched while promoting a sustainable expansion and strong labor market.

Special Topics

Low labor supply. Labor supply has been slow to rebound even as labor demand has been remarkably strong. The labor force participation rate remains well below estimates of its longer-run trend, principally reflecting a wave of retirements among older individuals and increases in the number of people out of the labor force and engaged in caregiving responsibilities. The ongoing pandemic has also affected labor supply through fear of the virus or the need to quarantine. Moreover, savings buffers accumulated during the pandemic may have enabled some people to remain out of the labor force. (See the box "The Limited Recovery of Labor Supply" on pages 8–9 of the February 2022 *Monetary Policy Report*.)

3 See the January 26, 2022, press release regarding the Principles for Reducing the Size of the Federal Reserve's Balance Sheet, available at https://www.federalreserve.gov/newsevents/pressreleases/monetary20220126c.htm.

4 The minutes for the January 2022 FOMC meeting note these comments and are available on the Federal Reserve's website at https://www.federalreserve.gov/monetarypolicy/fomcminutes20220126.htm.

Wage and employment growth across jobs and workers. Wage and employment gains were widespread across jobs and industries last year, with the lowest-wage jobs experiencing the largest gains in both median wages and employment. Wage growth in the leisure and hospitality industry accelerated sharply, which, together with a lagging employment rebound and high job openings, suggests a lack of available workers in the industry. Median wages also increased across racial and ethnic groups, leaving differences in wage levels across groups little changed relative to 2019. (See the box "Differences in Wage and Employment Growth across Jobs and Workers" on pages 11–12 of the February 2022 *Monetary Policy Report*.)

Broadening of inflation. Higher PCE price inflation broadened out over the course of 2021, with the share of products experiencing notable price increases moving appreciably higher. The broadening was evident in both goods and services, though most of last year's very high inflation readings were concentrated in goods, a reflection of the strong demand and supply bottlenecks that have particularly affected these items. (See the box "How Widespread Has the Rise in Inflation Been?" on pages 15–17 of the February 2022 *Monetary Policy Report*.)

Supply bottlenecks. Supply chain bottlenecks have plagued the economy for much of the past year. Against a backdrop of robust demand for goods, global distribution networks have been strained, and domestic manufacturers have had trouble finding the materials and labor needed to fill orders for their products. U.S. ports have been congested amid record volumes of shipping, and delivery times for materials have remained elevated. Supply shortages of semiconductors have been particularly acute and have weighed heavily on motor vehicle production and sales. While there are some signs of improvement, general supply chain bottlenecks are not expected to resolve for some time. (See the box "Supply Chain Bottlenecks in U.S. Manufacturing and Trade" on pages 19–21 of the February 2022 *Monetary Policy Report*.)

Developments in the Federal Reserve's balance sheet. The size of the Federal Reserve's balance sheet continued to grow, albeit at a slower rate given the reduced monthly pace of net asset purchases since November. However, reserve balances—the largest liability on the Federal Reserve's balance sheet—were little changed, on net, reflecting growth in nonreserve liabilities such as currency and overnight reverse repurchase agreements (ON RRP). The elevated level of reserves continued to put broad downward pressure on short-term interest rates, while the decline in Treasury bill supply over 2021 has contributed to a shortage of short-term investments. Amid these developments, the ON RRP facility continued to serve its intended purpose of helping to provide a floor under short-term interest rates and support effective implementation of monetary policy. (See the box "Developments in the Federal Reserve's Balance Sheet and Money Markets" on pages 44–45 of the February 2022 *Monetary Policy Report*.)

July 2021 Summary

Over the first half of 2021, progress on vaccinations has led to a reopening of the economy and strong economic growth, supported by accommodative monetary and fiscal policy. However, the effects of the COVID-19 pandemic have continued to weigh on the U.S. economy, and employment has remained well below pre-pandemic levels. Furthermore, shortages of material inputs and difficulties in hiring have held down activity in a number of industries. In part because of these bottlenecks and other largely transitory factors, personal consumption expenditures (PCE) prices rose 3.9 percent over the 12 months ending in May.

Over the first half of the year, the Federal Open Market Committee (FOMC) held its policy rate near zero and continued to purchase Treasury securities and agency mortgage-backed securities to support the economic recovery. These measures, along with the Committee's guidance on interest rates and the Federal Reserve's balance sheet, will help ensure that monetary policy continues to deliver powerful support to the economy until the recovery is complete.

Recent Economic and Financial Developments

The labor market. The labor market continued to recover over the first six months of 2021. Job gains averaged 540,000 per month, and the unemployment rate moved down from 6.7 percent in December to 5.9 percent in June. Although labor market improvement has been rapid, the unemployment rate remained elevated in June, and labor force participation has not moved up from the low rates that have prevailed for much of the past year. A surge in labor demand that has outpaced the recovery in labor supply has resulted in a jump in job vacancies and a step-up in wage gains in recent months.

Inflation. Consumer price inflation, as measured by the 12-month change in the PCE price index, moved up from 1.2 percent at the end of last year to 3.9 percent in May. The 12-month measure of inflation that excludes food and energy items (so-called core inflation) was 3.4 percent in May, up from 1.4 percent at the end of last year. Some of the strength in recent 12-month inflation readings reflects the comparison of current prices with prices that sank at the onset of the pandemic as households curtailed spending—a transitory result of "base effects." More lasting but likely still temporary upward pressure on inflation has come from prices for goods experiencing supply chain bottlenecks, such as motor vehicles and appliances. In addition, prices for some services, such as airfares and lodging, have moved up sharply in recent months toward more normal levels as demand has recovered. Both survey-based and market-based measures of longer-term inflation expectations have risen since the end of last year, largely reversing the downward drift in those measures in recent years, and are in a range that is broadly consistent with the FOMC's longer-run inflation objective.

Economic activity. In the first quarter, real gross domestic product (GDP) increased 6.4 percent, propelled by a surge in household consumption and a solid increase in business investment but restrained by a substantial drawdown in inventories as firms contended with production bottlenecks. Data for the second quarter suggest a further robust increase in demand. Against a backdrop of elevated household savings, accommodative financial conditions, ongoing fiscal support, and the reopening of the economy, the strength in household spending has persisted, reflecting continued strong spending on durable goods and solid progress toward more normal levels of spending on services.

Financial conditions. Since mid-February, equity prices and yields on nominal Treasury securities at longer maturities increased, as the rapid deployment of highly effective COVID-19 vaccines in the United States and the support provided by fiscal policy boosted optimism regarding the economic outlook. Despite having increased since February, mortgage rates for households remain near historical lows. Overall financing conditions for businesses and households eased further since February, as market-based lending conditions remained accommodative and bank-lending conditions eased markedly. Large firms, as well as those households that have solid credit ratings, continued to experience ample access to financing. However, financing conditions remained tight for small businesses and households with low credit scores.

Financial stability. While some financial vulnerabilities have increased since the previous *Monetary Policy Report,* the institutions at the core of the financial system remain resilient. Asset valuations have generally risen across risky asset classes with improving fundamentals as well as increased investor risk appetite, including in equity and corporate bond markets. Vulnerabilities from both business and household debt have continued to decline in the first quarter of 2021, reflecting a slower pace of business borrowing, an improvement in business earnings, and government programs that have supported business and household incomes. Even so, business-sector debt outstanding remains high relative to income, and some businesses and households are still under considerable strain. In the financial sector, leverage at banks and broker-dealers remains low, while available measures of leverage at hedge funds increased into early 2021 and are high. Issuance volumes of collateralized loan obligations and asset-backed securities recovered strongly through the first quarter of 2021, while issuance of non-agency commercial mortgage-backed securities was weak in that quarter. Funding risks at domestic banks continued to be low in the first quarter, but structural vulnerabilities persist at some types of money market funds and bank-loan and bond mutual funds. (See the box “Developments Related to Financial Stability” on pages 30–32 of the July 2021 *Monetary Policy Report*.)

International developments. Foreign GDP growth moderated at the start of the year, as some countries tightened public health restrictions to contain renewed COVID-19 outbreaks. Compared with last spring, many foreign economies exhibited greater resilience to public-health-related restrictions, and their governments have continued to provide fiscal support. Recent indicators suggest a pickup in activity in advanced foreign economies (AFEs) this spring following an increase in vaccination rates and an easing of restrictions. However, conditions in emerging market economies (EMEs) are more mixed, in part dependent on their success in containing outbreaks and the availability of vaccines. Inflation has been rising in many economies, as the price declines seen last spring reversed and commodity prices ramped up. Monetary and fiscal policies continue to be supportive, but some foreign central banks are adopting or signaling less-accommodative policy stances.

Foreign financial conditions generally improved or held steady. Equity prices and longer-term sovereign yields increased across AFEs, boosted by their ongoing reopening. Equity markets in EMEs were mixed, and flows into dedicated emerging market funds slowed. After trending lower since the spring of 2020, the foreign exchange value of the dollar has changed little, on net, since the start of the year.

Monetary Policy

Interest rate policy. To continue to support the economic recovery, the FOMC has kept the target range for the federal funds rate near zero and has maintained the monthly pace of its asset purchases. The Committee expects it will be appropriate to maintain the current target range for the federal funds rate until labor market conditions have reached levels consistent with its assessments of maximum employment and inflation has risen to 2 percent and is on track to moderately exceed that rate for some time.

Balance sheet policy. With the federal funds rate near zero, the Federal Reserve has also continued to undertake asset purchases, increasing its holdings of Treasury securities by $80 billion per month and its holdings of agency mortgage-backed securities by $40 billion per month. These purchases help foster smooth market functioning and accommodative financial conditions, thereby supporting the flow of credit to households and businesses. The Committee expects these purchases to continue at least at this pace until substantial further progress has been made toward its maximum-employment and price-stability goals. In coming meetings, the Committee will continue to assess the economy's progress toward these goals since the Committee adopted its asset purchase guidance last December.

In assessing the appropriate stance of monetary policy, the Committee will continue to monitor the implications of incoming information for the economic outlook. The Committee is prepared to adjust the stance of monetary policy as appropriate if risks emerge that could impede the attainment of the Committee's goals.

Special Topics

The uneven recovery in labor force participation. The labor force participation rate (LFPR) has improved very little since early in the recovery and remains well below pre-pandemic levels. Relative to its February 2020 level, the LFPR remains especially low for individuals without a college education, for individuals aged 55 and older, and for Hispanics and Latinos. Factors likely contributing both to the incomplete recovery of the LFPR and to differences across groups include a surge in retirements, increased caregiving responsibilities, and individuals' fear of contracting COVID-19; expansions to the availability, duration, and level of unemployment insurance benefits may also have supported individuals who withdrew from the labor force. Many of these factors should have a diminishing effect on participation in the coming months as public health conditions continue to improve and as expanded unemployment insurance expires. (See the box "The Uneven Recovery in Labor Force Participation" on pages 8–10 of the July 2021 *Monetary Policy Report*.)

Recent inflation developments. Consumer price inflation has increased notably this spring as a surge in demand has run up against production bottlenecks and hiring difficulties. As these extraordinary circumstances pass, supply and demand should move closer to balance, and inflation is widely expected to move down. (See the box "Recent Inflation Developments" on pages 13–14 of the July 2021 *Monetary Policy Report*.)

Supply chain bottlenecks in U.S. manufacturing and trade. Supply chain bottlenecks have hampered U.S. manufacturers' ability to procure the inputs needed to meet the surge in demand that followed widespread factory shutdowns during the first half of last year. Additionally, a massive influx of goods has exceeded the capacity of U.S. ports, extending manufacturers' wait times for imported parts. The stress on supply chains is reflected in historically high order backlogs and historically low customer inventories; these stresses, together with strong demand, have led to increased price pressures. When these bottlenecks will resolve is uncertain, as they reflect the global supply chain as well as industry-specific factors, but for some goods, such as lumber, the previous sharp increases in prices have begun to reverse. (See the box "Supply Chain Bottlenecks in U.S. Manufacturing and Trade" on pages 15–17 of the July 2021 *Monetary Policy Report*.)

Inflation expectations. To avoid sustained periods of unusually low or high inflation, a fundamental aspect of the FOMC's monetary policy framework is for longer-term inflation expectations to be well anchored at the Committee's 2 percent longer-run inflation objective. Even though the pace of price increases has jumped in the first half of this year, recent readings on various measures of inflation expectations indicate that inflation is expected to return to levels broadly consistent with the FOMC's 2 percent longer-run inflation objective after a period of temporarily higher inflation. That said, upside risks to the inflation outlook in the near term have increased. (See the box "Assessing the Recent Rise in Inflation Expectations" on pages 20–22 of the July 2021 *Monetary Policy Report*.)

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 of the rules have prescribed strongly negative values of the federal funds rate since the start of the pandemic-driven recession. Because of the effective lower bound for the federal funds rate, the Federal Reserve's other monetary policy tools—namely, forward guidance and asset purchases—have been critical for providing the necessary support to the economy through this challenging period. (See the box "Monetary Policy Rules, the Effective Lower Bound, and the Economic Recovery" on pages 42–45 of the July 2021 *Monetary Policy Report*.)

The Federal Reserve's balance sheet. Since January, the growth in reserves, the drawdown of the Treasury General Account, and the surge in usage of the overnight reverse repurchase agreement (ON RRP) facility have significantly affected the composition of the Federal Reserve's liabilities. Against a backdrop of low short-term market interest rates and ample liquidity, the use of the ON RRP facility has increased substantially since April and has reached a recent high of nearly $1 trillion, compared with usage near zero in February. Factors contributing to this increase included the decline in Treasury bill supply, downward pressure on money market rates, and the recent technical adjustment to the Federal Reserve's administered rates. (See the box "Developments in the Federal Reserve's Balance Sheet and Money Markets" on pages 46–47 of the July 2021 *Monetary Policy Report*.)

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 2021, which include the following:

- monitoring vulnerabilities that affect financial stability (see figure 3.1 for a summary of key vulnerabilities)
- 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
- 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

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

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[1] For more information on how the Federal Reserve promotes a stable financial system, see *The Fed Explained,* 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.

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* on a semiannual basis.[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.

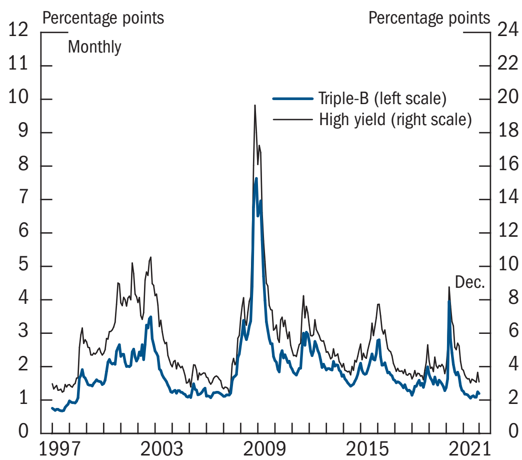
Nonetheless, it is very difficult to judge whether an asset price is overvalued relative to fundamentals. Accordingly, the Federal Reserve's analysis of asset valuation pressures typically includes a broad range of possible valuation metrics and tracks developments in areas in which asset prices are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

Fiscal and monetary policy accommodation, along with continued progress on vaccinations, continued to support a strong economic recovery during 2021 despite still-elevated levels of uncertainty about the course of the pandemic. The robust expansion and bright outlook for 2022 supported investors' risk appetite, and valuation measures during 2021 remained high relative to historical norms across most asset classes.

Prices of long-term Treasury securities, corporate bonds, and leveraged loans stood at high levels relative to their historical ranges, depressing yields. Spreads of corporate bond yields over comparable-maturity Treasury yields narrowed, particularly for speculative-grade corporate bonds,

[2] See Board of Governors of the Federal Reserve System (2021), *Financial Stability Report* (Washington: Board of Governors, May), https://www.federalreserve.gov/publications/files/financial-stability-report-20210506.pdf; and Board of Governors of the Federal Reserve System (2021), *Financial Stability Report* (Washington: Board of Governors, November), https://www.federalreserve.gov/publications/files/financial-stability-report-20211108.pdf.

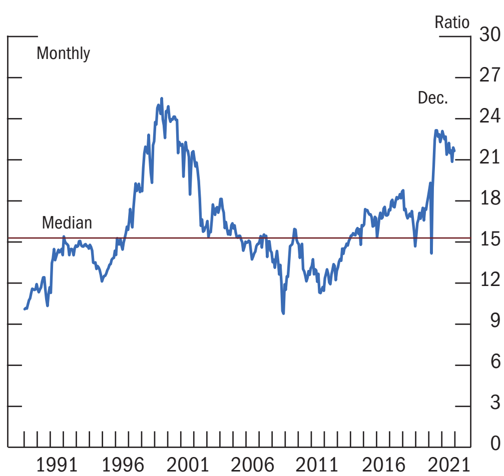
Figure 3.2. Corporate bond spreads to similar-maturity Treasury securities, 1997–2021



Note: The data extend through December 2021. 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, 1989–2021



Note: The data extend through December 2021. Based on expected earnings for 12 months ahead. The median value is 15.4.

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

and reached very low levels relative to their historical distributions (figure 3.2). With economic growth expected to continue, equity analysts boosted their forecasts for corporate earnings. However, equity prices also rose steadily throughout the year, leaving a key indicator of equity valuations, the ratio of equity prices to expected earnings, little changed at the upper end of its historical distribution (figure 3.3). Implied stock price volatility for the S&P 500 index, captured by the VIX, rebounded after a decline in the first half of the year.

Supported by low mortgage rates and strong demand interacting with some supply constraints, house prices grew at a rapid clip during 2021, outstripping increases in rents. Since the beginning of 2020, housing inventories have declined, whereas the number of active real estate buyers has increased significantly. Despite a slowdown at the end of the year, house price growth still ended the year near recent historical highs. Indicators suggest that higher house prices were not being fueled by easier lending standards. Although the maximum debt-to-income ratio for borrowers with lower credit scores ticked up in the second half of the year, lending standards for these borrowers reportedly remained tighter than before the pandemic.

In 2021, aggregate commercial real estate (CRE) prices rose further above their prepandemic levels. Multifamily and industrial properties saw significant price increases, whereas retail, hotel, and office properties did not, with prices staying roughly flat. Transaction volumes recovered, approaching pre-pandemic levels toward the end of 2021. Finally, farmland prices remained elevated relative to rents.

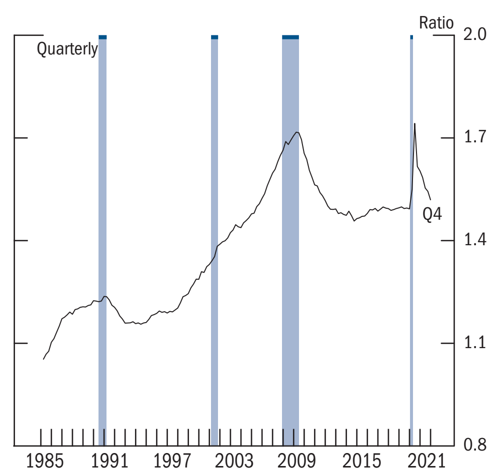
Borrowing by Households and Businesses

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.

Before the onset of the pandemic, the combined total debt of nonfinancial businesses and households had been growing roughly in line with nominal gross domestic product (GDP), leaving the credit-to-GDP ratio essentially flat from 2012 to 2019 (figure 3.4). In the first half of 2020, substantial business borrowing to build cash buffers and a precipitous drop in GDP pushed the credit-to-GDP ratio to historical highs. After that surge, the ratio declined throughout the second half of 2020 and all of 2021, returning to about the same level as in 2019.

Figure 3.4. Private nonfinancial-sector credit-to-GDP ratio, 1985–2021



Note: The data extend through 2021: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. Household debt growth picked up in 2021. Moreover, key measures of vulnerabilities arising from business debt—including debt-to-GDP, gross leverage, and interest coverage ratios—have swung widely in the past two years. As nominal GDP growth outpaced the growth of business debt, the ratio of business debt to GDP decreased throughout 2021, retracing nearly all of its early pandemic growth. The decline in this ratio was accompanied by a strong recovery in profits. The gross leverage of large businesses—the ratio of debt to assets for all publicly traded nonfinancial firms—trended down throughout 2021 and stands roughly at pre-pandemic levels.[3] As earnings among large firms continued to recover and borrowing rates remained low, the ratio of earnings to interest expenses (the interest coverage ratio) moved up steadily over the year, suggesting large firms were better able to service debt. The median interest coverage ratio among these firms rose above pre-pandemic levels and near historical highs.

Business credit quality, which deteriorated after the onset of the pandemic, has continued to improve throughout 2021. For example, the rate of corporate bond downgrades remained low. While many small businesses closed or significantly scaled back their operations as a result of the pandemic, credit quality for small businesses that have continued operating or reopened stabilized during 2021, with loan delinquencies returning to pre-pandemic levels.

Although the financial position of some households remained strained, the household sector continued to recover in 2021, supported by pandemic stimulus programs, a growing economy, and rising house prices. Household debt growth picked up in the second quarter and continued the rest of the year. Debt owed by the roughly one-half of households with prime credit scores continued to account for all the growth, driven by increases in mortgage debt. However, the ratio of household debt to nominal GDP continued to decline in 2021, as GDP growth outpaced the growth in household debt.

Mortgage debt accounts for roughly two-thirds of total household debt, with new mortgage extensions skewed toward prime borrowers in recent years. The share of mortgages in forbearance declined throughout the year and is down substantially from its peak in the second quarter of 2020.[4] Most of the remaining one-third of household debt is consumer credit, which consists primarily of student loans, auto loans, and credit card debt. Auto loan balances remained stable, on net, in 2021, driven primarily by borrowers with prime and near-prime credit scores. Student loan balances contracted slightly in 2021, maintaining a trend started at the onset of the pandemic. Protections originally in the Coronavirus Aid, Relief, and Economic Security Act—later extended by the Department of Education—guaranteed payment forbearance and stopped interest accrual through May 2022 for most federal student loans. Credit card balances remained well below their pre-pandemic levels.

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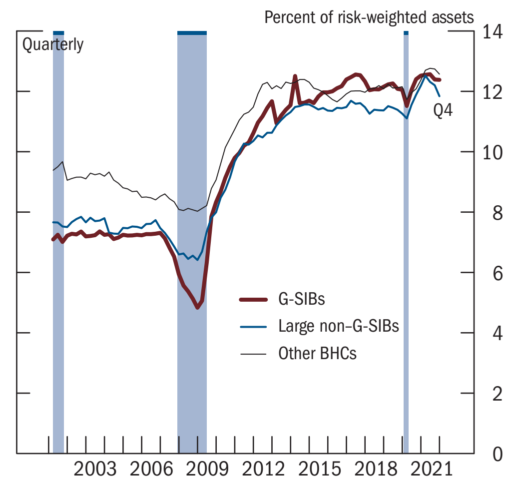
[3] This pattern is common across most firm categories, with the exception of firms in industries hard-hit by the pandemic, such as airlines, hotels, and restaurants, where leverage remains elevated.

[4] Around 900,000 borrowers remain in forbearance plans, and about 60 percent of those are expected to exit forbearance by the end of February 2022.

Leverage in the Financial System

The U.S. banking system continued to weather the pandemic well in 2021 as bank capital remained above pre-pandemic levels throughout the year. The common equity Tier 1 (CET1) ratio—a regulatory risk-based measure of bank capital adequacy—increased at the start of 2021 for most banks, exceeding pre-pandemic levels (figure 3.5). CET1 ratios for most banks slightly declined through the rest of the year, as bank credit (and, thus, risk-weighted assets) expanded and shareholder payouts increased. Bank profitability remained at the upper end of its historical distribution in 2021, driven by releases of loan loss reserves associated with improvements in the economic outlook over the first half of the year.[5]

Figure 3.5. Common equity Tier 1 ratio of banks, 2001–21



Note: The data, which extend through 2021: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.

In June, the Federal Reserve released the results of its annual bank stress tests.[6] The large banks that were tested remained well above their risk-based minimum capital requirements during a severe hypothetical recession that included, among other features, substantial stress in U.S. CRE, housing, and corporate debt markets. Restrictions on the capital distributions of banks put in place during the pandemic ended on June 30, as previously announced.[7] In addition, bank regulatory capital requirements incorporated the new 2021 stress capital buffers on October 1. These stress capital buffers were computed based on the June 2021 stress-test results.

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[5] Under accounting rules, banks prepare for possible loan losses before they occur. Loan loss provisions in the bank's income statement are expenses set aside for estimated credit losses and are added to the loan loss reserves. The decline in loan loss reserves during the first half of 2021 was notable for most loan categories, with the exception of CRE loans, consistent with elevated credit risk in some CRE segments.

[6] See Board of Governors of the Federal Reserve System (2021), "Federal Reserve Board Releases Results of Annual Bank Stress Tests, Which Show That Large Banks Continue to Have Strong Capital Levels and Could Continue Lending to Households and Businesses during a Severe Recession," press release, June 24, https://www.federalreserve.gov/newsevents/pressreleases/bcreg20210624a.htm.

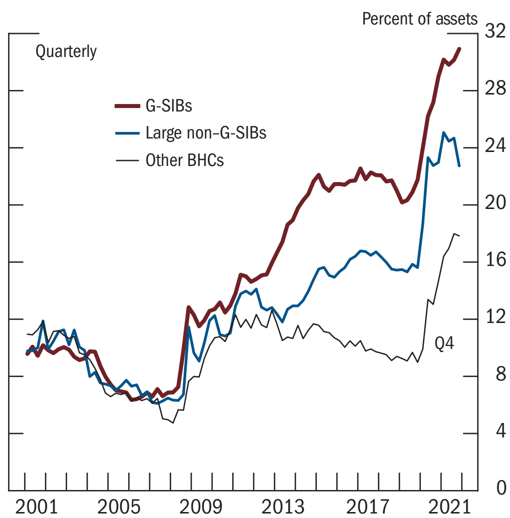
[7] See Board of Governors of the Federal Reserve System (2021), "Federal Reserve Announces Temporary and Additional Restrictions on Bank Holding Company Dividends and Share Repurchases Currently in Place Will End for Most Firms after June 30, Based on Results from Upcoming Stress Test," press release, March 25, https://www.federalreserve.gov/newsevents/pressreleases/bcreg20210325a.htm.

Outside the banking sector, leverage at large life insurance companies remained at post-2008 highs during the course of 2021. Based on a number of measures, leverage at hedge funds during 2021 stood above its historical average.

Funding Risk

High-quality liquid assets increased for U.S. global systemically important banks through most of 2021, reflecting an increase in Treasury securities, agency mortgage-backed securities (MBS), and central bank reserve balances (figure 3.6). Core deposits, which traditionally are a highly stable funding source, have remained near their highest levels as a share of liabilities since 1997. However, the share of nonoperational corporate deposits and uninsured retail deposits, which tend to be less sticky and perhaps more sensitive to interest rate movements in a high-inflation environment, rose during the second half of 2021. 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—increased to historically high levels for all banks by the end of the year. This increase was due to a rise in holdings of long-term Treasury securities and agency MBS at banks amid large deposit inflows. However, banks' strong capital positions, high levels of liquid assets, and high levels of historically stable funding sources are mitigating factors to the potential vulnerabilities from maturity transformation.

Figure 3.6. Liquid assets held by banks, 2001–21



Note: The data extend through 2021: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.

Many types of nonbank financial institutions, however, experienced funding difficulties at the onset of the pandemic. For example, prime money market funds (MMFs), particularly institutional funds, experienced runs in March 2020, with outflows reaching the same proportion of assets redeemed during the run on MMFs in 2008. Assets under management at prime MMFs steadily declined through 2021, while those at tax-exempt MMFs stayed relatively flat over the same period. Vulnerabilities associated with liquidity transformation at prime and tax-exempt MMFs contribute to the susceptibility of these funds to runs and call for structural fixes. In October 2021, the FSB published a report analyzing options to mitigate MMF vulnerabilities globally, including several potentially promising options—such as swing pricing or similar mechanisms, a minimum balance at risk, and capital buffers—many of which were considered in a report by the President's Working Group on Financial Markets that focused on U.S. MMFs in 2020.[8]

With regard to funding risk surrounding the payments system, there were two key developments. First, central counterparties managed risks while adapting to persistent volatility and elevated activity in some markets. Second, according to a variety of sources, the value of stablecoins outstanding grew roughly fivefold in 2021.[9] Stablecoins are purported to maintain a stable value relative to a national currency or other reference asset or assets. Certain stablecoins, including the most widely held, are supposed to be redeemable at any time at a stable value in U.S. dollars but are, in part, backed by assets that may become illiquid. If the assets backing a stablecoin fall in value, the issuer may not be able to meet redemptions at the promised value. Although not typically considered a cash management vehicle, stablecoins have structural vulnerabilities similar to those of other cash-like vehicles that make them susceptible to runs. Accordingly, the potential use of stablecoins in payments and their capacity to grow can also pose risks to payment and financial systems.

Domestic and International Cooperation and Coordination

The Federal Reserve cooperated and coordinated with both domestic and international institutions in 2021 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

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[8] See Financial Stability Board (2021), *Policy Proposals to Enhance Money Market Fund Resilience* (Basel, Switzerland: FSB, October), https://www.fsb.org/wp-content/uploads/P111021-2.pdf; and President's Working Group on Financial Markets (2020), *Report of the President's Working Group on Financial Markets: Overview of Recent Events and Potential Reform Options for Money Market Funds* (Washington: PWG, December), https://home.treasury.gov/system/files/136/PWG-MMF-report-final-Dec-2020.pdf.

[9] The value of stablecoins outstanding stood at around $130 billion as of October 2021, based on a November 2021 report. See President's Working Group on Financial Markets, Federal Deposit Insurance Corporation, and Office of the Comptroller of the Currency (2021), *Report on Stablecoins* (Washington: PWG, FDIC, and OCC, November), https://home.treasury.gov/system/files/136/StableCoinReport_Nov1_508.pdf.

by the FSOC as systemically important, the Federal Reserve assumes responsibility for supervising that institution.

In 2021, the FSOC continued to serve as a central venue for member agencies to coordinate risk analysis and policy enactment in the wake of the COVID-19 pandemic. The council continued to monitor the financial stability implications of the pandemic and identified three priority areas: addressing vulnerabilities from nonbank financial intermediation (NBFI), promoting resilience in the U.S. Treasury market, and enhancing the resilience of the financial system to climate-related financial risks.

In 2021, the council convened working groups on hedge funds and open-end funds to better share data and identify risks associated with both kinds of nonbank financial institutions. In June, the council also released a statement outlining how MMFs have the potential to create or amplify stresses in short-term funding markets.[10] The statement supported engagement by the Securities and Exchange Commission (SEC) to develop options to address this critical issue.

Council member agencies on the Inter-Agency Working Group on Treasury Market Surveillance (IAWG), including the Federal Reserve, in November issued a progress report reviewing policy options to strengthen the resilience of U.S. Treasury markets.[11] The IAWG's staff briefed the council on the report's findings, and the 2021 FSOC *Annual Report* included a box on the IAWG's efforts to increase resilience in these essential markets.[12]

Additionally, the council released a report identifying climate change as an emerging and increasing threat to financial stability in the United States. The Board's staff collaborated with other member agencies to draft the report and accompanying recommendations, which encourage member agencies to build capacity and expertise to ensure that climate-related financial risks are identified and managed.[13]

The report also called for the establishment of a new FSOC standing committee, the Climate-related Financial Risk Committee. This committee will identify priority areas for climate-related council work and serve as a coordinating body to share information and facilitate the development of common approaches and standards across FSOC members and interested parties.

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[10] See Financial Stability Oversight Council (2021), "Financial Stability Oversight Council's Statement on Money Market Fund Reform," statement, June 11, https://home.treasury.gov/system/files/261/FSOC_Statement_6-11-21.pdf.

[11] See Inter-Agency Working Group on Treasury Market Surveillance (2021), "Inter-Agency Working Group on Treasury Market Surveillance Releases Staff Progress Report That Reviews Potential Policies for Bolstering the Resilience of Treasury Markets," press release, November 8, https://home.treasury.gov/news/press-releases/jy0470.

[12] See the box "IAWG Work on Treasury Market Resilience" in Financial Stability Oversight Council (2021), *Annual Report* (Washington: FSOC, December), p. 35, https://home.treasury.gov/system/files/261/FSOC2021AnnualReport.pdf.

[13] See Financial Stability Oversight Council (2021), "Financial Stability Oversight Council Identifies Climate Change as an Emerging and Increasing Threat to Financial Stability," press release, October 21, https://home.treasury.gov/news/press-releases/jy0426.

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. The Federal Reserve is a member of the FSB, along with the SEC and the U.S. Treasury. In late 2021, Governor Quarles's term as the Chair of the FSB expired. Governor Brainard has been appointed as Chair of the FSB's Standing Committee on the Assessment of Vulnerabilities for a term of two years.

In the past year, the FSB engaged in many issues related to global financial stability. Specific work included monitoring the use and effectiveness of COVID-related policy response measures; assessing challenges in cross-border payments systems; reviewing global trends and risks in NBFI; assessing new sources of vulnerabilities and risks to financial stability; monitoring and evaluating channels through which climate-related risks could affect financial stability; assessing issues regarding the rapid emergence and use of stablecoins, crypto-asset markets, and other digital assets; and transitioning away from the use of LIBOR.

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

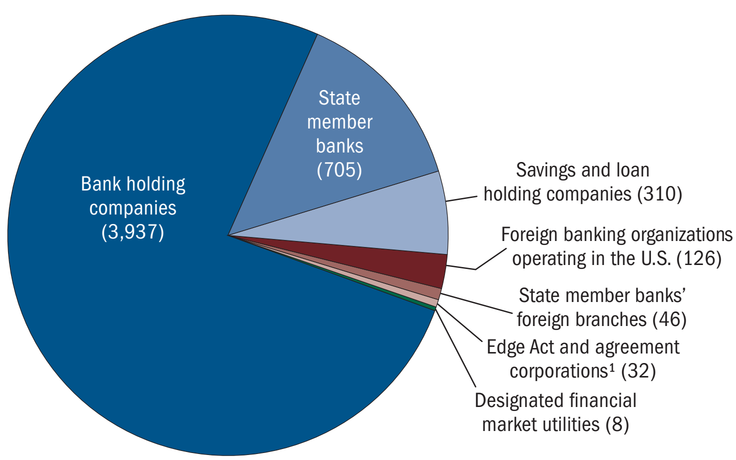
- supervising the activities of financial institutions to ensure their safety and soundness (see figure 4.1);
- developing regulatory policy (rulemakings, supervision and regulation letters, policy statements, and guidance) and acting on applications filed by banking organizations; and
- monitoring trends 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 2021, a total of 1,450 banks (excluding non-depository trust companies and private banks) were members of the Federal Reserve System, of which 705 were state chartered. Federal Reserve System member banks operated 48,400 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 17 percent of all insured U.S. commercial banks and held approximately 17 percent of all insured commercial bank assets in the United States.

Bank Holding Companies

At year-end 2021, a total of 3,937 U.S. bank holding companies (BHCs) were in operation, of which 3,523 were top-tier BHCs. These organizations controlled 3,534 insured commercial banks and held approximately 94 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	14.6
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	173	10
Large banking organizations (LBOs)	Non-LISCC U.S. firms with total assets $100 billion and greater	17	4.8
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
Small FBOs (excluding rep offices)	FBOs with combined assets less than $100 billion	108	1.1
Small FBOs (rep offices)	FBO U.S. representative offices	30	0
State member banks	SMBs within LFBO organizations	9	1.4
Regional banking organizations (RBOs)	Total assets between $10 billion and $100 billion	86	2.6
State member banks	SMBs within RBO organizations	27	0.9
Community banking organizations (CBOs)	Total assets less than $10 billion	3,602*	3
State member banks	SMBs within CBO organizations	665	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 3,546 holding companies and 56 state member banks that do not have holding companies.

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 2021, a total of 504 domestic BHCs and 45 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 232 less than $1 billion.

Savings and Loan Holding Companies

At year-end 2021, a total of 310 savings and loan holding companies (SLHCs) were in operation, of which 154 were top-tier SLHCs. These SLHCs controlled 163 depository institutions. Approximately 94 percent of SLHCs engage primarily in depository or broker dealer activities. These firms hold approximately 53 percent ($997.5 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 $1.82 trillion of total combined assets.

Depository institution holding companies significantly engaged in insurance activities. At year-end 2021, the Federal Reserve supervised six companies that own depository institutions but are significantly engaged in insurance activities. All six of these institutions were savings and loan holding companies. As of September 30, 2021, 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.

As the consolidated supervisor of these insurance organizations, the Federal Reserve evaluates an organization's risk-management practices, the financial condition of the overall organization, and the impact of the nonbank activities on the depository institution. The Federal Reserve relies to the fullest extent possible on the work of other regulators, including other federal banking regulators and state insurance regulators, as part of the overall supervisory assessment of insurance SLHCs.

The Federal Reserve's Insurance Policy Advisory Committee (IPAC) was established by the Economic Growth, Regulatory Relief, and Consumer Protection Act (EGRRCPA) to provide information, advice, and recommendations on insurance issues.[1] In 2021, the IPAC focused its advice on the impacts of the COVID event and long-term low interest rates on the U.S. insurance sector. The IPAC also provided input regarding the International Association of Insurance Supervisors' (IAIS)

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[1] More information on the IPAC can be found at https://www.federalreserve.gov/aboutthefed/ipac.htm.

development of an Insurance Capital Standard (ICS), an Aggregation Method (AM), and the criteria that will be used to assess whether the ICS and AM provide comparable outcomes.

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 (BSCA).

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.

International Activities

Foreign operations of U.S. banking organizations. At the end of 2021, a total of 26 member banks were operating 298 branches in foreign countries and overseas areas of the United States. Thirteen national banks were operating 240 of these branches, 13 state member banks were operating 46 of these branches, and 5 nonmember banks were operating the remaining 12.

[2] The Federal Reserve Banks maintain accounts for and provide services to several designated FMUs.

Edge Act and agreement corporations. At year-end 2021, out of 34 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 2021, a total of 135 foreign banks from 48 countries operated 144 state-licensed branches and agencies, of which 6 were insured by the FDIC, and 50 OCC-licensed branches and agencies, of which 4 were insured by the FDIC. These foreign banks also owned 7 Edge Act and agreement corporations. In addition, they held a controlling interest in 35 U.S. commercial banks. Altogether, the U.S. offices of these foreign banks controlled approximately 17 percent of U.S. commercial banking assets. These 135 foreign banks also operated 70 representative offices; an additional 30 foreign banks operated in the United States through a representative office.

The Federal Reserve conducted or participated with state and federal regulatory authorities in 552 examinations of foreign banks in 2021.

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. These include an assessment of a financial institution's risk-management systems, financial conditions, 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.

At the start of the COVID event, the Federal Reserve temporarily modified its supervisory programs and approaches to allow financial institutions to deploy their resources efficiently and focus on supporting their customers and local economies while meeting challenges posed by the COVID event. The Federal Reserve paused scheduled examinations or moved to monitoring activities. As conditions in the industry stabilized, many of the temporary adjustments to supervisory programs have ended and most supervisory approaches have returned to normal. All examination activities were being conducted off site at year-end. As conditions allow, examination activities will return to a mix of being conducted on site and off site. For additional information on the Federal Reserve's COVID response, see box 4.2.

In 2021, the Federal Reserve conducted 288 examinations of state member banks, 2,646 inspections of bank holding companies, and 135 inspections of savings and loan holding companies.

Box 4.2. Supervisory and Regulatory Response to COVID-19

In response to the COVID event, the Federal Reserve took a number of supervisory and regulatory actions. These actions were intended to help financial institutions deploy their resources as efficiently as possible while continuing to support their customers and local economies in a prudent and fair manner.

For more information on the Federal Reserve's response to the COVID event, 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, and are delivered concurrently with testimony from the Federal Reserve Board Vice Chair for Supervision.

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.

Table 4.2. Savings and loan holding companies, 2017–21

Entity/item	2021	2020	2019	2018	2017
Top-tier savings and loan holding companies					
Assets of more than $1 billion					
Total number	47	50	53	55	59
Total assets (billions of dollars)	1,856	2,026	1,822	1,615	1,696
Number of inspections	63	55	52	40	52
By Federal Reserve System	63	55	52	40	52
Assets of $1 billion or less					
Total number	107	119	134	139	164
Total assets (billions of dollars)	37	39	39	38	47
Number of inspections	78	91	102	107	165
By Federal Reserve System	78	91	102	107	165

Table 4.3. State member banks and bank holding companies, 2017–21

Entity/item	2021	2020	2019	2018	2017
State member banks					
Total number	705	734	754	794	815
Total assets (billions of dollars)	4,016	3,568	2,642	2,851	2,729
Number of examinations	471	502	554	563	643
By Federal Reserve System	288	263	327	321	354
By state banking agency	183	239	227	242	289
Top-tier bank holding companies					
Assets of more than $1 billion					
Total number	795	746	631	604	583
Total assets (billions of dollars)	25,185	23,811	20,037	19,233	18,762
Number of inspections	996	875	805	549	597
By Federal Reserve System[1]	919	814	761	533	574
By state banking agency	69	61	44	16	23
Assets of $1 billion or less					
Total number	2,762	2,887	3,094	3,273	3,448
Total assets (billions of dollars)	900	883	870	893	931
Number of inspections	1,801	1,967	2,122	2,216	2,318
By Federal Reserve System	1,727	1,890	2,033	2,132	2,252
By state banking agency	74	77	89	84	66
Financial holding companies					
Domestic	504	502	493	490	492
Foreign	45	44	44	44	42

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

Since the onset of the COVID event, the Federal Reserve has undertaken several stress tests. In June 2021, the Federal Reserve conducted its annual stress test, which showed that the 23 large banking firms tested had strong levels of capital and could continue lending to households and businesses during a severe recession. As a result of firms remaining well above their minimum risk-based capital requirements in that stress test, the additional restrictions on capital distributions the Board implemented to ensure firms would preserve capital during the COVID event ended. Since then, the largest banking firms have remained subject to the normal restrictions of the Board's stress capital buffer. For stress testing publications released in 2021, see box 4.3.

Information Technology Activities

Effective information technology (IT) and cybersecurity risk management is critical to the safety and soundness of financial institutions and the stability of the financial system. The Board publishes rules and guidance for supervised institutions regarding IT, cybersecurity, operational resilience, and other related topics. These include policies aimed at reducing the risk of cybersecurity

Box 4.3. Stress Testing Publications Released in 2021

More details on the 2021 stress test scenarios are available at https://www.federalreserve.gov/newsevents/pressreleases/files/bcreg20210212a1.pdf.

More details on the 2021 stress test model methodologies are available at https://www.federalreserve.gov/publications/files/2021-april-supervisory-stress-test-methodology.pdf.

More details on the 2021 stress test results are available at https://www.federalreserve.gov/publications/files/2021-dfast-results-20210624.pdf.

More details on the stress capital buffer requirements published in 2021 are available at https://www.federalreserve.gov/publications/large-bank-capital-requirements-20210805.htm.

threats and strengthening operational resiliency of the financial system. As part of its safety and soundness supervision, the Board examines and monitors supervised institutions.

During 2021, the Federal Reserve conducted examinations of IT activities (inclusive of cyber risk management activities) at financial institutions. Additionally, under the authority of the BSCA, the Federal Reserve, FDIC, and OCC (the federal banking agencies) examined and assigned Uniform Rating System for Information Technology ratings for technology service providers that provide services for specific regulated financial institutions.

The Federal Reserve, together with the other members of the Federal Financial Institutions Examination Council (FFIEC), publishes interagency statements and guidance to assist financial institution examiners with risk-management assessments at supervised entities.[3] In 2021, the Board published supervision and regulation (SR) letter 21-11 notifying supervised institutions that the FFIEC issued the “FFIEC Architecture, Infrastructure, and Operations Examination Handbook,” one of the booklets that compose the FFIEC Information Technology Examination Handbook.[4] The booklet provides guidance to examiners when assessing the risk profile and adequacy of an entity’s information technology architecture, infrastructure, and operations.

Fiduciary Activities

In 2021, Federal Reserve examiners conducted 68 fiduciary examinations of state member banks and non-depository trust companies.

Transfer Agents

During 2021, the Federal Reserve conducted transfer agent examinations at three state member banks and one BHC that were registered as transfer agents.

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[3] 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 National Credit Union Administration (NCUA), the OCC, the Consumer Financial Protection Bureau (CFPB), and the chair of the State Liaison Committee.

[4] See https://www.federalreserve.gov/supervisionreg/srletters/SR2111.htm.

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 Treasury regulations governing dealing and brokering in government securities. During 2021, the Federal Reserve conducted eight 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 2021, 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 and Cybersecurity

The Federal Reserve collaborated with other financial regulators, the U.S. Department of the Treasury, private industry, and international partners to promote effective safeguards against operational and cyber threats to the financial services sector and to bolster the sector's cyber resiliency. Throughout the year, Federal Reserve examiners conducted targeted cybersecurity assessments of the largest and most systemically important financial institutions, FMUs, and service providers. The Federal Reserve worked closely with the OCC and FDIC to coordinate examination procedures for the cybersecurity assessments of the largest, most systemically important banking organizations and of service providers. Federal Reserve examiners also continued to conduct tailored cybersecurity assessments at community and regional banking organizations.

In 2021, the Board and the other federal banking agencies finalized a rule that requires banking organizations to notify their regulator when a cybersecurity incident occurs and requires certain bank service providers to notify their client banks when such an incident occurs. Prompt notification of a cyber incident will help banking organizations and the agencies to react quickly to cyber threats.[5] The Board and other FFIEC agencies issued guidance providing financial institutions with

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[5] See press release at https://www.federalreserve.gov/newsevents/pressreleases/bcreg20211118a.htm.

examples of effective authentication and access risk management principles and practices for customers, employees, and third parties accessing digital banking services and information systems.[6]

The Board, along with the other federal banking agencies, also proposed guidance for public comment on third{party risk management which is intended to help banking organizations manage risks associated with third-party relationships, including relationships with financial technology-focused entities.[7]

The Federal Reserve actively participated in interagency groups, such as the Financial and Banking Information Infrastructure Committee (FBIIC), to share information and collaborate on cybersecurity and critical infrastructure issues affecting the financial sector. In coordination with FBIIC members, the Federal Reserve collaborated with government and industry stakeholders to promote the financial services sector's ability to respond rapidly to and recover from significant cybersecurity incidents, thereby reducing the potential for such incidents to threaten the stability of the financial system and the broader economy.

The Board leads or contributes to cybersecurity activities undertaken by groups, such as the Financial Stability Board (FSB), the Basel Committee on Banking Supervision (BCBS), the Committee on Payment and Market Infrastructures (CPMI) (and its joint efforts with the International Organization of Securities Commissions (IOSCO)), the International Association of Insurance Supervisors, and the Group of Seven (G-7). In 2021, the Federal Reserve was actively involved in international policy coordination to address cyber-related risks and efforts to bolster cyber resiliency as well as to foster international standards in the financial services sector. The Board led the BCBS's operational resilience group, which issued the Principles for Operational Resilience and the Principles for the Sound Management of Operational Risk.[8,9,10] The Federal Reserve also participated in activities to support the G-7 members' preparedness to coordinate communications in the event of a significant cross-border cyber incident.

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 and unsound practices or violations of any law or regulation. Formal enforcement actions include cease and desist

6 See SR 21-14, "Authentication and Access to Financial Institution Services and Systems," at https://www.federalreserve.gov/supervisionreg/srletters/sr2114.htm.

7 See press release at https://www.federalreserve.gov/newsevents/pressreleases/bcreg20210713a.htm.

8 The BCBS acts as the primary global standard setter for the prudential regulation of banks and provides a forum for cooperation on banking supervisory matters.

9 Basel Committee on Banking Supervision, *Principles for Operational Resilience* (Basel: Bank for International Settlements, March 2021), https://www.bis.org/bcbs/publ/d516.pdf.

10 Basel Committee on Banking Supervision, *Revisions to the Principles for the Sound Management of Operational Risk* (Basel: Bank for International Settlements, March 2021), https://www.bis.org/bcbs/publ/d515.pdf.

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.

In 2021, the Federal Reserve completed 52 formal enforcement actions. Civil money penalties totaling $396,700 were assessed. As directed by statute, all civil money penalties are remitted to either the Treasury or the Federal Emergency Management Agency. The Reserve Banks completed 44 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.

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.[11] The appeals process includes two levels of review. A panel of Reserve Bank staff who are not employed by the Reserve Bank 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 conduct the final review. The final review panel determines whether the decision of the initial review panel is reasonable. Additional information is available regarding the Federal Reserve Board's appeals process (https://www.federalreserve.gov/supervisionreg/srletters/SR2028.htm) and Ombudsman policy (https://www.federalreserve.gov/aboutthefed/ombpolicy.htm).

In 2021, the Board received one MSD appeal from a bank holding company that filed both an initial appeal and a request for final review. The Board also received one extension request to file an MSD appeal from a bank holding company, which was resolved informally, with assistance by the Ombudsman Office, prior to a request for an initial review being filed.

[11] 12 U.S.C. § 4806.

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.[12]

In 2021, two state member banks were required to submit data to the Federal Reserve. The information submitted by these two state member banks is available to the public upon request and is primarily used for disclosure to the bank's shareholders and public investors.

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 $617.4 million in 2021 for the 2020 supervision and regulation assessment.

Training and Technical Assistance

The Federal Reserve provides training and technical assistance to foreign supervisors and minority-owned depository institutions and 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 2021, the Federal Reserve released a tool to help community banks implement the CECL accounting standard. Known as the Scaled CECL Allowance for Losses Estimator or "SCALE," the

[12] 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."

spreadsheet-based tool draws on publicly available regulatory and industry data to aid community banks with assets of less than $1 billion in calculating their CECL allowances.

International Training and Technical Assistance

In 2021, the Federal Reserve continued to provide training and technical assistance on supervisory matters to foreign central banks and supervisory authorities. Due to the COVID event, training and technical assistance was exclusively offered virtually for the benefit of foreign supervisory authorities. Approximately 4,300 bank supervisors from foreign central banks and supervisory agencies attended these virtual training events during 2021.

Federal Reserve staff also took part in organizing two virtual training events offered in collaboration with the International Monetary Fund and the World Bank. Other training partners that collaborated with the Federal Reserve during 2021 to organize 25 regional virtual training events included the South East Asian Central Banks Research and Training Centre, the Association of Bank Supervisors of the Americas, the South African Reserve Bank, and the National Banking and Securities Commission of Mexico.

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 community organizations. As of year-end 2021, the Federal Reserve's MDI portfolio consisted of 14 state member banks.

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[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.

Throughout 2021, the System supported MDIs and conducted a number of outreach initiatives, webinars, and conferences specific to MDIs, including the following:

- *Emergency Capital Investment Program (ECIP):* On March 4, 2021, the Treasury launched the Emergency Capital Investment Program, which will provide up to $9 billion in capital directly to MDIs and community development financial institutions (CDFIs).
  - Staff at the banking agencies and the Treasury established a process for consultation and information sharing regarding applicants to the ECIP program.
- *Federal Reserve System Guidance issued:* In March 2021, the Board published new guidance, SR letter 21-6/CA 21-4, "Highlighting the Federal Reserve System's Partnership for Progress Program for Minority Depository Institutions and Women's Depository Institutions." The SR letter clarifies guidance as it relates to the Federal Reserve System's definition for MDIs, defines women-owned depository institutions, and highlights resources available to these institutions through the PFP.
- In April 2021, the federal banking agencies released a Regulatory Capital Guide for Minority Depository Institutions and Community Development Financial Institution Banking Organizations to provide MDIs and CDFIs with an overview of key considerations regarding the effect of capital investments on their regulatory capital requirements under the agencies' regulatory capital rule.
- On May 24, 2021, the Federal Reserve jointly hosted an "Ask the Regulator" session with the Treasury, FDIC, OCC, and the NCUA. Collectively, the agencies regulate all eligible ECIP banking organizations, and were all available to answer questions from potential participants about the program.
- The Board, OCC, and FDIC released an accompanying interim final rule to help implement the ECIP program by providing a regulatory capital treatment for instruments issued under the program. The Board is reviewing comments received on the interim final rule and considering policy options that would better enable MDIs and CDFIs to attract and deploy capital as intended under ECIP.
- Board staff also issued a set of frequently asked questions on the PFP website to clarify certain aspects of the interim capital rule.
- *Additional outreach:* The federal banking agencies hosted a webinar to explain the FDIC's Capital Estimator Tool for Mission-Driven Banks, which is on the Federal Reserve's PFP website, and to answer questions from the industry.
- Throughout 2021, PFP staff discussed formation of de novo banks with a number of different investor groups.
- In September 2021, the federal banking agencies hosted an interagency Minority Depository Institutions and Community Development Financial Institutions conference. This conference included remarks by Federal Reserve Chair Jerome Powell, Treasury Secretary Janet Yellen, and Acting Comptroller Michael Hsu.

International Engagement

As a member of the Financial Stability Board 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.

Basel Committee on Banking Supervision

During 2021, the Federal Reserve contributed to supervisory policy recommendations, reports, and papers issued for consultative purposes or finalized by the Basel Committee on Banking Supervision (BCBS) that are 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 2021, significant activity at the BCBS was focused on COVID-related issues, including monitoring related risks and vulnerabilities of the global banking system. In addition, the BCBS completed a strategic re-organization intended to allow the organization to become more forward-looking and to spend more time on emerging risks and vulnerabilities and less on developing new standards.

Some examples of final BCBS documents issued in 2021 include

- *Revisions to Market Risk Disclosure Requirements* (issued in November and available at https://www.bis.org/bcbs/publ/d529.htm)
- *G-SIB Assessment Methodology Review Process – Technical AmendmentFinalization* (issued in November and available at https://www.bis.org/bcbs/publ/d527.htm)
- *Progress Report on Adoption of the Basel Regulatory Framework* (issued in October and available at https://www.bis.org/bcbs/publ/d525.htm)
- *Early Lessons from the COVID-19 Pandemic on the Basel Reforms* (issued in July and available at https://www.bis.org/bcbs/publ/d521.htm)
- *The Procyclicality of Loan Loss Provisions: A Literature Review* (issued in May and available at https://www.bis.org/bcbs/publ/wp39.htm)
- *Climate-Related Financial Risks – Measurement Methodologies* (issued in April and available at https://www.bis.org/bcbs/publ/d518.htm)
- *Climate-Related Risk Drivers and Their Transmission Channels* (issued in April and available at https://www.bis.org/bcbs/publ/d517.htm)
- *Principles for Operational Resilience* (issued in March and available at https://www.bis.org/bcbs/publ/d516.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.

- *Revisions to the Principles for the Sound Management of Operational Risk* (issued in March and available at https://www.bis.org/bcbs/publ/d515.htm)

Some examples of consultative BCBS documents issued in 2021 include

- *Principles for the Effective Management and Supervision of Climate-Related Financial Risks* (issued in November and available at https://www.bis.org/bcbs/publ/d530.htm)
- *Review of Margining Practices* (issued in October and available at https://www.bis.org/bcbs/publ/d526.htm)
- *G-SIB Assessment Methodology Review Process* (issued in July and available at https://www.bis.org/bcbs/publ/d522.htm)
- *Prudential Treatment of Cryptoasset Exposures* (issued in June and available at https://www.bis.org/bcbs/publ/d519.htm)
- *Minimum Haircut Floors for Securities Financing Transactions* (issued in January and available at https://www.bis.org/bcbs/publ/d514.htm)

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

Financial Stability Board

In 2021, 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 practice. As with the Basel Committee, a significant amount of FSB work in 2021 related to monitoring vulnerabilities and sharing information on COVID event-related developments. The full range of the Federal Reserve's Financial Stability Board 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. Recent examples include

- *Global Monitoring Report on Non-Bank Financial Intermediation 2021* (issued in December and available at https://www.fsb.org/2021/12/global-monitoring-report-on-non-bank-financial-intermediation-2021/)
- *2021 Resolution Report: "Glass half-full or still half-empty?"* (issued in December and available at https://www.fsb.org/2021/12/2021-resolution-report-glass-half-full-or-still-half-empty/)
- *Enhancing the Resilience of Non-Bank Financial Intermediation: Progress Report* (issued in November and available at https://www.fsb.org/2021/11/enhancing-the-resilience-of-non-bank-financial-intermediation-progress-report/)

- *Lessons Learnt from the COVID-19 Pandemic from a Financial Stability Perspective: Final Report* (issued in October and available at https://www.fsb.org/2021/10/lessons-learnt-from-the-covid-19-pandemic-from-a-financial-stability-perspective-final-report/)
- *Cyber Incident Reporting: Existing Approaches and Next Steps for Broader Convergence* (issued in October and available at https://www.fsb.org/2021/10/cyber-incident-reporting-existing-approaches-and-next-steps-for-broader-convergence/)
- *G20 Roadmap for Enhancing Cross-Border Payments: First Consolidated Progress Report* (issued in October and available at https://www.fsb.org/2021/10/g20-roadmap-for-enhancing-cross-border-payments-first-consolidated-progress-report/)
- *Policy Proposals to Enhance Money Market Fund Resilience: Final Report* (issued in October and available at https://www.fsb.org/2021/10/policy-proposals-to-enhance-money-market-fund-resilience-final-report/)
- *Regulation, Supervision, and Oversight of "Global Stablecoin" Arrangements: Progress Report on the Implementation of the FSB High-Level Recommendations* (issued in October and available at https://www.fsb.org/2021/10/regulation-supervision-and-oversight-of-global-stablecoin-arrangements-progress-report-on-the-implementation-of-the-fsb-high-level-recommendations/)
- *FSB Roadmap for Addressing Climate-Related Financial Risks* (issued in July and available at https://www.fsb.org/2021/07/fsb-roadmap-for-addressing-climate-related-financial-risks/)
- *Report on Promoting Climate-Related Disclosures* (issued in July and available at https://www.fsb.org/2021/07/report-on-promoting-climate-related-disclosures/)
- *Progress Report to the G20 on LIBOR Transition Issues: Recent Developments, Supervisory Issues and Next Steps* (issued in July and available at https://www.fsb.org/2021/07/progress-report-to-the-g20-on-libor-transition-issues-recent-developments-supervisory-issues-and-next-steps/)
- *Outsourcing and Third-Party Risk – Overview of Responses to the Public Consultation* (issued in June and available at https://www.fsb.org/2021/06/outsourcing-and-third-party-risk-overview-of-responses-to-the-public-consultation/)
- *COVID-19 Support Measures: Extending, Amending and Ending* (issued in April and available at https://www.fsb.org/2021/04/covid-19-support-measures-extending-amending-and-ending/)
- *Evaluation of the Effects of Too-Big-to-Fail Reforms: Final Report* (issued in March and available at https://www.fsb.org/2021/03/evaluation-of-the-effects-of-too-big-to-fail-reforms-final-report/)

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

Committee on Payments and Market Infrastructures

In 2021, the Federal Reserve continued its active participation in the activities of the 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 completed fact-finding and analytical exercises 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 IOSCO. Over the course of 2021, CPMI-IOSCO advanced work on central bank digital currencies, 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.

Some examples of 2021 CPMI publications include

- *Central Bank Digital Currencies for Cross-Border Payments* (published by CPMI, BIS Innovation Hub, IMF, and the World Bank in July and available at https://www.bis.org/publ/othp38.pdf)
- *Application of the Principles for Financial Market Infrastructures to Stablecoin Arrangements—Consultative Report* (published by CPMI-IOSCO in October and available at https://www.bis.org/cpmi/publ/d198.pdf)
- *Review of Margining Practices—Consultative Report* (published by CPMI-IOSCO and BCBS in October and available at https://www.bis.org/bcbs/publ/d526.pdf)
- *A Discussion Paper on Client Clearing: Access and Portability* (published by CPMI-IOSCO in November and available at https://www.bis.org/cpmi/publ/d200.pdf)
- *Developments in Retail Fast Payments and Implications for RTGS Systems* (published in December and available at https://www.bis.org/cpmi/publ/d201.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 2021 in the development of international supervisory standards for the insurance industry. The Federal Reserve participates actively in standard-setting at the 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 2021, the IAIS made progress on several initiatives while continuing to work remotely. The IAIS finalized the high-level principles that will inform the criteria for assessing whether the Aggregation Method provides comparable outcomes to the Insurance Capital Standard. The IAIS previously consulted on this subject in 2020. The IAIS also implemented the Holistic Framework for Systemic Risk in the Insurance Sector. This implementation was planned for 2020 but was partially delayed by the pandemic. The IAIS additionally continued its work on climate risk, including by forming a new high-level steering group to oversee its work in this area.

The IAIS issued several final and consultative reports in 2021.

Papers and reports:

- *Redefining Insurance Supervision for the New Normal* (co-authored by the Financial Stability Institute of the Bank for International Settlements) (issued in April and available at https://www.iaisweb.org/uploads/2022/01/210409-IAIS-FSI-Note-on-redefining-insurance-supervision-for-the-new-normal.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)
- *Application Paper on Resolution Powers and Planning* (issued in June and available at https://www.iaisweb.org/uploads/2022/01/210623-Application-Paper-on-Resolution-Powers-and-Planning.pdf)
- *Application Paper on Supervision of Control Functions* (issued in June and available at https://www.iaisweb.org/uploads/2022/01/210623-Application-Paper-on-Supervision-of-Control-Functions1.pdf)
- *Application Paper on Macroprudential Supervision* (issued in August and available at https://www.iaisweb.org/uploads/2022/01/210830-Application-Paper-on-Macroprudential-Supervision.pdf)
- *Application Paper on Supervisory Colleges* (issued in November and available at https://www.iaisweb.org/uploads/2022/01/211111-Application-Paper-on-Supervisory-Colleges.pdf)
- *Application Paper on Combating Money Laundering and Terrorist Financing* (issued in November and available at https://www.iaisweb.org/uploads/2022/01/211111-Application-Paper-on-Combating-Money-Laundering-and-Terrorist-Financing.pdf)
- *Issues Paper on Insurer Culture* (issued in November and available at https://www.iaisweb.org/uploads/2022/01/211111-Issues-Paper-on-Insurer-Culture.pdf)
- *Global Insurance Market Report 2021* (issued in December and available at https://www.iaisweb.org/uploads/2022/01/211130-IAIS-GIMAR-2021.pdf)

Consultative papers:

- *Public Consultation on Draft Application Paper on Supervision of Control Functions* (issued in January and available at https://www.iaisweb.org/uploads/2022/01/210125-Draft-Application-Paper-on-Supervision-of-Control-Functions.pdf)
- *Public Consultation: Draft Application Paper on Macroprudential Supervision* (issued in March and available at https://www.iaisweb.org/uploads/2022/01/210308-Draft-Application-Paper-on-Macroprudential-Supervision.pdf)
- *Public Consultation: Revised Application Paper on Combating Money Laundering and Terrorist Financing* (issued in May and available at https://www.iaisweb.org/uploads/2022/01/210517-Revised-Application-Paper-on-Combating-Money-Laundering-and-Terrorist-Financing-clean.pdf)
- *Public Consultation on Draft Revised Application Paper on Supervisory Colleges* (issued in June and available at https://www.iaisweb.org/uploads/2022/01/210623-Draft-Revised-Application-Paper-on-Supervisory-Colleges.pdf)
- *Public Consultation on Draft Issues Paper on Insurer Culture* (issued in June and available at https://www.iaisweb.org/uploads/2022/01/210623-Draft-Issues-Paper-on-Insurer-Culture.pdf)
- *Development of Liquidity Metrics: Phase 2, Public Consultation Document* (issued in November and available at https://www.iaisweb.org/uploads/2022/01/211118-PCD-on-the-Development-of-Liquidity-Metrics-Phase-2-PUBLIC.pdf)

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.

Effective January 1, 2021, 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 also participates in the 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 participates in a number of international coordination initiatives related to sanctions, money laundering, and terrorism financing. 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 continued to participate in the work of the FSB that resulted in the publication of a roadmap to enhance cross-border payments in October 2020, and the G-20 follow-up progress report published in October 2021, confirming the next steps of the initiative.

The Federal Reserve also continues to participate in committees and subcommittees through the Bank for International Settlements. Specifically, the Federal Reserve actively participates in the AML Experts Group under the BCBS that focuses on AML and countering financing of terrorism (CFT) issues. In addition, the Federal Reserve participated in meetings and roundtables during the year to discuss BSA/AML issues with foreign delegations from Mexico, Australia, Central America, 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.

Role of Supervisory Guidance

On March 31, 2021, the Federal Reserve Board finalized a rule that codified, with amendments, an interagency statement issued in September 2018 confirming the role of supervisory guidance.[15] The 2018 statement explained that unlike a law or regulation, supervisory guidance does not have the force and effect of law. Accordingly, the statement also clarified that examiners will not criticize

[15] See final rule on the "Role of Supervisory Guidance," available at https://www.federalregister.gov/documents/2021/04/08/2021-07146/role-of-supervisory-guidance.

a financial institution for a "violation" of supervisory guidance as they would for a violation of a law or regulation.

The Federal Reserve has taken additional steps since issuance of the statement that further align with its objectives. For instance, staff has conducted additional examiner training, more closely reviewed draft supervisory communications to institutions, and coordinated with other banking agencies on guidance-related practices. The Federal Reserve remains committed to ensuring the proper role of guidance in the supervisory process.

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.[16] 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 2021, the following regulatory reporting forms had substantive revisions:

- **Consolidated Financial Statements for Holding Companies (FR Y-9C)**—The Board revised the report related to the temporary asset thresholds interim final rule and the total loss-absorbing capacity (TLAC) rulemaking[17] applicable to category I and category II banking organizations.[18] The Board also revised the report to collect contact information for the holding company's chief executive officer (CEO) and identify institutions with 100 or more full-time equivalent employees. These items will allow the Board's Office of Minority and Women Inclusion to invite Federal Reserve-regulated institutions with 100 or more full-time equivalent employees to participate in an annual, voluntary *Diversity and Inclusion Self-Assessment Questionnaire*.[19] This item also allows the agencies to communicate important and time-sensitive information to CEOs. An item

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

[17] 86 Fed. Reg. 708 (January 6, 2021), https://www.federalregister.gov/documents/2021/01/06/2020-27046/regulatory-capital-treatment-for-investments-in-certain-unsecured-debt-instruments-of-global.

[18] Category I standards apply to U.S. global systemically important bank holding companies (G-SIBs). Category II standards apply to U.S. banking organizations and U.S. IHCs with total consolidated assets of $700 billion or more or cross-jurisdictional activity of $75 billion or more that do not qualify as U.S. G-SIBs.

[19] This survey is consistent with the *Final Interagency Policy Statement Establishing Joint Standards for Assessing the Diversity Policies of Entities Regulated by the Agencies* (80 Fed. Reg. 33,016), which was issued as required by section 342 of the Dodd-Frank Act. The agencies include the OCC, Board, FDIC, NCUA, CFPB, and SEC.

was also added to identify early adopters of the standardized approach for counterparty credit risk (SA-CCR), and two glossary entries were revised to reflect recent changes to FDIC regulations (brokered deposits final rule).[20]

- **Capital Assessments and Stress Testing Information Collection Reports (FR Y-14)**—In 2020, the Board temporarily revised the FR Y-14 to capture data regarding emerging risks arising from the COVID event. In 2021, these temporary revisions expired and are no longer required to be reported to the Federal Reserve. In addition to the expiration of these temporary revisions, the Board also revised the reports to collect data related to the TLAC requirements, adding new regulatory capital items, and amending the instructions for existing regulatory capital items consistent with the FR Y-9C revisions noted above.
- **Statements of Foreign Subsidiaries of U.S. Banks (FR 2314/2314S); Reports of Foreign Banking Organizations (FR Y-7N/FR Y-7NS); Statements of U.S. Nonbank Subsidiaries of U.S. Holding Companies (FR Y-11/FR Y-11S)**—The Board revised the reports to conform with the temporary asset thresholds interim final rule, which allows for the use of the lesser of total assets as of December 31, 2019, or the most recent applicable measurement period to determine the applicability of asset-based filing thresholds through the end of 2021.
- **Complex Institution Liquidity Monitoring Report (FR 2052a)**—The Board revised the report to be consistent with the banking agencies' implementation of the net stable funding ratio rule, which became effective July 1, 2021. The revisions also improved the Board's insights into G-SIB interconnectedness, synthetic prime brokerage exposures, and other liquidity positions.

FFIEC Regulatory Reports

The Federal Reserve, along with the other member FFIEC agencies, requires financial institutions to submit various uniform regulatory reports.[21] 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 2021, revisions were made to certain FFIEC reporting forms to reflect actions taken by the member agencies to provide regulatory relief in response to the COVID event and to improve the agencies' monitoring of certain deposits and international exposures. The following FFIEC reports had substantive revisions:

- **Consolidated Reports of Condition and Income (FFIEC 031, 041, 051, collectively Call Reports)**—The FFIEC member agencies revised the measurement date used for certain asset thresholds that trigger additional reporting requirements. The changes, which impacted all three

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[20] 86 Fed. Reg. 6,742 (January 22, 2021), https://www.federalregister.gov/documents/2021/01/22/2020-28196/unsafe-and-unsound-banking-practices-brokered-deposits-and-interest-rate-restrictions.

[21] 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.

Table 4.4. Training for supervision and regulation, 2021

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	747	6	326	76
FFIEC	190	145	184	46
Rapid Response[2]	14,544	1,283	5	39

[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.

versions of the Call Report, provided temporary reporting relief to institutions with asset growth in 2020 associated with participation in various COVID event-related stimulus activities. The agencies focused on asset thresholds that could impact a significant number of smaller community institutions. Additionally, the member agencies revised the reporting of certain brokered deposits and sweep deposits to be consistent with a final rule issued by the FDIC related to brokered deposits and interest rate restrictions. The agencies made revisions to each version of the Call Report but tailored the granularity and frequency of the reporting based on the size and complexity of the respondents.

- **Report of Assets and Liabilities of U.S. Branches and Agencies of Foreign Banks (FFIEC 002)**—Consistent with changes made to the Call Reports for insured depository institutions, the FFIEC member agencies revised the report to monitor certain brokered deposits and sweep deposits at the insured branches and agencies of foreign banks.
- **Country Exposure Report for U.S. Branches and Agencies of Foreign Banks (FFIEC 019)**—The agencies removed the five-country limit on the reporting of gross claims on foreign nations to which the U.S. branch or agency has its largest total exposures of at least $20 million. For consistency, the reporting form was revised to include the list of countries and codes that are reflected on the FFIEC 009. The agencies also made clarifications to the definitions and treatment of certain items in the instructions to be consistent with the FFIEC 009.

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 2021 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 17-6/CA 17-1, "Overview of the Federal Reserve's Supervisory Education Programs." 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 2021, 95 examiners passed the proficiency examination (36 in CBO, 21 in consumer compliance, and 38 in LFI). In an effort to ensure minimal disruption to assistant examiners, virtual delivery of content continued throughout 2021.

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 2021, 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 2021 (see table 4.5).

Table 4.5. Federal Reserve or interagency rulemakings/statements/guidance (proposed and final), 2021

Date issued	Rulemaking/statement/guidance
1/19/2021	Federal Reserve Board finalizes a rule that updates the Board's capital planning requirements to be consistent with other Board rules that were recently modified. Press release: https://www.federalreserve.gov/newsevents/pressreleases/bcreg20210119a.htm
1/19/2021	SR 21-2, "Answers to Frequently Asked Questions Regarding Suspicious Activity Reporting and Other Anti-Money Laundering Considerations." Release: https://www.federalreserve.gov/supervisionreg/srletters/SR2102.htm
2/9/2021	Federal Reserve Board announces the second extension of a rule to bolster the effectiveness of the Small Business Administration's Paycheck Protection Program (PPP). Press release: https://www.federalreserve.gov/newsevents/pressreleases/bcreg20210209a.htm
2/12/2021	Federal Reserve Board releases hypothetical scenarios for its 2021 bank stress tests. Press release: https://www.federalreserve.gov/newsevents/pressreleases/bcreg20210212a.htm
2/18/2021	Federal Reserve Board announces final rule intended to reduce risk and increase efficiency in the financial system by applying netting protections to a broader range of financial institutions. Press release: https://www.federalreserve.gov/newsevents/pressreleases/bcreg20210218a.htm
2/22/2021	Federal and state financial regulatory agencies issue interagency statement on supervisory practices regarding financial institutions affected by Texas Winter Storms. Press release: https://www.federalreserve.gov/newsevents/pressreleases/bcreg20210222a.htm
2/26/2021	SR 21-3 / CA 21-1, "Supervisory Guidance on Board of Directors' Effectiveness." Release: https://www.federalreserve.gov/supervisionreg/srletters/SR2103.htm
2/26/2021	SR 21-4 / CA 21-2, "Inactive or Revised SR Letters Related to the Federal Reserve's Supervisory Expectations for a Firm's Boards of Directors." Release: https://www.federalreserve.gov/supervisionreg/srletters/SR2104.htm
3/5/2021	Federal Reserve Board clarifies guidance as it relates to definitions for minority depository institutions. Press release: https://www.federalreserve.gov/newsevents/pressreleases/bcreg20210305a.htm
3/9/2021	Federal bank regulators issue rule supporting the Treasury's investments in minority depository institutions and community development financial institutions. Joint press release: https://www.federalreserve.gov/newsevents/pressreleases/bcreg20210309a.htm
3/9/2021	SR 21-7, "Assessing Supervised Institutions' Plans to Transition Away from the Use of the LIBOR." Release: https://www.federalreserve.gov/supervisionreg/srletters/SR2107.htm
3/11/2021	Agencies release proposed new interagency questions and answers regarding private flood insurance. Joint press release: https://www.federalreserve.gov/newsevents/pressreleases/bcreg20210311a.htm
3/19/2021	Federal Reserve Board announces that the temporary change to its supplementary leverage ratio (SLR) for bank holding companies will expire as scheduled on March 31. Press release: https://www.federalreserve.gov/newsevents/pressreleases/bcreg20210319a.htm
3/19/2021	Temporary supplementary leverage ratio changes to expire as scheduled. Press release: https://www.federalreserve.gov/newsevents/pressreleases/bcreg20210319b.htm
3/25/2021	Federal Reserve announces temporary and additional restrictions on bank holding company dividends and share repurchases currently in place will end for most firms after June 30, based on results from upcoming stress test. Press release: https://www.federalreserve.gov/newsevents/pressreleases/bcreg20210325a.htm
3/25/2021	SR 21-6 / CA 21-4, "Highlighting the Federal Reserve System's Partnership for Progress Program for Minority Depository Institutions and Women's Depository Institutions." Release: https://www.federalreserve.gov/supervisionreg/srletters/SR2106.htm
3/29/2021	Agencies seek wide range of views on financial institutions' use of artificial intelligence. Joint press release: https://www.federalreserve.gov/newsevents/pressreleases/bcreg20210329a.htm
3/31/2021	SR 2-30, "Financial Institutions Subject to the LISCC Supervisory Program." Release: https://www.federalreserve.gov/supervisionreg/srletters/sr2030.htm
3/31/2021	Federal Reserve Board adopts final rule outlining and confirming the use of supervisory guidance for regulated institutions. Press release: https://www.federalreserve.gov/newsevents/pressreleases/bcreg20210331a.htm
3/31/2021	Federal Reserve Board publishes frequently asked questions (FAQs) comprising existing legal interpretations related to a number of the Board's longstanding regulations. Press release: https://www.federalreserve.gov/newsevents/pressreleases/bcreg20210331b.htm
4/8/2021	Federal Reserve Board invites public comment on a proposal to automate non-merger-related adjustments to member banks' subscriptions to Federal Reserve Bank capital stock. Press release: https://www.federalreserve.gov/newsevents/pressreleases/bcreg20210408a.htm
4/9/2021	Agencies issue statement and request for information on Bank Secrecy Act/anti-money-laundering compliance. Joint press release: https://www.federalreserve.gov/newsevents/pressreleases/bcreg20210409a.htm

(continued)

Table 4.5—*continued*

Date issued	Rulemaking/statement/guidance
4/22/2021	Agencies invite comment on proposed rule for income tax allocation agreements. Joint press release: https://www.federalreserve.gov/newsevents/pressreleases/bcreg20210422a.htm
5/5/2021	Federal Reserve Board invites public comment on proposed guidelines to evaluate requests for accounts and payment services at Federal Reserve Banks. Press release: https://www.federalreserve.gov/newsevents/pressreleases/bcreg20210505a.htm
5/7/2021	Federal Reserve Board invites public comment on proposed changes to Regulation II regarding network availability for card-not-present debit card transactions and publishes a biennial report containing summary information on debit card transactions in 2019. Press release: https://www.federalreserve.gov/newsevents/pressreleases/bcreg20210507a.htm
5/14/2021	Federal Reserve Board announces the third extension of a rule to bolster the effectiveness of the Small Business Administration's Paycheck Protection Program (PPP). Press release: https://www.federalreserve.gov/newsevents/pressreleases/bcreg20210514a.htm
5/17/2021	Agencies extend comment period on request for information on artificial intelligence. Joint press release: https://www.federalreserve.gov/newsevents/pressreleases/bcreg20210517a.htm
5/21/2021	Agencies issue host state loan-to-deposit ratios. Press release: https://www.federalreserve.gov/newsevents/pressreleases/bcreg20210521a.htm
6/2/2021	Federal Reserve Board issues final rule amending Regulation D regarding interest on reserve balances. Press release: https://www.federalreserve.gov/newsevents/pressreleases/bcreg20210602a.htm
6/7/2021	Federal Reserve Board announces that results from its bank stress tests will be released on Thursday, June 24, at 4:30 p.m. EDT. Press release: https://www.federalreserve.gov/newsevents/pressreleases/bcreg20210607a.htm
6/22/2021	Federal Reserve Board extends comment period on proposed changes to Regulation II regarding network availability for card-not-present debit card transactions until August 11, 2021. Press release: https://www.federalreserve.gov/newsevents/pressreleases/bcreg20210622a.htm
6/24/2021	Federal Reserve Board releases results of annual bank stress tests, which show that large banks continue to have strong capital levels and could continue lending to households and businesses during a severe recession. Press release: https://www.federalreserve.gov/newsevents/pressreleases/bcreg20210624a.htm
6/25/2021	Agencies release list of distressed or underserved nonmetropolitan middle-income geographies. Joint press release: https://www.federalreserve.gov/newsevents/pressreleases/bcreg20210625a.htm
6/30/2021	SR 21-10, "nteragency Statement on the Issuance of the Anti-Money Laundering/Countering the Financing of Terrorism National Priorities." Release: https://www.federalreserve.gov/supervisionreg/srletters/SR2110.htm
6/30/2021	SR 21-11, "FFIEC Architecture, Infrastructure, and Operations Examination Handbook." Release: https://www.federalreserve.gov/supervisionreg/srletters/SR2111.htm
7/1/2021	Federal Reserve announces it will soon release a new tool to help community banks implement Current Expected Credit Losses (CECL) accounting standard. Press release: https://www.federalreserve.gov/newsevents/pressreleases/bcreg20210701a.htm
7/13/2021	Agencies request comment on proposed risk management guidance for third-party relationships. Joint press release: https://www.federalreserve.gov/newsevents/pressreleases/bcreg20210713a.htm
7/19/2021	Agencies release public sections of resolution plans for eight large banks. Joint press release: https://www.federalreserve.gov/newsevents/pressreleases/bcreg20210719a.htm
7/20/2021	Interagency statement on Community Reinvestment Act joint agency action. Joint press release: https://www.federalreserve.gov/newsevents/pressreleases/bcreg20210720a.htm
7/20/2021	Federal Reserve Board statement on the Community Reinvestment Act. Press release: https://www.federalreserve.gov/newsevents/pressreleases/bcreg20210720b.htm
7/29/2021	SR 21-13 / CA 21-10, "Revised Special Post-Employment Restriction for Senior Examiners and Work Paper Reviews for Departing Examiners." Release: https://www.federalreserve.gov/supervisionreg/srletters/SR2113.htm
8/5/2021	Federal Reserve Board announces the individual capital requirements for all large banks, effective on October 1. Press release: https://www.federalreserve.gov/newsevents/pressreleases/bcreg20210805a.htm
8/11/2021	SR 21-14, "Authentication and Access to Financial Institution Services and Systems." Release: https://www.federalreserve.gov/supervisionreg/srletters/sr2114.htm
8/27/2021	Agencies issue guide to help community banks evaluate fintech relationships. Joint press release: https://www.federalreserve.gov/newsevents/pressreleases/bcreg20210827a.htm
8/30/2021	Federal and state financial regulatory agencies issue interagency statement on supervisory practices regarding financial institutions affected by Hurricane Ida. Joint press release: https://www.federalreserve.gov/newsevents/pressreleases/bcreg20210830a.htm

(continued)

Table 4.5—*continued*

Date issued	Rulemaking/statement/guidance
8/31/2021	Federal and state financial regulatory agencies issue interagency statement on supervisory practices regarding financial institutions affected by California Wildfires. Joint press release: https://www.federalreserve.gov/newsevents/pressreleases/bcreg20210831a.htm
9/7/2021	Agencies extend comment period on proposed risk management guidance for third-party relationships. Joint press release: https://www.federalreserve.gov/newsevents/pressreleases/bcreg20210907a.htm
9/9/2021	Federal Reserve published a paper describing landscape of partnerships between community banks and fintech companies. Press release: https://www.federalreserve.gov/newsevents/pressreleases/bcreg20210909a.htm
10/22/2021	SR 21-17 / CA 21-15, "Interagency Statement on Managing the LIBOR Transition." Release: https://www.federalreserve.gov/supervisionreg/srletters/sr2117.htm
10/27/2021	Federal Reserve Board invites public comment on a technical notice of review regarding primary dealers operating in Spain. Press release: https://www.federalreserve.gov/newsevents/pressreleases/bcreg20211027a.htm
11/18/2021	Agencies approve final rule requiring computer-security incident notification. Joint press release: https://www.federalreserve.gov/newsevents/pressreleases/bcreg20211118a.htm
11/19/2021	SR 21-12, "Answers to Frequently Asked Questions on the Transition Away from London Interbank Offered Rate (LIBOR)." Release: https://www.federalreserve.gov/supervisionreg/srletters/sr2112.htm
11/23/2021	Agencies issue joint statement on crypto-asset policy initiative and next steps. Joint press release: https://www.federalreserve.gov/newsevents/pressreleases/bcreg20211123a.htm
11/24/2021	Federal Reserve Board announces members of its Insurance Policy Advisory Committee. Press release: https://www.federalreserve.gov/newsevents/pressreleases/bcreg20211124a.htm
12/1/2021	Agencies announce threshold for smaller loan exemption from appraisal requirements for higher-priced mortgage loans. Joint press release: https://www.federalreserve.gov/newsevents/pressreleases/bcreg20211201a.htm
12/1/2021	Agencies announce dollar thresholds in Regulations Z and M for exempt consumer credit and lease transactions. Joint press release: https://www.federalreserve.gov/newsevents/pressreleases/bcreg20211201b.htm
12/1/2021	SR 21-18, "Release of New and Updated Sections of the Federal Financial Institutions Examination Council's Bank Secrecy Act/Anti-Money Laundering Examination Manual." Release: https://www.federalreserve.gov/supervisionreg/srletters/SR2118.htm
12/10/2021	Federal Reserve Board reiterates its supervisory expectations for large banks' risk management with investment funds. Press release: https://www.federalreserve.gov/newsevents/pressreleases/bcreg20211210a.htm
12/15/2021	Federal and state financial regulatory agencies issue interagency statement on supervisory practices regarding financial institutions affected by tornadoes. Joint press release: https://www.federalreserve.gov/newsevents/pressreleases/bcreg20211215a.htm
12/16/2021	Agencies release annual asset-size thresholds under Community Reinvestment Act regulations. Joint press release: https://www.federalreserve.gov/newsevents/pressreleases/bcreg20211216a.htm
12/17/2021	SR 21-20, "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/SR2120.htm
12/21/2021	SR 21-21, "Interagency Statement on the Community Bank Leverage Ratio Framework." Release: https://www.federalreserve.gov/supervisionreg/srletters/SR2121.htm

Banking Applications

The Federal Reserve reviews applications submitted by bank holding companies, state member banks, savings and loan holding companies, foreign banking organizations, and other entities for approval to undertake various transactions and to engage in new activities. In 2021, the Federal Reserve acted on 1,006 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

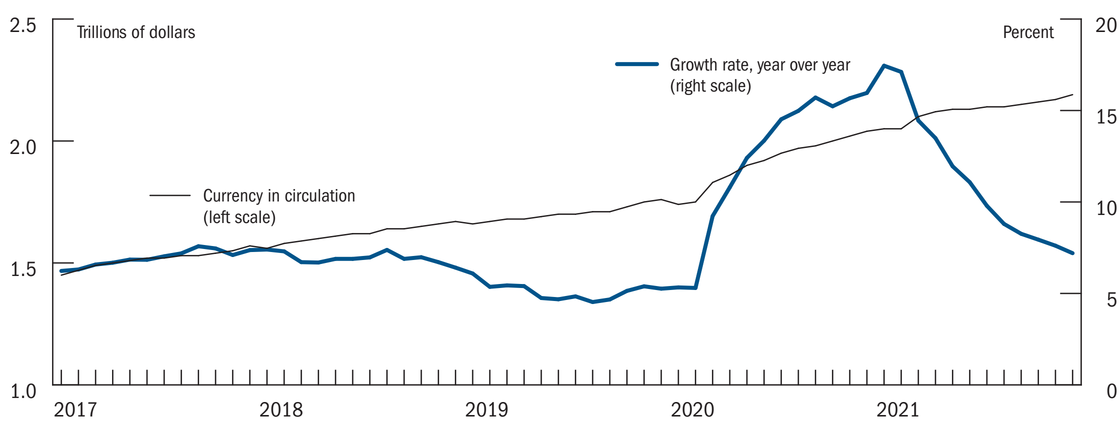
The Federal Reserve performs key functions to maintain the integrity of the U.S. payment and settlement system. These functions help keep cash, check, and electronic transactions moving reliably through the U.S. economy on behalf of households and businesses and the U.S. Treasury.

This section discusses the key payment system and Reserve Bank oversight activities undertaken by the Federal Reserve during 2021:

- providing payment services to depository and certain other institutions
- distributing the nation's currency and coin to depository institutions (also see figure 5.1)
- 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. Unprecedented demand for currency during the COVID-19 pandemic began to normalize by the end of 2021

During 2021, currency in circulation grew by $212.3 billion, or 11.1 percent, to $2.1 trillion. In contrast, in the three years preceding the COVID-19 pandemic, the average growth rate of currency in circulation was 6.3 percent. Since the January 2021 peak, the increase in currency in circulation growth has steadily declined toward more historically normal rates. For more information on currency in circulation, see "Currency and Coin."



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]

Historically, the Reserve Banks operated payment services as separate business lines, led by a specific Reserve Bank, and tracked cost recovery accordingly. In 2021, in response to the changing financial services landscape and the anticipated launch of the FedNow℠ Service in 2023, the Reserve Banks commenced a restructuring of payment services under one enterprise, led by a chief payments executive. This new governance and operating model will 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 2021, the Reserve Banks recovered 103.2 percent of the total costs of their commercial check-collection service, including the related private-sector adjustment factor (PSAF) (see box 5.1). The Reserve Banks' operating expenses and imputed costs totaled $105.4 million. Revenue from operations totaled $109.9 million, resulting in a net income of $4.5 million. Reserve Banks handled 3.7 billion checks in 2021, a decrease of 2.9 percent from 2020 (see table 5.1). The average daily value of checks collected by the Reserve Banks in 2021 was approximately $34.8 billion, an increase of 13 percent from the previous year. However, the Reserve Banks' check volumes are expected to decline because of substitution away from checks to other payment instruments.

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.

[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.

Table 5.1. Activity in Federal Reserve priced services, 2019–21
Thousands of items, except as noted

Service	2021	2020	2019	Percent change	
				2020–21	2019–20
Commercial check	3,657,312	3,766,523	4,389,011	−3	−14
Commercial ACH	17,895,155	16,548,795	15,583,792	8	6
Fedwire funds transfer	204,491	184,010	172,435	11	10
National settlement	586	551	558	6	−1
Fedwire securities	4,200	4,600	3,246	−9	42

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.

In 2021, the Reserve Banks recovered 98.0 percent of the total costs of their commercial ACH services, including the related PSAF. The Reserve Banks' operating expenses and imputed costs totaled $167.4 million. Revenue from operations totaled $165.7 million, resulting in a net loss of $1.7 million. The FedACH® Service did not achieve full cost recovery because of continued technology modernization and resiliency initiatives. The Reserve Banks continue to invest in platform capabilities and resiliency initiatives as part of a broader enhancement strategy. The Reserve Banks processed 17.9 billion commercial ACH transactions in 2021, an increase of 8.1 percent from 2020 (see table 5.1). The average daily value of FedACH transfers in 2021 was approximately $146.8 billion, an increase of 20.0 percent from the previous year.

FedNow Service

The FedNow Service is a new interbank 24x7x365 real-time gross settlement service being developed by the Federal Reserve to enable depository institutions across the United States to provide services that support the growing need for instant payments in this country. It is intended to be a flexible, neutral platform that will support a broad variety of instant payments and allow depository institutions and their service providers to offer value-added services to their customers, ultimately enhancing competition in the market for payment services. Development of the FedNow Service is a high priority of the Federal Reserve and will be available to eligible financial institutions in 2023.

Development of the service is progressing, with several key milestones reached within the past year: publication of message specifications; implementation of a pilot program with more than 100 participants to support the development, testing, and adoption of the service; and publication of a proposed set of comprehensive rules that will govern the service. In January 2022, the Federal Reserve announced the pricing approach and transaction value limit for the service. All of these milestones are important steps that allow depository institutions and service providers to make preparations to support the FedNow Service's instant payments.

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 2012 through 2021, the Reserve Banks recovered 103.0 percent of the total priced services costs, including the PSAF (see table A). In 2021, Reserve Banks recovered 99.7 percent of the total priced services costs, including the PSAF (see table A). The Reserve Banks' operating expenses and imputed costs totaled $452.8 million. Revenue from operations totaled $456.0 million, resulting in net income from priced services of $4.4 million. The Check Services and the Fedwire Securities Service achieved full cost recovery. The FedACH Service and Fedwire Funds® and National Settlement Services did not achieve full cost recovery because of technology modernization and resiliency initiatives.

Table A. Priced services cost recovery, 2012–21
Millions of dollars, except as noted

Year	Revenue from services[1]	Operating expenses and imputed costs[2]	Targeted return on equity[3]	Total costs	Cost recovery (percent)[4]
2012	449.8	423.0	8.9	432.0	104.1
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
2012–21	4,418.8	4,234.8	53.9	4,288.7	103.0

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 $4,416.7 million and other income and expense (net) of $2.0 million.

2 For the 10-year period, includes operating expenses of $4,121.6 million, imputed costs of $41.0 million, and imputed income taxes of $72.2 million.

3 From 2011 to 2012, the PSAF was adjusted to reflect the actual clearing balance levels maintained; previously, the PSAF had been calculated based on a projection of clearing balance levels.

4 Revenue from services divided by total costs. For the 10-year period, cost recovery is 94.3 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 $686.5 million reduction in equity related to the priced services' benefit plans through 2021. Including this reduction in equity, which represents a decline in economic value, results in cost recovery of 94.3 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.

Fedwire Funds and National Settlement Services

In 2021, the Reserve Banks recovered 98.6 percent of their costs of the Fedwire Funds and National Settlement Service, including the related PSAF. The Fedwire Securities Service did not achieve full cost recovery because of the timing of a strategic transition to more accurately allocate the costs of providing the service. Revenue from operations totaled $152.7 million, resulting in a net loss of $0.7 million. The Reserve Banks' operating expenses and imputed costs totaled $153.4 million in 2021.

Fedwire Funds Service

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

From 2020 to 2021, the number of Fedwire funds transfers originated by depository institutions increased 11.1 percent, to approximately 204 million (see table 5.1). The average daily value of Fedwire funds transfers in 2021 was $4.0 trillion, an increase of 18.9 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 2021, the service processed settlement files for 11 local and national private-sector arrangements. The Reserve Banks processed 8,675 files that contained about 586,000 settlement entries (see table 5.1). Settlement file activity in 2021 increased 3.8 percent from 2020, and settlement entries increased 6.3 percent. The total value of settlement processed by NSS increased 6.7 percent, to $25.0 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 2021, the Reserve Banks recovered 103.8 percent of the costs of their Fedwire Securities Service, including the related PSAF. Revenue from operations totaled approximately $27.7 million, resulting in a net income of $1.3 million. The Reserve Banks' operating expenses and imputed costs totaled $26.4 million in 2021. In 2021, the number of non-Treasury securities transfers processed via the service decreased approximately 8.7 percent from 2020, to approximately 4.2 million (see table 5.1). The average daily value of Fedwire Securities priced-service transfers in 2021 was approximately $72.4 billion, a decrease of 16.5 percent from the previous year.[3] The average daily value of all Fedwire Securities transfers in 2021 was more than $1.2 trillion, a decrease of approximately 13.7 percent from the previous year.

The Reserve Banks, as fiscal agent for the U.S. Treasury, perform the transfer and settlement of Treasury securities. In 2021, the number of all Treasury security transfers was approximately 16.0 million, a decrease of 6.1 percent from 2020.

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 2021, the total cash value of principal and interest payments in 2021 was $29.3 trillion (a decrease of 3.7 percent from 2020).

The Fedwire Securities Service is the central securities depository for securities issued over the Fedwire Securities Service. At the end of 2021, there was approximately $102 trillion (par value) of Fedwire securities held in securities accounts maintained by the Reserve Banks as part of the service, a 5.5 percent increase from 2020. At the end of 2021, there were 1.4 million unique securities outstanding on the service, an increase of 2.8 percent from 2020.

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. In 2021, the Reserve Banks advanced the safety and security of FedLine Solutions by

[3] These values do not include reversals.

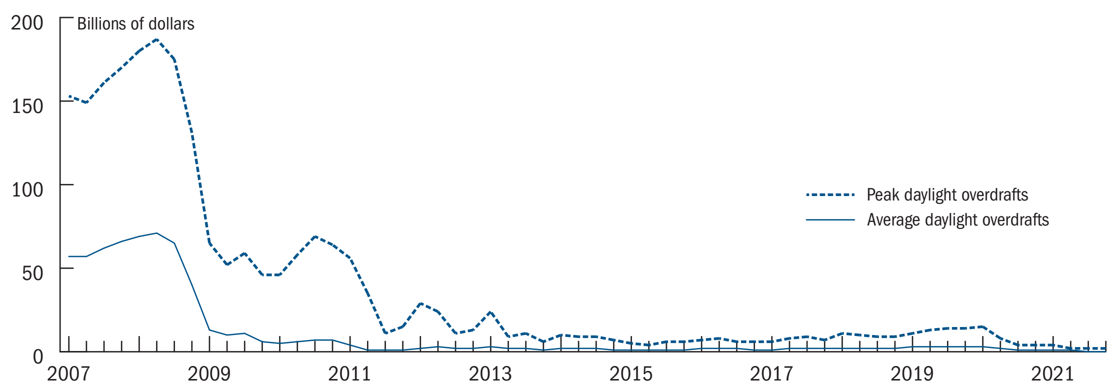
making progress on key infrastructure upgrades and network modernization, as well as through proactive monitoring of an evolving threat environment and by strengthening endpoint security policies.

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.

Institutions currently hold historically high levels of overnight balances at the Federal Reserve Banks, while daylight overdrafts remained historically low, as shown in figure 5.2.[5]

Figure 5.2. Aggregate daylight overdrafts 2007–21



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

Fees collected for daylight overdrafts are also at historically low levels.[6] Fees as well as the use of intraday credit are expected to remain relatively low given the historically high levels of overnight

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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.

6 In light of disruptions from the coronavirus pandemic, the Board took temporary actions to increase the availability of intraday credit extended by Reserve Banks. Specifically, the Board temporarily (1) suspended net debit caps for primary credit institutions, (2) authorized a streamlined procedure for secondary credit institutions to request collateralized intraday credit under the max cap program, and (3) suspended two collections of information that are used to calculate net debit caps.

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.

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.

Federal Reserve transaction volumes in 2021 continued to reflect pandemic trends but moderated from the unprecedented surge in demand experienced at the onset of the pandemic in early 2020. All denominations, except for $1s and $2s, experienced a decline in transaction levels from 2020. In 2021, the Reserve Banks distributed 30.7 billion Federal Reserve notes into circulation, an 8.5 percent decrease from 2020, and received 27.9 billion Federal Reserve notes from circulation, a 0.7 percent decrease from 2020. The larger decrease in payments than receipts resulted in a net payments decrease of 2.7 billion notes, or a 48.9 percent decrease from 2020, primarily attributable to lower net payments of $20 notes. While less than 2020 numbers, net payments in 2021 increased about 1.2 billion notes from typical pre-pandemic net payment levels. The value of Federal Reserve notes issued and outstanding at year-end 2021 totaled $2,187.5 billion, a 7.2 percent increase from 2020. 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.[7] In 2021, Reserve Banks distributed 46.3 billion coins into circulation, a 7.3 percent decrease from 2020, and received 30.4 billion coins from circulation, a 10.7 percent decrease from 2020. The year-over-year decrease in coin activity is a result of the COVID-19 pandemic, which significantly disrupted the supply chain and normal circulation patterns for U.S. coins.

Banknote Development

During 2021, 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 (ACD) Steering Committee, composed of the Treasury, the U.S. Secret Service, and Federal Reserve System staff, advised on currency design changes to the Secretary of the Treasury, who has sole statutory authority to approve the final currency design.

[7] 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.

Over the past year, Federal Reserve Board staff, in collaboration with other U.S. currency program partners (the Bureau of Engraving and Printing, Federal Reserve Financial Services, and the U.S. Secret Service) worked together in the execution of technology and banknote 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 development efforts, the Federal Reserve Board, like many other central banks, led an adversarial analysis program to increase the counterfeit resilience of U.S. currency. The Board also conducted research activities in 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 ACD Steering Committee in 2021, Federal Reserve Board staff continued to serve on the Central Bank Counterfeit Deterrence Group and the Four Nations, and chaired the United States Cash Machine Group. The Central Bank Counterfeit Deterrence Group is a group of central banks that collaborates to prevent digital counterfeiting. The Four Nations is a group of central banks, including the Board, that works on common projects and uses experience in banknote design 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.

New Currency Production Facility

In 2021, Board staff continued to work with the Bureau of Engraving & 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 currency program to produce new currency designs that are more technically complex. The new facility will be built in Beltsville, Maryland, on a site owned by the Department of Agriculture. The new facility will produce half of the notes that the Board orders each year as part of the yearly currency order. Over the past year, the Board and the Bureau of Engraving and Printing established governance procedures and developed a shared vision for the management of this project.

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 2021, the CEP launched the teller toolkit and cashier toolkit to support the program's domestic stakeholder outreach. These resources were created to help tellers and cashiers quickly spot counterfeit currency, protect businesses from loss of revenue, and emphasize the importance of following company counterfeit-reporting policies. The CEP also launched the Android and iOS versions 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 the denomination of the bill they are authenticating 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 Federal Reserve Bank cash offices that reached program administrators and cash operators. Internationally, the CEP hosted trainings for cash operations staff and managers from the central banks globally.

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.[8] The Reserve Banks, in their role as fiscal agents, provide services such as payment services, financing and securities services, and financial accounting and reporting services, as well as maintain the Treasury's operating cash account.

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 $768.5 million, an increase of 36.1 million, or 4.9 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 96.8 percent of expenses, and costs for other entities accounted for the remaining 3.2 percent.

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 col-

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

Table 5.2. Expenses of the Federal Reserve Banks for fiscal agency and depository services, 2019–21
Thousands of dollars

Agency and service	2021[1]	2020	2019
Department of the Treasury			
Payment services	353,030	293,994	292,078
Financing and Treasury securities services	184,535	179,314	191,614
Financial accounting and reporting services	76,970	69,315	65,105
Technology infrastructure services	129,339	150,461	139,703
Total, Treasury	743,874	693,084	688,500
Other entities	24,595	39,321	40,471
Total reimbursable expenses	**768,469**	**732,406**	**728,971**

Note: Service costs include reimbursable pension costs, where applicable. Previous versions of the *Annual Report* provided a separate line item for pension expenses.
[1] In 2021, the Federal Reserve implemented a new cost accounting framework.

lect 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 $353.0 million in 2021, an increase of $59.0 million, or 20.1 percent, which is primarily attributable to expanded efforts to modernize business processes and applications for federal payments and electronic tax collection. The programs that contributed most to Reserve Bank expenses in 2021 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 80 military bases and installations in 19 countries (including the United States) and on board more than 135 ships. In 2021, the Reserve Banks continued to provide operations and customer support, replaced legacy equipment, and piloted new functionality and capabilities for stored-value cards.

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 2021, Pay.gov processed 84.7 million online payments valued at $217.1 billion. In addition, the Reserve Banks operated applications that facilitated the movement of $28.3 billion in commercial deposits to the Treasury's account at the Federal Reserve. The Reserve Banks also processed and settled 178.9 million electronic payment transactions valued at $782.4 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.[9] In fiscal year 2021, Do Not Pay assisted more than 20 agencies in identifying or stopping more than 20,000 improper payments totaling more than $42.2 million.

Financing and Securities Services

The Reserve Banks work closely with the Treasury in support of the financing needed to operate the federal government, which includes forecasting, scheduling, auctioning, issuing, settling, maintaining, and redeeming marketable Treasury securities (for example, bills, notes, and bonds). The Reserve Banks also support the Treasury's efforts to encourage savings by issuing, maintaining, and redeeming U.S. savings bonds, as well as providing operations and fulfillment services. The Reserve Banks provide customer service and operate the automated systems that support marketable Treasury securities and savings bonds.

In 2021, the Treasury, supported by the Reserve Banks, conducted 445 auctions that resulted in the Treasury's awarding $17.8 trillion in wholesale Treasury marketable securities to investors.[10] The Reserve Banks also supported the issuance and servicing of $158.0 billion in savings bonds and marketable securities.

Reserve Bank expenses for financing and securities services were $184.5 million in 2021, an increase of $5.2 million, or 2.9 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

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[9] Do Not Pay is authorized and governed by the Payment Integrity Information Act of 2019.

[10] In 2021, the Treasury, supported by the Reserve Banks, conducted additional cash management bill auctions to support the Treasury's fiscal policy response to the COVID-19 pandemic and the federal debt limit.

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*.[11]

Reserve Bank expenses for financial accounting and reporting services were $77.0 million in 2021, an increase of $7.7 million, or 11.0 percent, primarily attributable to higher indirect costs. The programs that contributed most to Reserve Bank expenses in 2021 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 2021, the Reserve Banks continued to provide operations support and implemented application enhancements. 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 2021, the Reserve Banks continued to work with the Treasury to coordinate outreach and implement system enhancements, which will prepare agencies to meet the federal government mandate to adopt G-Invoicing.[12]

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.

In 2021, the Reserve Banks continued to build out and migrate applications to a cloud platform in alignment with the Treasury's cloud computing strategy.[13] 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 $129.3 million in 2021, a decrease of $21.1 million, or 14.0 percent, primarily attributable to lower-than-budgeted infrastructure investments and project delays.

[11] 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/.

[12] Federal agencies must implement G-Invoicing for all buy/sell intragovernmental transactions by October 2022. Additional information can be found at https://fiscal.treasury.gov/g-invoice/.

[13] 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/.

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 $24.6 million in 2021, a decrease of $14.7 million, or 37.5 percent, which is driven by the Reserve Banks' implementation of a new cost accounting framework.

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 system improvements.

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, 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.

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

Box 5.2. 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 implications and risks 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 would require careful thought and analysis.

The Federal Reserve is engaged in research and experimentation focused on better understanding technical issues related to CBDC. The Technology Lab at the Federal Reserve Board is looking at digital currencies broadly with a focus on understanding different technologies and design implications. Project Hamilton, a collaboration between the Federal Reserve Bank of Boston and the Massachusetts Institute of Technology's Digital Currency Initiative, is a multiyear research project to research retail CBDC designs and gain a hands-on understanding of a CBDC's technical challenges and opportunities. The Federal Reserve Bank of New York has established an Innovation Center to facilitate collaboration with the Bank for International Settlements on financial innovation. These ongoing research and experimentation initiatives are focused on how a CBDC might act as a complement to existing payment mechanisms—such as cash and bank deposits—not as a replacement for them.

The Federal Reserve is also actively engaged with a wide variety of stakeholders, such as those from government, academia, and the private sector, to gather perspectives and expertise about potential CBDC uses, the range of design options, and other considerations. Additionally, the Federal Reserve is in contact with international counterparts and is closely following developments in other jurisdictions. The Federal Reserve collaborates with six other central banks and the Bank for International Settlements. The group produced a report on foundational principles for CBDCs continued this work with further analysis of policy options and practical implementation issues.[1] The group issued reports in 2021 on system design and interoperability, user needs and adoption, and financial stability implications.[2] The Federal Reserve also collaborated with the Group of Seven to produce a set of public policy principles for retail CBDCs.[3] It also works with the Group of 20 on ways to improve cross-border payments, which includes studying how CBDCs might be used for cross-border payments.[4]

To help stimulate broad conversation, the Federal Reserve Board worked on a discussion paper, issued in 2022, 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. The paper represents the beginning of what will be a thoughtful and deliberative process.[5]

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1 Bank for International Settlements, Central Bank Digital Currencies: Foundational Principles and Core Features (Basel: BIS, October 2020), https://www.bis.org/publ/othp33.pdf.

2 Bank for International Settlements, "Central Banks and the BIS Explore What a Retail CBDC Might Look Like," press release, September 2021, https://www.bis.org/press/p210930.htm.

3 G7, *Public Policy Principles for Retail Central Bank Digital Currencies (CBDCs)*, October 2021, https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/1025235/G7_Public_Policy_Principles_for_Retail_CBDC_FINAL.pdf.

4 Financial Stability Board, *G20 Roadmap for Enhancing Cross-border Payments: First consolidated progress report* (Washington: FSB, October 2021), https://www.fsb.org/wp-content/uploads/P131021-1.pdf.

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

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).

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. The Reserve Banks also recently implemented a new FedACH-processing platform to improve the efficiency and reliability of FedACH operations. In 2021, 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 and by strengthening endpoint security policies.

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 towards 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.

The Reserve Banks remained vigilant about their 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 implemented several cybersecurity initiatives that enhanced identity and access management capabilities; enhanced the ability to respond to evolving cybersecurity threats with agility, decisiveness, and speed by streamlining decisionmaking during a cybersecurity incident; and continued to improve continuous monitoring capabilities of critical assets. Additionally, as ransomware continues to pose a critical operational and reputational risk to the Federal Reserve, the Reserve Banks began a Systemwide effort in 2021 to strengthen the Federal Reserve's processes, infrastructure, and controls to prevent ransomware attacks and to respond to and mitigate successful attacks.

Several Reserve Banks took action in 2021 to maintain and renovate their facilities. Major multiyear 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. 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.[14] In addition, the Reserve Banks are subject to oversight by the Board of Governors, which performs its own reviews (see box 5.3).

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 2021 combined and individual financial statements of the Reserve Banks and the financial statements of the five limited liability companies (LLCs) that are associated with the Board of Governors' actions to address the coronavirus pandemic, of which four 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.[15]

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

[15] In addition, KPMG audited the Office of Employee Benefits of the Federal Reserve System (OEB), 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 OEB, and the Consumer Financial Protection Bureau.

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 2021, 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

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.

In 2021, KPMG also conducted audits of internal controls over financial reporting for each of the Reserve Banks. Fees for KPMG services totaled $9.8 million, of which approximately $2.3 million was for the audits of the LLCs.[16] 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 2021, 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, and the System's Office of Employee Benefits (OEB). 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 Pro-

[16] 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.

fessional 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.

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 2021, income was $123.1 billion, compared with $102.0 billion in 2020; expenses totaled $15.2 billion, compared with $13.6 billion in 2020; and net income before remittances to the Treasury totaled $107.9 billion in 2020, compared with $88.6 billion in 2020.

Table 5.3 summarizes the income, expenses, and distributions of net earnings of the Reserve Banks for 2021 and 2020. Appendix G of this report, "Statistical Tables," provides more detailed information on the Reserve Banks, including the consolidated LLCs.[17] Additionally, appendix G summarizes the Reserve Banks' 2021 budget performance and 2022 budgets, budgeting processes, and trends in expenses and employment.

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

[17] 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 2021, table G.10 shows a condensed statement for each Reserve Bank for the years 1914 through 2021, 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, 2021 and 2020
Millions of dollars

Item	2021	2020
Current income	123,059	102,036
Loan interest income	229	358
SOMA interest income	122,326	101,184
Other current income[1]	504	494
Net expenses	11,008	13,455
Operating expenses	5,092	4,926
Reimbursements	–787	–732
System pension service cost	954	662
Interest paid on depository institutions deposits and others	5,333	7,883
Interest expense on securities sold under agreements to repurchase	414	711
Other expenses	2	4
Current net income	112,051	88,581
Net additions to (deductions from) current net income	–1,538	2,197
Treasury securities gains, net	0	2
Federal agency and government-sponsored enterprise mortgage-backed securities (losses) gains, net	–35	664
Foreign currency translation gains (losses), net	–1,856	1,542
Other additions or deductions	353	–12
Assessments by the Board of Governors[2]	2,633	2,295
For Board expenditures	970	947
For currency costs	1,035	831
For Consumer Financial Protection Bureau costs[3]	628	517
Net income before providing for remittances to the Treasury	107,880	88,482
Consolidated variable interest entities: Income (loss), net	975	–1,785
Consolidated variable interest entities: Non-controlling interest (income) loss, net	–927	1,854
Reserve Bank and consolidated variable interest entities net income before providing for remittances to the Treasury	107,928	88,552
Earnings remittances to the Treasury	109,025	86,890
Net income after providing for remittances to the Treasury	–1,097	1,662
Other comprehensive gain (loss)	–1,640	–1,276
Comprehensive income	543	386
Total distribution of net income	109,568	87,276
Dividends on capital stock	583	386
Transfer from surplus and change in accumulated other comprehensive income	–40	0
Earnings remittances to the Treasury	109,025	86,890

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.

mortgage-backed securities, investments denominated in foreign currencies, and commitments to buy or sell related securities.[18]

Table 5.4 summarizes the average daily assets (liabilities), current income (expenses), and average interest rate of the SOMA holdings for 2021 and 2020.

Lending

In 2021, 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 $754 million and 0.25 percent.
- Primary Dealer Credit Facility (PDCF) was $289 million and 0.25 percent.
- Money Market Mutual Fund Liquidity Facility (MMLF) was $1,394 million and 1.25 percent.
- Paycheck Protection Program Liquidity Facility (PPPLF) was $63,379 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.

[18] 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 and loans of the Federal Reserve Banks, 2021 and 2020

Millions of dollars, except as noted

Item	Average daily assets (+)/liabilities (–)			Current income (+)/expense (–)			Average interest rate (percent)	
	2021	2020	Year-over-year change	2021	2020	Year-over-year change	2021	2020
System Open Market Account (SOMA) holdings								
Securities purchased under agreements to resell	162	98,003	–97,841	1	723	–722	0.35	0.74
U.S. Treasury securities, net[1]	5,456,776	4,061,849	1,394,927	92,610	67,539	25,071	1.70	1.66
Federal agency and government-sponsored enterprise (GSE) mortgage-backed securities, net[2]	2,417,179	1,831,907	585,272	29,619	32,338	–2,719	1.23	1.77
Government-sponsored enterprise debt securities, net[1]	2,622	2,646	–24	134	135	–1	5.11	5.1
Foreign currency denominated investments[3]	21,294	21,127	167	–45	–40	–5	–0.21	–0.19
Central bank liquidity swaps[4]	2,178	134,529	–132,351	7	489	–482	0.33	0.36
Other SOMA assets[5]	61	74	–13	*	*	–*	0.66	0.04
Total SOMA assets	7,900,272	6,150,135	1,750,137	122,326	101,184	21,142	1.55	1.65
Securities sold under agreements to repurchase: primary dealers and expanded counterparties	–717,540	–8,749	–708,791	–337	–14	–323	0.05	0.16
Securities sold under agreements to repurchase: foreign official and international accounts	–251,068	–226,215	–24,853	–77	–697	620	0.03	0.31
Total securities sold under agreements to repurchase	–968,608	234,964	–733,643	–414	–711	297	0.04	0.30
Other SOMA liabilities[6]	–4,368	–4,188	–180	n/a	n/a	n/a	n/a	n/a
Total SOMA liabilities	–972,976	–239,152	–733,824	–414	–711	297	0.04	0.30
Total SOMA holdings	**6,927,296**	**5,910,983**	**1,016,313**	**121,912**	**100,473**	**21,439**	**1.76**	**1.70**

[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, 2021 and 2020
Millions of dollars

Item	2021		2020	
Short-term assets (note 1)				
Imputed investments	626.0		569.2	
Receivables	44.4		40.8	
Inventory	0.5		0.7	
Prepaid expenses	25.2		12.4	
Items in process of collection	76.4		131.7	
Total short-term assets		772.5		754.8
Long-term assets (note 2)				
Premises	93.2		116.7	
Furniture and equipment	44.0		32.8	
Leases, leasehold improvements, and long-term prepayments	69.5		74.7	
Deferred tax asset	179.7		178.1	
Total long-term assets		386.4		402.3
Total assets		1,158.9		1,157.1
Short-term liabilities (note 3)				
Deferred-availability items	659.4		701.0	
Short-term debt	0.0		30.5	
Short-term payables	37.8		23.4	
Total short-term liabilities		697.2		754.8
Long-term liabilities (note 3)				
Long-term debt	0.0		6.3	
Accrued benefit costs	403.7		338.2	
Total long-term liabilities		403.7		344.5
Total liabilities		1,101.0		1,099.2
Equity (including accumulated other comprehensive loss of $686.5 million and $630.7 million at December 31, 2021 and 2020, respectively)		57.9		57.9
Total liabilities and equity (note 3)		1,158.9		1,157.1

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, 2021 and 2020
Millions of dollars

Item	2021		2020	
Revenue from services provided to depository institutions (note 4)		456.0		446.2
Operating expenses (note 5)		448.3		426.9
Income from operations		7.7		19.3
Imputed costs (note 6)				
Interest on debt	0.4		0.3	
Interest on float	-0.1		-0.8	
Sales taxes	3.4	3.7	3.9	3.4
Income from operations after imputed costs		4.0		15.9
Other income and expenses (note 7)				
Investment income	0.0		0.7	
Income before income taxes		4.0		16.6
Imputed income taxes (note 6)		0.8		3.7
Net income		3.2		13.0
Memo: Targeted return on equity (note 6)		4.4		5.9

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 5.7. Pro forma income statement for Federal Reserve priced services, by service, 2021
Millions of dollars

Item	Total	Commercial check collection	Commercial ACH	Fedwire funds	Fedwire securities
Revenue from services (note 4)	456.0	109.9	165.7	152.7	27.7
Operating expenses (note 5)[1]	448.3	103.3	166.6	152.3	26.0
Income from operations	7.7	6.6	−0.9	0.4	1.6
Imputed costs (note 6)	3.7	1.0	1.3	1.3	0.1
Income from operations after imputed costs	4.0	5.7	−2.2	−0.8	1.4
Other income and expenses, net (note 7)	0.0	0.0	0.0	0.0	0.0
Income before income taxes	4.0	5.7	−2.2	−0.8	1.4
Imputed income taxes (note 6)	0.8	1.1	−0.5	−0.2	0.3
Net income	3.2	4.5	−1.7	−0.7	1.3
Memo: Targeted return on equity (note 6)	4.4	1.1	1.7	1.5	0.2
Cost recovery (percent) (note 8)	99.8	103.2	98.0	98.6	103.8

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 20.8 percent for 2021 and 22.1 percent for 2020.

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 2021 equity is imputed at 5.0 percent of total assets and 10.5 percent of risk-weighted assets, and 2020 equity is imputed at 5.0 percent of total assets and 10.3 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 2021, an additional balance of $43 million was imputed to meet sufficient assets and equity requirements. In 2020, there were sufficient assets and equity such that additional imputed balances were not required.

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 liability, which is a component of accrued benefit costs, of $27.3 million in 2021 and $44.5 million in 2020. The change in the funded status of the pension and other benefit plans resulted in a corresponding decrease in accumulated other comprehensive loss of $55.9 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 $6.6 million in 2021 and $6.7 million in 2020. 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 $65.3 million in 2021 and $37.1 million in 2020. Operating expenses also include the nonqualified service costs of $4.3 million in 2021 and $2.1 million in 2020. 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 20.8 percent for 2021 and 22.1 percent for 2020.

(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 2021 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.[19]

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, less shipping expenses, for each service to the total expenses, less the total shipping 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 2021 and 2020, in millions of dollars:[20]

Daily average recovery of actual float	2021	2020
Total float	−185.2	−248.1
Float not related to priced services[1]	−31.9	−5.4
Float subject to recovery through per-item fees	−153.3	−242.7

[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

[19] 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.

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

through charging institutions directly. Float subject to recovery is valued at the federal funds rate. Certain ACH funding requirements and check products generate credit float; this float has been subtracted from the cost base subject to recovery in 2021 and 2020.

(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. In 2021, the Federal Reserve implemented a new cost accounting framework in parallel with a new Enterprise Resource Planning application as part of a broader modernization effort.[21]

[21] The Federal Reserve approved the new Cost Accounting Strategic Planning and Reporting (CASPR), replacing the Planning Control System cost accounting framework that was established in 1977 and refreshed in 2001. CASPR establishes cost accounting policies and provides uniform reporting structure for accumulating and reporting cost data for priced, reimbursable, assessed, and other central bank services for all Federal Reserve Banks. The framework provides the rules that serve to ensure the consistent application at all Reserve Banks of cost accounting methodologies, data comparability, and practical measures of the cost of providing Federal Reserve services.

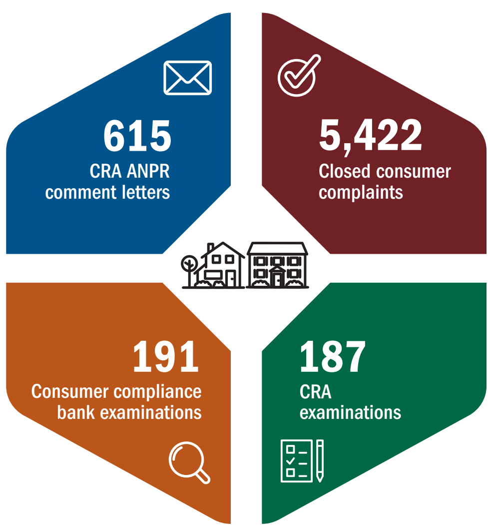
6 | Consumer and Community Affairs

The Federal Reserve is committed to promoting fair and transparent financial service markets, protecting consumers' rights, and ensuring that its policies and research take into account consumer and community perspectives. The Board supports 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 2021:

- formulating and carrying out supervision and examination policy to ensure financial institutions comply with consumer protection laws and regulations and meet requirements of community reinvestment 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
- identifying issues and advancing what works in community development by engaging, convening, and informing key stakeholders

Figure 6.1. The Federal Reserve promoted an inclusive, consumer-focused economic recovery in 2021

The Federal Reserve supported economic stability through broad outreach and regulatory transparency while remaining responsive to financial challenges created by the pandemic. See box 6.1 for information on Federal Reserve initiatives to ensure a broad-based recovery.



Note: *CRA ANPR* refers to the Community Reinvestment Act Advance Notice of Proposed Rulemaking, the first step in CRA modernization efforts.

In order to better understand the pandemic's ongoing impact on consumer financial circumstances, the Federal Reserve conducted the yearly Survey on Household Economics and Decisionmaking (SHED) in October 2021. 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).

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 2021, the Federal Reserve, in conjunction with the federal and

[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 financial institution regulatory agencies, updated regulations to reflect evolving COVID-19 conditions.

Acknowledging the pandemic's ongoing economic effects, the Board's regulatory efforts prioritized convenient access to funds for both consumers and financial services providers. In April 2020, the Board published an interim final rule lifting the six-per-month limit on savings deposit transfers and withdrawals. In March 2021, the Board joined the other Federal Financial Institutions Examination Council agencies in responding to this regulatory update by announcing the suspension of Regulation D examination procedures.[2] This change permits financial institutions to remove the six-per-month limit on savings deposit transfers and to allow customers to make an unlimited number of withdrawals from savings deposits. Financial institutions that decide to suspend enforcement of the six-transfer limit will no longer need to monitor savings deposit account transaction activity to track the number of convenient transfers, notify customers who exceed the maximum number of transfers, or close savings deposit accounts that repeatedly exceed that maximum. Since the disclosure requirements for deposit accounts under the Truth in Savings Act remain in effect, suspension of the Regulation D examination procedures should reduce financial institutions' compliance burden without any reduction in consumer financial protection.

The Federal Reserve continued to monitor financial institutions for regulatory compliance during the year. The number of examinations the Reserve Banks completed increased from 311 in 2020 to 391 in 2021. The breakdown of consumer compliance examinations completed by Reserve Banks in 2021 included 191 consumer compliance examinations of state member banks, 187 CRA examinations of state member banks, 13 examinations of foreign banking organizations, and no examinations of Edge Act corporations or agreement corporations.[3]

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,

state member banks and other institutions supervised by the Federal Reserve (including number and assets of), see section 4, "Supervision and Regulation."

2 See https://www.federalreserve.gov/supervisionreg/caletters/caltr2106.htm.

3 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.

- considers banks' CRA performance in context with other supervisory information when analyzing applications for mergers and acquisitions, and
- disseminates information about community development practices to bankers and the public through community development offices at the Reserve Banks.[4]

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 2021 reporting period, the Reserve Banks completed 187 CRA examinations of state member banks. Of those banks examined, 27 were rated "Outstanding," 158 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 expand CRA guidance in response to pandemic-related activities that would receive consideration in examinations. Staff also continued to work to reform CRA regulations, analyze public comments to the Board's advanced notice of proposed rulemaking, and collaborate with interagency partners. See box 6.1 for more information on the Division of Consumer and Community Affairs' 2021 CRA reform efforts and policy guidance.[5]

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.

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

5 During 2021, Governor Lael Brainard released a FedCommunities blog about the necessity of CRA reform and participated in a podcast conversation about CRA modernization with Federal Reserve Bank of Atlanta President Raphael Bostic. See https://fedcommunities.org/necessity-cra-reform/ and https://www.atlantafed.org/news/conferences-and-events/conferences/2021/01/08/modernizing-the-community-reinvestment-act/podcast.aspx.

Box 6.1. Meeting Consumer Needs and Promoting Financial Inclusion for Economic Recovery

The economy expanded during 2021, as many businesses and schools began to reopen, and some COVID-19 restrictions were lifted. The Federal Reserve recognized, however, that the pandemic's effects were not evenly felt by all groups and developed activities to understand the disparities. The Board's Division of Consumer and Community Affairs (DCCA) conducted analysis of banking practices, reviewed Community Reinvestment Act (CRA) guidance, and examined financial inclusion to inform policy actions. Throughout the year, DCCA initiatives, research, and events kept stakeholders apprised of implications of the pandemic's impact and changing policies.

Supervision, Regulation, and Reform

Community banks played a crucial role in supporting small businesses, families, and individuals during the pandemic, underscoring the importance of providing online products and services. To assist community banks in their efforts to serve customers' financial needs through multiple delivery channels, the Board issued a variety of publications and guidance on fintech. The first 2021 issue of *Consumer Compliance Outlook* featured the article, "Technological Innovation Is Essential to the Future of Community Banking in America," by Governor Michelle Bowman.[1] This article emphasized the significance of community bank/fintech firm partnerships to keep pace with the evolving financial services landscape. To ensure community banks understand supervisory expectations related to third-party risk management, the Board issued a fintech due diligence guide with other federal agencies.[2] In partnership with the Division of Supervision and Regulation, DCCA released the paper, "Community Bank Access to Innovation through Partnerships," an additional resource for banks navigating fintech collaboration.[3]

During the pandemic, banks were encouraged to be accommodating and innovative in responding to consumer financial needs.[4] DCCA assessed innovative ways that banks can meet the credit needs of low- and moderate-income communities through CRA guidance. In March, the agencies expanded a set of CRA frequently asked questions (FAQs) clarifying that certain pandemic-focused loan application processing and virtual community development efforts would qualify for consideration in CRA exams.[5] Additional interagency guidance was issued in November to resume supervision and enforcement of mortgage servicing rules, which had been temporarily lifted in April 2020.[6]

Research, Policy, and Practice

In 2021, markers of a rebounding economy masked how COVID-19 left those with the fewest financial resources behind.[7] DCCA research analyzed how individuals, families, and communities fared. Released in May, the *Economic Well-Being of U.S. Households in 2020* report examined responses to the eighth annual Survey of Household Economics and Decisionmaking (SHED).[8] The survey showed that the pandemic's economic effects were uneven. Slightly less than two-thirds (64 percent) of Black and Hispanic adults said that they were doing at least okay financially, compared with 80 percent of White adults and 84 percent of Asian adults. Community Advisory Council members stated that women were negatively affected by public health policy in response to the pandemic, such as school and

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[1] See https://consumercomplianceoutlook.org/2021/first-issue/technological-innovation-is-essential-to-the-future-of-community-banking-in-america/.

[2] See https://www.federalreserve.gov/publications/files/conducting-due-diligence-on-financial-technology-firms-202108.pdf.

[3] See https://www.federalreserve.gov/publications/files/community-bank-access-to-innovation-through-partnerships-202109.pdf.

[4] See https://www.federalreserve.gov/supervisionreg/caletters/2021.htm for supervisory guidance for consumer compliance issued in 2021.

[5] See https://www.federalreserve.gov/supervisionreg/caletters/caltr2105.htm.

[6] See https://www.federalreserve.gov/supervisionreg/caletters/caltr2116.htm.

[7] Chair Jerome Powell mentioned the SHED findings in his remarks at the 2021 Just Economy Conference sponsored by the National Community Reinvestment Coalition. See https://www.federalreserve.gov/newsevents/speech/powell20210503a.htm.

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

Box 6.1—*continued*

daycare closings. The Federal Reserve engaged stakeholders to better understand inequities in the pandemic's financial fallout.

To explore these issues further, DCCA sponsored events, seminars, and publications that underscored the importance of supporting a diverse and inclusive recovery, particularly with respect to gender differences in economic opportunity. In addition, the Board worked with Reserve Bank partners to redesign the in-person biennial community development research conference into an online seminar series featuring Board and Reserve Bank seminars under the theme, Toward an Inclusive Recovery. This series featured sessions on women's economic participation, the financial fragility of low-income workers, and housing security.[9] In November, DCCA hosted the Gender and the Economy Conference, which analyzed how gender can influence outcomes over the course of an individual's lifetime, with particular emphasis on COVID-related effects.[10] Published in conjunction with the conference, the November 2021 issue of Consumer & Community Context provided insight into the pandemic's economic impact on women, from childcare disruptions and the financial fragility of single mothers to the experiences of women-owned businesses.[11]

Information on the Federal Reserve's robust body of work related to economic disparities can be found on the Board's website at https://www.federalreserve.gov/newsevents/economic-disparities-work.htm.

[9] See https://fedcommunities.org/community-development-research-seminar-series/2021-toward-inclusive-recovery/.
[10] See https://www.federalreserve.gov/conferences/conference-on-gender-and-the-economy.htm.
[11] See https://www.federalreserve.gov/publications/consumer-community-context.htm.

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.

The Board is committed to ensuring that the institutions it supervises comply fully with the prohibition on unfair or deceptive acts or practices as outlined in the FTC Act. An act or practice may be found to be unfair if it causes 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 2021, the Board referred one fair lending matter to DOJ. The matter involved discrimination based on a pattern or practice of redlining in mortgage lending based on race or national origin.

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 or UDAP violations and ensure that the institution takes appropriate corrective action. For example, the Federal Reserve uses supervisory tools other than public enforcement actions (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.

The Board terminated two public enforcement actions for UDAP violations in 2021. In January 2021, the Board terminated a consent order, initially issued in 2017, against a bank for deceptive practices related to the bank's balance transfer credit cards. The order required the bank to pay restitution of approximately $5 million to more than 20,000 affected consumers and to take other corrective actions.[6] In June 2021, the Board terminated a consent order, initially issued in 2019, against a bank for unfair and deceptive practices related to the bank's offering of certain add-on products. The order required the bank to pay restitution of approximately $8.8 million to more than 60,000 customers and to take other corrective actions.[7]

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 is able to 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.

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[6] For more information, see termination announcement at https://www.federalreserve.gov/newsevents/pressreleases/enforcement20210105a.htm.

[7] For more information, see termination announcement at https://www.federalreserve.gov/newsevents/pressreleases/enforcement20210610a.htm.

The Division of Consumer and Community Affairs' outreach and technical assistance included the annual Board-sponsored interagency webinar on fair lending supervision, which attracted more than 5,500 registrants in 2021.[8]

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 2021, the Federal Reserve issued six formal consent orders and assessed approximately $171,000 in civil money penalties against state member banks to address violations of the flood regulation.[9] 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.[10]

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[8] To view the webinar, see "Consumer Compliance Outlook Live" at https://consumercomplianceoutlook.org/outlook-live/archives/.

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

[10] 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.[11] The Federal Reserve also publishes semiannual reports that provide pertinent information on applications and notices filed with the Federal Reserve.[12] 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.

Coordination with Other Agencies

Coordination with the Consumer Financial Protection Bureau

During 2021, staff continued to coordinate on supervisory matters with the CFPB in accordance with the Interagency Memorandum of Understanding on Supervision Coordination with the CFPB. The agreement is intended to establish arrangements for coordination and cooperation among the CFPB and the Office of the Comptroller of the Currency (OCC), the Federal Deposit Insurance Corporation (FDIC), the National Credit Union Association (NCUA), and the Board of Governors. The agreement strives to minimize unnecessary regulatory burden and to avoid unnecessary duplication of effort and conflicting supervisory directives amongst the prudential regulators. 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, in order to clearly communicate supervisory expectations. The Federal Reserve also works with the other member agencies of the Federal Financial Institutions Examination Council to develop consistent examination principles, standards, procedures, and report formats.[13] In addition, the Federal Reserve participates in the Joint Task Force on Fair Lending, composed of all of the prudential regulators, the CFPB, the DOJ, and the Department of Housing and Urban Development (HUD). See box 6.1 for more information on how the Board worked with the FDIC and the OCC to issue a guide for community banking organizations conducting due diligence on financial technology companies, as well as proposed guidance designed to assist banking organizations in identifying and addressing the risks associated with third-party relationships.

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

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

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

Updating Examination Procedures

In 2021, Board staff worked with other federal banking agencies to develop and revise examination procedures to provide clarity about supervisor expectations regarding consumer compliance. In March, the Board revised Regulation Z examination procedures to reflect amendments published by the CFPB amending and clarifying the TILA-Real Estate Settlement Procedures Act integrated disclosure rule, as well as amendments to TILA in the Economic Growth, Regulatory Relief, and Consumer Protection Act (EGRRCPA) that did not require a rulemaking to be effective. Regulation Z ensures that creditors use a uniform system of disclosures about credit terminology and rates. In October, the Board again revised Regulation Z examination procedures to reflect changes to Regulation Z's qualified mortgage provisions published by the CFPB in 2020 and 2021.[14]

In December, the Board issued revised examination procedures for use in connection with the Home Mortgage Disclosure Act (HMDA) data collected since January 1, 2021, pursuant to the CFPB's rules, amendments to Regulation C, and amendments to HMDA in EGRRCPA.[15] This update clarified the types of transactions that are subject to HMDA and EGRRCPA, as well as the data that institutions are required to collect, record, and report.

Outreach

The Federal Reserve maintains a comprehensive public outreach program to promote consumer protection, financial inclusion, and community reinvestment. During 2021, the Board continued to enhance its program, delivering timely, relevant compliance information to the banking industry, experienced examiners, and other regulatory personnel.

In 2021, three issues of *Consumer Compliance Outlook* were released, discussing regulatory and supervisory topics of interest to compliance professionals.[16] 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.[17] In addition, the Federal Reserve offered one Outlook Live seminar, "2021 Fair Lending Interagency Webinar."[18]

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

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[14] See https://www.federalreserve.gov/supervisionreg/caletters/caltr2114.htm.
[15] See https://www.federalreserve.gov/supervisionreg/caletters/caltr2117.htm.
[16] For more information and to access the publications, see https://consumercomplianceoutlook.org/.
[17] For more information and to download the seminars, see https://consumercomplianceoutlook.org/outlook-live/.
[18] See https://www.consumercomplianceoutlook.org/2021/fourth-issue/2021-interagency-fair-lending-webinar/.

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.[19] 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 2021, 21 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. Special instructional and curriculum solutions were deployed throughout 2020 and 2021 to ensure uninterrupted learning for supervisory staff at all levels during the pandemic.

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 2021, 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. Two Rapid Response sessions with an exclusive consumer compliance focus were designed, developed, and presented to System staff during 2021. An additional 37 Rapid Response sessions were offered that addressed a broader range of supervisory issues, including consumer compliance topics, to keep supervision function staff informed of the Federal Reserve's actions during the pandemic.

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

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 2021, FRCH processed 37,011 cases. Of these cases, 19,658 were inquiries and the remainder (17,353) were complaints, with most cases received directly from consumers and involving financial institutions other than state member banks supervised by the Federal Reserve. Approximately 9 percent of cases were referred to the Federal Reserve from other federal and state agencies.

Consumers contacted FRCH by a variety of different channels: 51 percent of the FRCH consumer contacts occurred by telephone, and 47 percent (17,438) of complaint and inquiry submissions were made electronically (via email, online submissions, and fax). The online form page received 41,788 visits during the year.

Consumer Complaints

Complaints against Federal Reserve regulated entities totaled 5,814 in 2021. Of the total, 93 percent (5,422) were closed, and 7 percent were still under investigation.

Approximately 6 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 2021, 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. Twenty-six complaints alleging credit discrimination on the basis of prohibited borrower traits or rights were received in 2021. Seventeen discrimination complaints were related to the race, color, national origin, or ethnicity of the applicant or borrower. Five 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 2021, there were three with a violation; however, they were not related to illegal credit discrimination.

In 44 percent of investigated complaints against Federal Reserve regulated entities, evidence reviewed did not reveal an error or violation. Of the remaining 56 percent of investigated complaints, 12 percent were identified errors that were corrected by the bank; 5 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, 2021

Product/subject of complaint	Percent
Deposit/bank products	**44**
Fraud/forgery	31
Deposit error resolution	21
Funds availability not as expected	17
Restricted/blocked accounts	14
Other	17
Prepaid accounts	**30**
Restricted/blocked accounts	26
Error resolution	21
Inability to withdraw funds on the card	20
Fraud/forgery	14
Other	19
Credit card accounts	**19**
Inaccurate credit reporting	30
Fraud/forgery	18
Identity theft concerns	18
Request to validate the debt owed	9
Other	25
Other products	**5**
Real estate loans	**2**

Note: Other products include commercial products, non-deposit 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 2021, 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.

Interagency Questions and Answers for Flood Insurance Proposal

In March, five federal regulatory agencies, including the Board, issued for public comment new Interagency Questions and Answers Regarding Private Flood Insurance.[20] These proposed Interagency Questions and Answers supplement new and revised Interagency Questions and Answers the agencies proposed in July 2020.[21]

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

[21] For more information, see *Federal Register* notice 86 Fed. Reg. 14,696 (March 18, 2021) at https://www.govinfo.gov/content/pkg/FR-2021-03-18/pdf/2021-05314.pdf and the press release at https://www.federalreserve.gov/newsevents/pressreleases/bcreg20210311a.htm.

The proposal is intended to help lenders comply with the agencies' 2019 rule to implement the private flood insurance provisions of the Biggert-Waters Flood Insurance Reform Act of 2012.

The proposal included new questions and answers in the following three areas:

1. Mandatory acceptance
2. Discretionary acceptance
3. Private flood insurance general compliance

The agencies plan to consolidate these proposed private flood insurance questions and answers with the questions and answers proposed in July 2020 to issue one set of Interagency Questions and Answers Regarding Flood Insurance.

Updating Annual Indexes for Consumer Regulations

Annual Indexing of Exempt Consumer Credit and Lease Transactions

In December 2021, 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 2022 for determining exempt consumer credit and lease transactions will increase from $58,300 in 2021 to $61,000 for 2022. 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.[22]

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

In December 2021, 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 $27,200 for 2021 to $28,500 for 2022.[23] 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.

[22] For more information, see https://www.federalreserve.gov/newsevents/pressreleases/bcreg20211201b.htm.
[23] For more information, see https://www.federalreserve.gov/newsevents/pressreleases/bcreg20211201a.htm.

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

In December 2021, 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.[24]

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 thresholds 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 4.73 percent increase in the CPI-W for the period ending in November 2021, 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 $1.384 billion.
- *Intermediate small bank* means a small bank with assets of at least $346 million as of December 31 of both of the prior two calendar years and less than $1.384 billion as of December 31 of either of the prior two calendar years.

These asset-size threshold adjustments took effect on January 1, 2022.

Consumer Research and Analysis of Emerging Issues and Policy

Throughout 2021, 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 2021, 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

[24] For more information, see https://www.federalreserve.gov/newsevents/pressreleases/bcreg20211216a.htm.

gain insights into consumers' financial and communities' economic development experiences. This work during 2021 was essential to informing the Board's policymaking in responding to the COVID-19 emergency, particularly as these efforts were aimed at ameliorating conditions for economically vulnerable households and areas.

Household Economics and Decisionmaking

In order to better understand consumer decisionmaking in the rapidly evolving financial services sector, 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 eighth annual SHED were published in the report *Economic Well-Being of U.S. Households in 2020,* released in May 2021.[25] The survey results reflected the self-reported financial conditions of 11,648 respondents at the end of 2020. This report also included discussion of the trajectory of financial well-being over the course of the pandemic, as measured through the full annual survey in November 2020 as well as smaller surveys conducted in April and July 2020.

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

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

The 2020 survey reflected how the pandemic caused substantial disruptions to many people's finances as well as how public policy responses appear to have muted many of the effects. Even though nearly one-fourth of adults said they were worse off financially than they had been in 2019, most still said that, despite these setbacks, they were managing at least okay financially near the end of the year and, across several measures, appeared to have financial resources similar to those observed a year earlier. At the time of the survey, 75 percent of adults reported either doing okay or living comfortably financially, which was unchanged from 2019 after having fluctuated through the year. Similarly, 64 percent of adults said they would pay a hypothetical $400 expense using cash or a cash equivalent, nearly unchanged from 2019.

Although most people were faring reasonably well financially, the results also highlighted areas of persistent challenges and economic disparities across financial measures, including the substantial disparities in overall well-being by race, ethnicity, and education. See box 6.1 for how SHED measured the pandemic's impact by race and gender.

The survey also explored long-run financial circumstances, including returns to education, housing satisfaction, and retirement savings, as well as several new questions to explore topics that had not been asked in previous years of the survey. These new topics included experiences with K-12 education and education disruptions, housing changes due to COVID-19, telework experiences, layoffs, and challenges faced when conducting banking transactions. Additionally, the survey continued to monitor emerging issues that may be important to the economy in the future, such as experiences working in the gig economy.

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.[26]

[26] For papers by the Federal Reserve Board, see Robert M. Adams, Kenneth P. Brevoort, and John C. Driscoll, "Is Lending Distance Really Changing? Distance Dynamics and Loan Composition in Small Business Lending," Finance and Economics Discussion Series 2021-011 (Washington: Board of Governors of the Federal Reserve System, December 2020), https://www.federalreserve.gov/econres/feds/is-lending-distance-really-changing-distance-dynamics-and-loan-composition-in-small-business-lending.htm; Nathan Blascak and Anna Tranfaglia, "Decomposing Gender Differences in Bankcard Credit Limits," Finance and Economics Discussion Series 2021-072 (Washington: Board of Governors of the Federal Reserve System, November 2021), https://www.federalreserve.gov/econres/feds/decomposing-gender-differences-in-bankcard-credit-limits.htm; J. Michael Collins, Jeff Larrimore, and Carly Urban, "Does Access to Bank Accounts as a Minor Improve Financial Capability? Evidence from Minor Bank Account Laws," Finance and Economics Discussion Series 2021-075 (Washington: Board of Governors of the Federal Reserve System, October 2021), https://www.federalreserve.gov/econres/feds/does-access-to-bank-accounts-as-a-minor-improve-financial-capability.htm; Katherine Lim and Mike Zabek, "Women's Labor Force Exits during COVID-19: Differences by Motherhood, Race, and Ethnicity," Finance and Economics Discussion Series 2021-067 (Washington: Board of Governors of the Federal Reserve System, September 23, 2021), https://www.federalreserve.gov/econres/feds/womens-labor-force-exits-during-covid-19-differences-by-motherhood-race-and-ethnicity.htm; and Jeff Larrimore, Jacob Mortenson, and David Splinter, "Earnings Shocks and Stabilization During COVID-19," Finance and Economics Discussion Series 2021-052 (Washington: Board of Governors of the Federal Reserve System, June 29, 2021), https://www.federalreserve.gov/econres/feds/earnings-shocks-and-stabilization-during-covid-19.htm.

Community Development Research Seminar Series

In 2021, the Board and the Reserve Banks reimagined the biennial Federal Reserve System Community Development Research Conference as a new seminar series. This long-running forum 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. See box 6.1 to learn more about how the series' three sessions considered the 2021 theme, Toward an Inclusive Recovery.

The seminars featured keynote remarks by Governor Michelle Bowman, Federal Reserve Bank of Kansas City President Esther George, and Federal Reserve Bank of Atlanta President Raphael Bostic.

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 2021, 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,
- tracking housing trends, and
- monitoring credit for small businesses.

The staff hosted a series of virtual events about innovative approaches to financing postsecondary education and conducted outreach with Black and Hispanic small business associations. The Division of Consumer and Community Affairs also convened a consumer risk-focused workshop series for staff from the Board, Reserve Banks, and other federal agencies in July and August. The discussion considered pandemic resiliency as well as credit products and policy decisions that help consumers and small businesses recover from financial shocks. In addition to analyzing the small-dollar mortgage market, staff also participated in the Interagency Task Force on Property Appraisal and Valuation Equity, an initiative to address inequity in home appraisals. In addition, Division of Consumer and Community Affairs 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 to learn more about the Board's Gender and the Economy Conference, a virtual symposium that explored how gender can influence economic and financial outcomes over an individual's lifetime, with particular emphasis on COVID-related impacts.

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 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 in their respective Districts. Board staff provide oversight for alignment with Board objectives and coordination of System priorities.

Perspectives from Main Street

Through its work, 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 eight national partners on the 2021 Perspectives from Main Street survey. Through a convenience sampling method that relied on contact databases, the online survey compared conditions in August 2021 with the peak of pandemic economic distress. Announced in October 2021, the findings provided insight into how COVID-19 was affecting low- to moderate-income people and entities that serve them on the dates the survey was administered.[27] Of respondents, 86 percent indicated COVID-19 was a significant disruption to the economic conditions of the communities they served, while 44 percent reported that significant disruptions had continued.

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). In collaboration with the Division of Supervision and Regulation, the Division of Consumer and Community Affairs issued SR/CA letter SR 21-6/CA 21-4, "Highlighting the Federal Reserve System's Partnership for Progress Program for Minority Depository Institutions and Women's Depository Institutions" in March 2021. This letter offered policy guidance about how the Partnership for Progress program defines and supports diverse banks and financial services providers, including eligibility, technical assistance, training, and outreach.[28] The Board also released

[27] See https://fedcommunities.org/data/main-street-covid19-survey-2021/.

[28] See https://www.federalreserve.gov/supervisionreg/srletters/SR2106.htm. For more information about the Federal Reserve System's Partnership for Progress, see https://fedpartnership.gov/.

Promoting Minority Depository Institutions in July 2021, 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 credit access for women and minority business owners. The Council also shared perspectives on local credit and economic conditions in housing, labor markets, and small businesses.[30]

[29] See https://www.federalreserve.gov/publications/2021-july-promoting-minority-depository-institutions.htm.
[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 2021.

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 2021. 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

Richard H. Clarida
Vice Chair

Randal K. Quarles
Vice Chair for Supervision

Michelle W. Bowman

Lael Brainard

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

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

Jon Faust[1]
Senior Special Adviser
to the Chair

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

1 Jon Faust served as an adviser to Chair Powell in 2021.
2 Joshua H. Gallin served as an adviser to Chair Powell in 2021.

Legal Division

Mark E. Van Der Weide
General Counsel

Richard M. Ashton
Deputy General Counsel

Charles Gray
Deputy General Counsel

Laurie S. Schaffer
Deputy General Counsel
(through February 1, 2021)

Stephanie Martin
Senior Associate
General Counsel
(through October 1, 2021)

Jean C. Anderson
Associate General Counsel

Benjamin W. McDonough
Associate General Counsel
(through June 6, 2021)

Reena Sahni
Associate General Counsel
(as of December 6, 2021)

Alvin 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

Jason A. Gonzalez
Assistant General Counsel

Asad Kudiya[3]
Assistant General Counsel
(as of November 7, 2021)

Jay Schwartz
Assistant General Counsel
(as of November 7, 2021)

Office of the Secretary

Ann Misback
Secretary of the Board

Margaret M. Shanks
Deputy Secretary

Michele T. Fennell
Deputy Associate Secretary

Yao-Chin Chao
Assistant Secretary

Division of International Finance

Beth Anne Wilson
Director

Shaghil Ahmed
Deputy Director

Sally M. Davies
Deputy Director

Brian M. Doyle
Deputy Director

Carol Bertaut
Senior Associate Director

James A. Dahl
Senior Associate Director

Paul Wood
Senior Associate Director

Stephanie E. Curcuru
Associate Director

Matteo Iacoviello
Associate Director

Andrea Raffo
Associate Director

Jason Wu
Associate Director

Daniel Beltran
Deputy Associate Director

Viktors Stebunovs
Deputy Associate Director

Robert Vigfusson
Deputy Associate Director

Andrea De Michelis
Assistant Director
(as of November 7, 2021)

Jasper Hoek
Assistant Director
(as of November 7, 2021)

Seung Jung Lee
Assistant Director
(as of November 7, 2021)

Emre Yoldas
Assistant Director
(as of November 7, 2021)

[3] Asad Kudiya served as an adviser to Governor Waller in 2021.

Brett Berger
Senior Adviser

Ricardo Correa
Senior Adviser

John H. Rogers
Senior Adviser (through May 1, 2021)

Division of Financial Stability

Andreas W. Lehnert
Director

Michael T. Kiley
Deputy Director

William F. Bassett
Senior Associate Director

Elizabeth Klee
Senior Associate Director

John W. Schindler
Senior Associate Director

Luca Guerrieri
Deputy Associate Director

Kent C. Hiteshew
Deputy Associate Director
(through March 25, 2021)

Namirembe Mukasa
Deputy Associate Director and
Chief of Staff

Chiara Scotti[4]
Deputy Associate Director

Skander J. Van den Heuvel
Deputy Associate Director

David Arseneau
Assistant Director

Andrew M. Cohen
Assistant Director

Ceyhun Durdu
Assistant Director

Adele Cecile Morris
Senior Adviser
(as of October 12, 2021)

Uzma Wahhab
Senior Adviser (through
November 6, 2021)

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
(as of October 12, 2021)

Min Wei
Senior Associate Director

Gretchen C. Weinbach
Senior Associate Director
(through September 1, 2021)

Eric C. Engstrom[5]
Associate Director

Christopher J. Gust
Associate Director

Mary T. Hoffman
Associate Director
(through July 1, 2021)

Karen Brooks
Deputy Associate Director

Laura Lipscomb
Deputy Associate Director

Zeynep Senyuz
Deputy Associate Director

Rebecca Zarutskie
Deputy Associate Director

Brian Bonis
Assistant Director

Michiel De Pooter
Assistant Director
(through November 19, 2021)

Giovanni Favara
Assistant Director

Etienne Gagnon
Assistant Director

Dan Li
Assistant Director

Elizabeth Marx
Assistant Director

Antulio Bomfim[6]
Senior Adviser

Jane E. Ihrig[7]
Senior Adviser

Don H. Kim
Senior Adviser

Ellen E. Meade
Senior Adviser
(through September 1, 2021)

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4 Chiara Scotti served as an adviser to Vice Chair Clarida in 2021.
5 Eric C. Engstrom served as associate director in Research and Statistics and Monetary Affairs.
6 Antulio Bomfim served as an adviser to Governor Bowman in 2021.
7 Jane Ihrig served as an adviser to Governor Waller in 2021.

Edward M. Nelson
Senior Adviser

Robert J. Tetlow
Senior Adviser

Annette Vissing-Jorgensen
Senior Adviser (as of August 2, 2021)

Egon Zakrajsek
Senior Adviser
(through August 1, 2021)

Mark Carlson
Adviser (as of December 19, 2021)

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 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

Patrick E. McCabe
Deputy Associate Director

Norman J. Morin
Deputy Associate Director

Karen M. Pence
Deputy Associate Director

John M. Roberts
Deputy Associate Director
(through May 1, 2021)

Shane M. Sherlund
Deputy Associate Director

Lillian Shewmaker
Deputy Associate Director

Paul A. Smith
Deputy Associate Director

Deborah Flores
Assistant Director and Chief

Karen Krugman
Assistant Director and Chief

Gianni Amisano
Assistant Director

Shawn Bruckner
Assistant Director
(as of April 26, 2021)

Celso Brunetti
Assistant Director
(as of November 7, 2021)

Marco Cagetti
Assistant Director
(as of November 7, 2021)

Paul Lengermann
Assistant Director

Geng Li
Assistant Director

Byron Lutz
Assistant Director

Raven Molloy
Assistant Director

Kevin Moore
Assistant Director
(as of November 7, 2021)

Matthias Paustian
Assistant Director

Gustavo Suarez
Assistant Director

Clara Vega
Assistant Director

S. Wayne Passmore
Senior Adviser

Jeremy Rudd
Senior Adviser

Steven A. Sharpe
Senior Adviser

Wendy Dunn
Adviser

Charles Fleischman
Adviser

Division of Supervision and Regulation

Michael S. Gibson
Director

Jennifer Burns
Deputy Director

Kate Fulton
Deputy Director
(as of August 2, 2021)

Arthur W. Lindo
Deputy Director

James Price
Deputy Director
(through June 8, 2021)

Mary L. Aiken
Senior Associate Director

Marta Chaffee
Senior Associate Director
(as of September 12, 2021)

Molly Mahar
Senior Associate Director

Richard N. Ragan
Senior Associate Director

Lisa Ryu
Senior Associate Director

Thomas R. Sullivan
Senior Associate Director

Todd Vermilyea
Senior Associate Director

Kevin M. Bertsch
Associate Director

Nida Davis
Associate Director

Christopher Finger
Associate Director

Jeffery Gunther
Associate Director

Anna L. Hewko
Associate Director

Michael J. Hsu
Associate Director
(through May 8, 2021)

Shannon Kelly
Associate Director
(as of December 6, 2021)

Richard A. Naylor II
Associate Director

Uzma Wahhab
Associate Director (as of November 7, 2021)

John Beebe
Deputy Associate Director

Karen Caplan
Deputy Associate Director

James Ray Diggs
Deputy Associate Director

Mona Elliot
Deputy Associate Director

Constance Horsley
Deputy Associate Director

Kavita Jain
Deputy Associate Director

Kathleen Johnson
Deputy Associate Director

Ryan P. Lordos
Deputy Associate Director

Lara Lylozian
Deputy Associate Director/
Chief Accountant

David K. Lynch
Deputy Associate Director

Susan Motyka
Deputy Associate Director

T. Kirk Odegard
Deputy Associate Director

Vaishali Sack
Deputy Associate Director

Robert Sarama
Deputy Associate Director

Steven Spurry
Deputy Associate Director

Catherine A. Tilford
Deputy Associate Director

Donna Webb
Deputy Associate Director

Suzanne L. Williams
Deputy Associate Director

Dana Burnett
Assistant Director

Anthony Cain
Assistant Director

Juan Climent
Assistant Director

Keith Coughlin
Assistant Director

Christine Graham
Assistant Director

Eric L. Kennedy
Assistant Director

Brent Richards
Assistant Director

Emily Wells
Assistant Director

Norah M. Barger
Senior Adviser

Barbara J. Bouchard
Senior Adviser
(through February 1, 2021)

Fang Du
Adviser

William F. Treacy
Adviser

Division of Consumer and Community Affairs

Eric S. Belsky
Director

V. Nicole Bynum
Deputy Director

Anna Alvarez Boyd
Senior Associate Director

Benjamin K. Olson
Senior Associate Director
(as of August 30, 2021)

Carol A. Evans
Associate Director
(through October 9, 2021)

Joseph A. Firschein
Associate Director

Phyllis L. Harwell
Associate Director

Marisa A. Reid
Associate Director

David E. Buchholz
Deputy Associate Director

Angelyque Campbell
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

Gregory L. Evans
Senior Associate Director

Susan V. Foley
Senior Associate Director

Lawrence E. Mize
Senior Associate Director

Jennifer K. Liu
Associate Director

Jennifer A. Lucier
Associate Director

David C. Mills
Associate Director

Jeffrey Walker
Associate Director

Sonja Danburg
Deputy Associate Director

Brian Lawler
Deputy Associate Director

Timothy W. Maas
Deputy Associate Director

Mark Manuszak
Deputy Associate Director

Mark J. Olechowski
Deputy Associate Director

Rebecca L. Royer
Deputy Associate Director

Stuart E. Sperry
Deputy Associate Director

Casey Clark
Assistant Director

Jason Hinkle
Assistant Director

Travis D. Nesmith
Assistant Director and Chief

Caio Peixoto
Assistant Director

Nick Trotta
Assistant Director

Office of the Chief Operating Officer

Patrick J. McClanahan
Chief Operating Officer

Katherine Tom
Chief Data Officer

Sheila Clark
Diversity and Inclusion Program Director

Phillip C. Daher
Associate Director

Andrew Leonard
Associate Director

Steven Miranda
Adviser (through June 1, 2021)

Division of Financial Management

Ricardo Aguilera
Director and Chief Financial Officer

Stephen J. Bernard
Deputy Director

Monica Y. Manning
Associate Director

Jeffrey R. Peirce
Associate Director

Karen L. Vassallo
Associate Director

Thomas Murphy
Deputy Associate Director

Kimberly Briggs
Assistant 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

Donna J. Butler
Deputy Associate Director and Chief of Staff

Timothy E. Markey
Deputy Associate Director

Stephen E. Pearson
Deputy Associate Director

Katherine Perez
Deputy Associate Director and Assistant Chief, LEU

Reginald V. Roach
Deputy Associate Director

Lewis Andrews
Assistant Director (as of June 6, 2021)

Stewart Carroll
Assistant Director (as of March 28, 2021)

Catherine Jack
Assistant Director

Tim Ly
Assistant Director

Leah Middleton
Assistant Director

Division of Information Technology

Sharon L. Mowry
Director

Lisa M. Bell
Deputy Director
(through February 2, 2021)

Raymond Romero
Deputy Director

Kofi A. Sapong
Deputy Director

Glenn S. Eskow
Senior Associate Director

Stephen Olden
Senior Associate Director

Sheryl Lynn Warren
Senior Associate Director

Rajasekhar R. Yelisetty
Senior Associate Director

Deborah Prespare
Associate Director

Charles B. Young
Associate Director

William K. Dennison
Deputy Associate Director

Can Xuan Nguyen
Deputy Associate Director

Jonathan F. Shrier
Deputy Associate Director

Eric C. Turner
Deputy Associate Director
(through July 1, 2021)

Virginia M. Wall
Deputy Associate Director

Edgar Wang
Deputy Associate Director

Ivan K. Wun
Deputy Associate Director

Amy Kelley
Assistant Director

Brian Lester
Assistant Director

Scott Meyerle
Assistant Director

Langston Shaw
Assistant Director

Fred Vu
Assistant Director
(as of March 14, 2021)

Theresa C. Palya
Adviser
(through March 1, 2021)

Office of Inspector General

Mark Bialek
Inspector General

Fred Gibson
Deputy Inspector General

Stephen Carroll
Associate Inspector General

Peter Sheridan
Associate Inspector General

Michael VanHuysen
Associate Inspector General

Cynthia Gray
Assistant 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 2021, 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

Thomas I. Barkin
President, Federal Reserve
Bank of Richmond

Raphael W. Bostic
President, Federal Reserve
Bank of Atlanta

Michelle W. Bowman
Member, Board of Governors

Lael Brainard
Member, Board of Governors

Richard H. Clarida
Member, Board of Governors

Mary C. Daly
President, Federal Reserve
Bank of San Francisco

Charles L. Evans
President, Federal Reserve
Bank of Chicago

Randal K. Quarles
Member, Board of Governors

Christopher J. Waller
Member, Board of Governors

Alternate Members

James Bullard
President, Federal Reserve
Bank of St. Louis

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

Naureen Hassan
First Vice President, Federal Reserve
Bank of New York
(as of March 9, 2021)

Loretta J. Mester
President, Federal Reserve
Bank of Cleveland

Kenneth C. Montgomery
First Vice President, Federal Reserve
Bank of Boston
(as of November 3, 2021)

Helen E. Mucciolo
First Vice President, Federal Reserve
Bank of New York
(through March 9, 2021)

Eric Rosengren
President, Federal Reserve
Bank of Boston
(through September 30, 2021)

Officers

James A. Clouse
Secretary

Matthew M. Luecke
Deputy Secretary

Michelle A. Smith
Assistant Secretary

Mark E. Van Der Weide
General Counsel

Michael Held
Deputy General Counsel

Richard M. Ashton
Assistant General Counsel

Trevor A. Reeve
Economist

Stacey Tevlin
Economist

Beth Anne Wilson
Economist

Shaghil Ahmed
Associate Economist

David Altig
Associate Economist

Kartik B. Athreya
Associate Economist

Brian M. Doyle
Associate Economist

Rochelle M. Edge
Associate Economist

Eric M. Engen
Associate Economist

Beverly Hirtle
Associate Economist

Sylvain Leduc
Associate Economist

Anna Paulson
Associate Economist

William L. Wascher
Associate Economist

Lorie K. Logan
Manager, System Open Market Account

Patricia Zobel
Deputy Manager, System Open Market Account

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 2021, the council met on February 3–4, May 5–6, September 8–9, and December 1–2. The council met with the Board on February 4, May 6, September 9, and December 2, 2021.

Members

District 1

John R. Ciulla
President and Chief Executive Officer, Webster Financial Corporation and Webster Bank, Waterbury, CT

District 2

Rene F. Jones
Chairman and Chief Executive Officer, M&T Bank Corporation, Buffalo, 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

Jeffrey J. Brown
Chief Executive Officer, Ally Financial Inc., Detroit, MI

District 8

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

District 9

Kevin P. Riley
President and Chief Executive Officer, First Interstate BancSystem, Inc., Billings, MT

District 10

John B. Dicus
President and Chief Executive Officer, Capitol Federal Financial, Inc., Topeka, KS

District 11

Phillip D. Green
Chairman and Chief Executive Officer, Cullen/Frost Bankers Inc., San Antonio, TX

District 12

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

Officers

Jeffrey J. Brown
President

Rene F. Jones
Vice President

Herb Taylor
Secretary

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 2021, the council met on April 1 and November 18.

Members

District 1

Dorothy A. Savarese
Chairman, President, and Chief Executive Officer, Cape Cod 5, Orleans, MA

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

T. Michael Price
President and Chief Executive Officer, First Commonwealth Financial Corp., Indiana, PA

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

Shari Laven
Chief Executive Officer, Viking Bank, Alexandria, MN

District 10

Brad Koehn
Regional President, Midwest Bank, Lincoln, NE

District 11

Erik Beguin
Founder and Chief Executive Officer, Austin Capital Bank, Austin, TX

District 12

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

Officers

Dorothy A. Savarese
President

David R. Melville, III
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 2021, the council met with the Board on May 13 and October 21.

Members

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

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

Adrian M. Brooks
CEO, Memorial Community Development Corporation, Evansville, IN

Tawney Brunsch
Executive Director, Lakota Funds, Kyle, SD

Joshua Downey
Special Assistant, International Union of Painters and Allied Trades, Denver, CO

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

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

Andreanecia Morris
Executive Director, HousingNOLA, New Orleans, LA

Marc Norman
Associate Professor of Practice, University of Michigan, Taubman College of Architecture and Urban Planning, Ann Arbor, MI

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

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

Arjan Schutte
Founder & 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

Jesse Van Tol
CEO, National Community Reinvestment Coalition, Washington, DC

Officers

Marc Norman
Chair

Tawney Brunsch
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

Victoria Ivashina
Professor, Harvard Business School

Stijn Van Nieuwerburgh
Professor, Columbia University

Andrew Patton
Professor, Duke University

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.

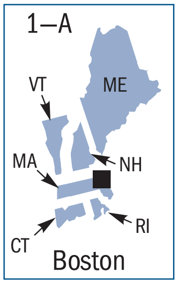
Reserve Bank and Branch Directors

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 2021 at https://www.federalreserve.gov/aboutthefed/files/bostonfinstmt2021.pdf.

Class A

Chandler Howard, 2021
Retired President and Chief Executive Officer, Liberty Bank, Middletown, CT

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

Class B

Lauren A. Smith, 2021
Chief Health Equity and Strategy Officer, CDC Foundation, Boston, MA

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

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

Class C

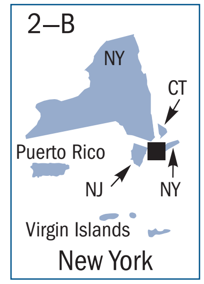
Corey Thomas, 2021
Chairman and Chief Executive Officer, Rapid7, LLC, Boston, MA

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

Roger W. Crandall, 2023
Chairman, President, and Chief Executive Officer, MassMutual Financial Group, Springfield, 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 2021 at https://www.federalreserve.gov/aboutthefed/files/newyorkfinstmt2021.pdf.

Class A

James P. Gorman, 2021
Chairman and Chief Executive Officer, Morgan Stanley, New York, NY

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

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

Class B

Scott Rechler, 2021
Chairman and Chief Executive Officer, RXR Realty LLC, New York, NY

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

Vacancy, 2023

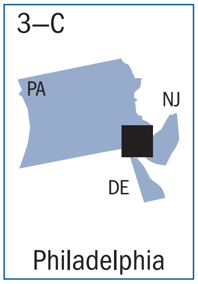
Class C

Vincent Alvarez, 2021
President, New York City Central Labor Council, AFL-CIO, New York, NY

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

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

District 3–Philadelphia



Covers the state of Delaware; nine 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 2021 at https://www.federalreserve.gov/aboutthefed/files/philadelphiafinstmt2021.pdf.

Class A

Timothy Snyder, 2021
President and Chief Executive Officer, Fleetwood Bank, Fleetwood, PA

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

Class B

Julia H. Klein, 2021
Chairwoman and Chief Executive Officer, C. H. Briggs Company, Reading, PA

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

Patricia Hasson, 2023
Retired President and Executive Director, Clarifi, Philadelphia, PA

Class C

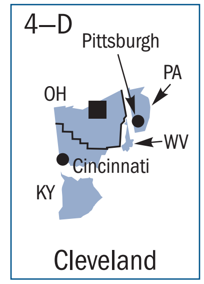
Sharmain Matlock-Turner, 2021
President and Chief Executive Officer, Urban Affairs Coalition, Philadelphia, PA

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

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 2021 at https://www.federalreserve.gov/aboutthefed/files/clevelandfinstmt2021.pdf.

Class A

Eddie L. Steiner, 2021
President and Chief Executive Officer, CSB Bancorp, Inc., Millersburg, OH

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

Class B

Valarie L. Sheppard, 2021
Retired Controller and Treasurer, Group Vice President-Company Transition Leader, The Procter & Gamble Company, Cincinnati, OH

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

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

Class C

Ana G. Rodriguez, 2021
Senior Vice President and Chief Human Resources Officer, The Lubrizol Corporation, Cleveland, OH

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

Cincinnati Branch

Appointed by the Federal Reserve Bank

Tucker Ballinger, 2021
President and Chief Executive Officer, Forcht Bank, N.A., Lexington, KY

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

Appointed by the Board of Governors

Rachid Abdallah, 2021
Chairman and Chief Executive Officer, Jedson Engineering, Cincinnati, OH

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

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

Pittsburgh Branch

Appointed by the Federal Reserve Bank

Vera Krekanova, 2021
Chief Strategy and Research Officer, Allegheny Conference on Community Development, Pittsburgh, PA

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

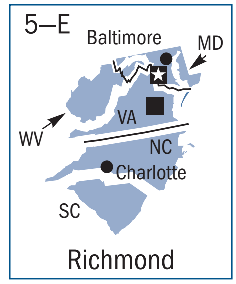
Appointed by the Board of Governors

Dmitri D. Shiry, 2021
Retired Partner Deloitte-Pittsburgh, Deloitte LLP, Pittsburgh, PA

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

Suzanne Mellon, 2023
President Emerita, Carlow University, 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 2021 at https://www.federalreserve.gov/aboutthefed/files/richmondfinstmt2021.pdf.

Class A

James H. Sills, III, 2021
President and Chief Executive Officer, Mechanics and Farmers Bank, Durham, NC

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

Class B

Catherine A. Meloy, 2021
President and Chief Executive Officer, Goodwill of Greater Washington/ Goodwill Excel Center, Washington, DC

Wayne A. I. Frederick, MD, 2022
President, Howard University, Washington, DC

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

Class C

Eugene A. Woods, 2021
President and Chief Executive Officer, Atrium Health, Charlotte, NC

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

Baltimore Branch

Appointed by the Federal Reserve Bank

Laura L. Gamble, 2021
Regional President Greater Maryland, PNC, Baltimore, MD

Tom Geddes, 2021
Partner and Portfolio Manager, Brown Advisory, Baltimore, MD

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

Appointed by the Board of Governors

Kenneth R. Banks, 2021
President and Chief Executive Officer, Banks Contracting Company, Greenbelt, MD

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

Charlotte Branch

Appointed by the Federal Reserve Bank

George Dean Johnson III, 2021
Chief Executive Officer, Johnson Development Associates, Inc., Spartanburg, SC

Jerry L. Ocheltree, 2021
President and Chief Executive Officer,
United Bank, Lincolnton, NC

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

Vacancy, 2023

Appointed by the Board of Governors

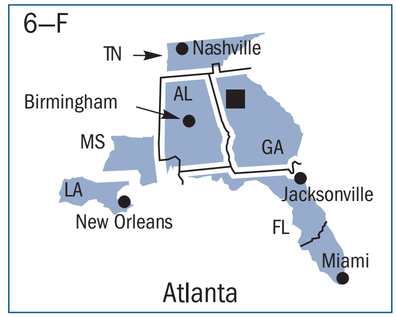
Bernett William Mazyck, 2021
President and Chief Executive Officer,
South Carolina Association for
Community Economic Development,
Charleston, SC

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

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 2021 at https://www.federalreserve.gov/aboutthefed/files/atlantafinstmt2021.pdf.

Class A

Claire W. Tucker, 2021
Founding President and Chief Executive Officer Emerita, CapStar Financial Holdings, Inc., Nashville, TN

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

Class B

Michael Russell, 2021
Chief Executive Officer, H.J. Russell and Company, Atlanta, GA

Mary A. Laschinger, 2022
Former Chairman and Chief Executive Officer, Veritiv Corporation, Atlanta, GA

Gregory A. Haile, 2023
President, Broward College, Fort Lauderdale, FL

Class C

Claire Lewis Arnold, 2021
Chief Executive Officer, Leapfrog Services, Inc., Atlanta, GA

Elizabeth A. Smith, 2022
Former Executive Chair, Bloomin' Brands, Inc., Tampa, FL

Myron A. Gray, 2023
Retired President, U.S. Operations, United Parcel Service, Atlanta, GA

Birmingham Branch

Appointed by the Federal Reserve Bank

David M. Benck, 2021
Vice President and General Counsel, Hibbett, Inc., Birmingham, AL

David L. Nast, 2021
President and Chief Executive Officer, Progress Bank, Huntsville, AL

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

Appointed by the Board of Governors

Christy Thomas, 2021
President and Co-Founder, Thomas James Co., Birmingham, AL

Merrill H. Stewart, Jr., 2022
President, The Stewart/Perry Company, Inc., Birmingham, AL

Maye Head-Frei, 2023
Chairman, Ram Tool and Supply Company, Birmingham, AL

Jacksonville Branch

Appointed by the Federal Reserve Bank

John Hirabayashi, 2021
President and Chief Executive Officer, Community First Credit Union of Florida, Jacksonville, FL

Dawn Lockhart, 2021
Director of Strategic Partnerships, Office of the Mayor, City of Jacksonville, Jacksonville, FL

Paul G. Boynton, 2022
Vice Chairman, Rayonier Advanced Materials, Inc., Jacksonville, FL

William O. West, 2023
Chief Executive Officer, The Bank of Tampa, Tampa, FL

Appointed by the Board of Governors

Timothy P. Cost, 2021
President, Jacksonville University, Jacksonville, FL

Nicole B. Thomas, 2022
Hospital President, Baptist Medical Center Jacksonville, Jacksonville, FL

Edward A. Moratin, 2023
President, LIFT Orlando, Orlando, FL

Miami Branch

Appointed by the Federal Reserve Bank

Abel L. Iglesias, 2021
President and Chief Operating Officer, Professional Bank, Coral Gables, FL

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

Appointed by the Board of Governors

Michael A. Wynn, 2021
Board Chairman and President, Sunshine Ace Hardware, Bonita Springs, FL

Ana M. Menendez, 2022
Chief Financial Officer and Treasurer, Watsco, Inc., Miami, FL

Keith T. Koenig, 2023
Chief Executive Officer, City Furniture, Tamarac, FL

Nashville Branch

Appointed by the Federal Reserve Bank

Beth R. Chase, 2021
Former Senior Managing Director, Ankura Consulting Group, Nashville, TN

Leif M. Murphy, 2021
Chief Executive Officer, TeamHealth Holdings, Inc., Knoxville, TN

Amber W. Krupacs, 2022
Chief Financial Officer and Executive Vice President, Clayton Homes, Maryville, TN

John W. Garratt, 2023
Executive Vice President and Chief Financial Officer, Dollar General, Goodlettsville, TN

Appointed by the Board of Governors

Thomas Zacharia, 2021
Laboratory Director/ President and Chief Executive Officer, Oak Ridge National Laboratory/ UT-Battelle, LLC, Oak Ridge, TN

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

New Orleans Branch

Appointed by the Federal Reserve Bank

Katherine A. Crosby, 2021
Board Chair, Fidelity Bank, New Orleans, LA

David T. Darragh, 2021
Operating Partner, LongueVue Capital, Metairie, LA

Vacancy, 2022

William G. Yates III, 2023
President and Chief Executive Officer, W.G. Yates & Sons Construction Company, Biloxi, MS

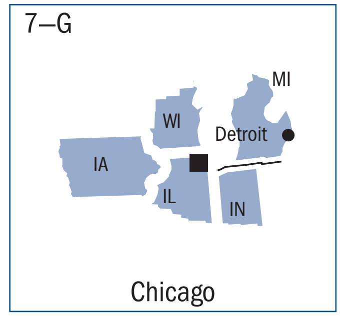
Appointed by the Board of Governors

Art E. Favre, 2021
President and Chief Executive Officer, Performance Contractors, Inc., Baton Rouge, LA

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

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 2021 at https://www.federalreserve.gov/aboutthefed/files/chicagofinstmt2021.pdf.

Class A

Christopher J. Murphy III, 2021
Chairman and Chief Executive Officer, 1st Source Bank, South Bend, IN

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

Class B

Susan M. Collins, 2021
Interim Provost and Executive Vice President for Academic Affairs, University of Michigan, Ann Arbor, MI

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

Class C

Wright L. Lassiter III, 2021
President and Chief Executive Officer, Henry Ford Health System, Detroit, MI

Helene D. Gayle, 2022
President and Chief Executive Officer, The Chicago Community Trust, Chicago IL

E. Scott Santi, 2023
Chairman and Chief Executive Officer, Illinois Tool Works Inc., Glenview, IL

Detroit Branch

Appointed by the Federal Reserve Bank

Rip Rapson, 2021
President and Chief Executive Officer, The Kresge Foundation, Troy, MI

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

Sandra E. Pierce, 2023
Senior Executive Vice President, Private Client Group and Regional Banking Director, and Chair of Michigan, Huntington Bank, Southfield, MI

Appointed by the Board of Governors

James M. Nicholson, 2021
Co-Chairman, PVS Chemicals, Inc., Detroit, MI

Linda P. Hubbard, 2022
President and Chief Operating Officer, Carhartt, Inc., Dearborn, MI

Joseph B. Anderson, Jr., 2023
Chairman and Chief Executive Officer, TAG Holdings, LLC, Wixom, 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 2021 at https://www.federalreserve.gov/aboutthefed/files/stlouisfinstmt2021.pdf.

Class A

Patricia L. Clarke, 2021
President and Chief Executive Officer, First National Bank of Raymond, Raymond, IL

C. Mitchell Waycaster, 2022
President and Chief Executive Officer, Renasant Bank, Tupelo, MS

Elizabeth G. McCoy, 2023
Chief Executive Officer, Planters Bank, Hopkinsville, KY

Class B

Alice K. Houston, 2021
Chief Executive Officer, HJI Supply Chain Solutions, Louisville, KY

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

Class C

Suzanne Sitherwood, 2021
President and Chief Executive Officer, Spire Inc., St. Louis, MO

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

Little Rock Branch

Appointed by the Federal Reserve Bank

Jeff Lynch, 2021
President and Chief Executive Officer, Eagle Bank and Trust, Little Rock, AR

Christopher B. Hegi, 2022
Chief Executive Officer, First Financial Bank, El Dorado, AR

Vincent G. Logan, 2023
Chief Financial Officer and Chief Investment Officer, Native American Agriculture Fund, Fayetteville, AR

Darrin Williams, 2023
Chief Executive Officer, Southern Bancorp, Inc., Little Rock, AR

Appointed by the Board of Governors

Jamie Henry, 2021
Vice President Finance, Emerging Payments, Walmart Inc., Bentonville, AR

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

Louisville Branch

Appointed by the Federal Reserve Bank

Ben Reno-Weber, 2021
Project Director, Greater Louisville Project, Louisville, KY

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, First Breckinridge Bancshares, Inc., Irvington, KY

Appointed by the Board of Governors

Emerson M. Goodwin, 2021
Senior Vice President of Business Development, ARcare d/b/a KentuckyCare, Paducah, KY

David Tatman, 2022
Director of Engineering, Bendix Spicer Foundation Brake, LLC, Bowling Green, KY

Sadiqa N. Reynolds, 2023
President, Louisville Urban League, Louisville, KY

Memphis Branch

Appointed by the Federal Reserve Bank

Beverly Crossen, 2021
Owner, Farmhouse Tupelo, Tupelo, MS

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

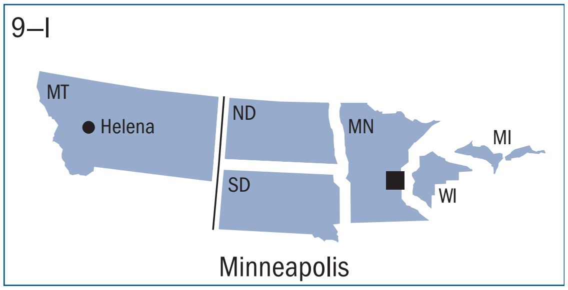
Appointed by the Board of Governors

Eric D. Robertson, 2021
President, Community LIFT Corporation, Memphis, TN

Katherine Buckman Gibson, 2022
Chief Executive Officer, KBG Technologies, LLC, Memphis, TN

Michael Ugwueke, 2023
President and Chief Executive Officer, Methodist Le Bonheur Healthcare, 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 2021 at https://www.federalreserve.gov/aboutthefed/files/minneapolisfinstmt2021.pdf.

Class A

Jeanne H. Crain, 2021
President and Chief Executive Officer, Bremer Financial Corporation, St. Paul, MN

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

Class B

Sarah Walsh, 2021
Chief Operating Officer, PayneWest Insurance, Helena, MT

David R. Emery, 2022
Executive Chairman, Retired, Black Hills Corporation, Rapid City, SD

Paul D. Williams, 2023
President and Chief Executive Officer, Project for Pride in Living, Minneapolis, MN

Class C

Harry D. Melander, 2021
Retired President, Minnesota Building and Construction Trades Council, St. Paul, MN

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

Helena Branch

Appointed by the Federal Reserve Bank

Jason Adams, 2021
Owner and Consultant, Ace Housing and Development, LLC, Polson, MT

Mary Rutherford, 2022
President and Chief Executive Officer, Montana Community Foundation, Helena, MT

William E. Coffee, 2023
Chief Executive Officer, Stockman Financial Corporation, Billings, MT

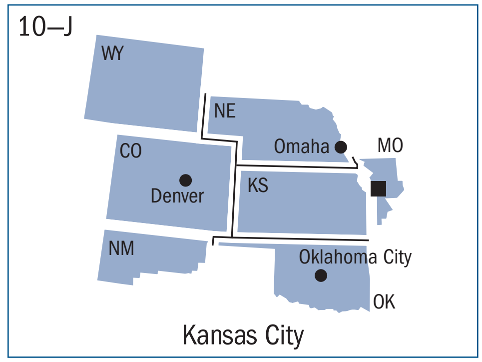
Appointed by the Board of Governors

Bobbi Wolstein, 2021
Chief Financial Officer, LHC, Inc., Kalispell, MT

Alan D. Ekblad, 2023
Senior Status, Montana AFL-CIO, Helena, 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 2021 at https://www.federalreserve.gov/aboutthefed/files/kansascityfinstmt2021.pdf.

Class A

Kyle Heckman, 2021
Chairman, President, and Chief Executive Officer, Flatirons Bank, Boulder, CO

Gregory Hohl, 2022
Chairman and President, Wahoo State Bank, Wahoo, NE

Patricia J. Minard, 2023
Chairman, President, and Chief Executive Officer, Southwest National Bank, Wichita, KS

Class B

Cassandra R. Savage, 2021
Owner and Member, The Savage Group, LLC, Lenexa, KS

Douglas J. Stussi, 2022
Executive Adviser, Love Family of Companies, Oklahoma City, OK

Ruben Alonso III, 2023
President, AltCap, Kansas City, MO

Class C

Edmond Johnson, 2021
President and Owner, Premier Manufacturing, Inc., Frederick, CO

Patrick A. Dujakovich, 2022
President, Greater Kansas City AFL-CIO, Kansas City, MO

Maria Griego-Raby, 2023
President and Principal, Contract Associates, Albuquerque, NM

Denver Branch

Appointed by the Federal Reserve Bank

Nicole Glaros, 2021
Chief Investment Strategy Officer, Techstars, Boulder, CO

Chris Wright, 2021
Chief Executive Officer, Liberty Oilfield Services, Denver, CO

Jeffrey C. Wallace, 2022
Chief Executive Officer, Wyoming Bank & Trust, Cheyenne, WY

Rachel Gerlach, 2023 Chief Credit Officer, Alpine Bank, Glenwood Springs, CO

Appointed by the Board of Governors

Jacqueline Baca, 2021
President, Bueno Foods, Albuquerque, NM

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

Oklahoma City Branch

Appointed by the Federal Reserve Bank

J. Walter Duncan IV, 2021
President, Duncan Oil Properties, Inc., Oklahoma City, OK

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

Appointed by the Board of Governors

Tina Patel, 2021
Chief Financial Officer, Promise Hotels, LLC, Tulsa, OK

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

Omaha Branch

Appointed by the Federal Reserve Bank

Thomas J. Henning, 2021
President and Chief Executive Officer, Cash-Wa Distributing Co., Kearney, NE

Zac Karpf, 2021
President, Platte Valley Bank, Scottsbluff, NE

Annette Hamilton, 2022
Chief Operating Officer, Ho-Chunk, Inc., Winnebago, NE

Dwayne W. Sieck, 2023
Managing Principal, Farnam Street Real Estate Capital, Omaha, NE

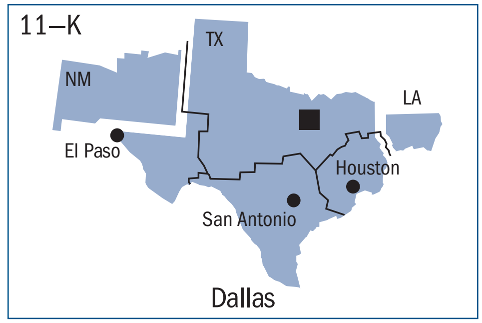
Appointed by the Board of Governors

Kimberly A. Russel, 2021
Chief Executive Officer, Russel Advisors, Lincoln, NE

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

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 2021 at https://www.federalreserve.gov/aboutthefed/files/dallasfinstmt2021.pdf.

Class A

Kelly A. Barclay, 2021
President and Chief Executive Officer, Ozona Bank, Wimberly, TX

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

Class B

Renard U. Johnson, 2021
President and Chief Executive Officer, Management & Engineering Technologies International, Inc., El Paso, TX

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

Class C

Greg L. Armstrong, 2021
Retired Chairman and Chief Executive Officer, Plains All American Pipeline L.P., Houston, TX

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

El Paso Branch

Appointed by the Federal Reserve Bank

William Serrata, 2021
President, El Paso Community College, El Paso, TX

Von C. Washington, Sr., 2022
President, IDA Technology, El Paso, TX

Jill Gutierrez, 2023
Director, Bank 34, Alamogordo, NM

Sally A. Hurt-Deitch, 2023
Senior Vice President of Operations, Ascension, El Paso, TX

Appointed by the Board of Governors

Tracy J. Yellen, 2021
Chief Executive Officer, Paso del Norte Community Foundation and Paso Del Norte Health Foundation, El Paso, TX

Julio Chiu, 2022
Founder and Chief Executive Officer, Seisa Group, El Paso, TX

Vacancy, 2023

Houston Branch

Appointed by the Federal Reserve Bank

David Zalman, 2021
Chairman and Chief Executive Officer, Prosperity Bancshares, Houston, TX

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

Appointed by the Board of Governors

Vacancy, 2021

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

San Antonio Branch

Appointed by the Federal Reserve Bank

Alfred B. Jones, 2021
Director, American Bank Holding Corp., Corpus Christi, TX

Charles E. Amato, 2022
Chairman and Co-Founder, Southwest Business Corp., San Antonio, TX

Veronica Muzquiz Edwards, 2023
Chief Executive Officer, InGenesis, Inc., San Antonio, TX

Tyson Tuttle, 2023
President and Chief Executive Officer, Silicon Labs, Austin, TX

Appointed by the Board of Governors

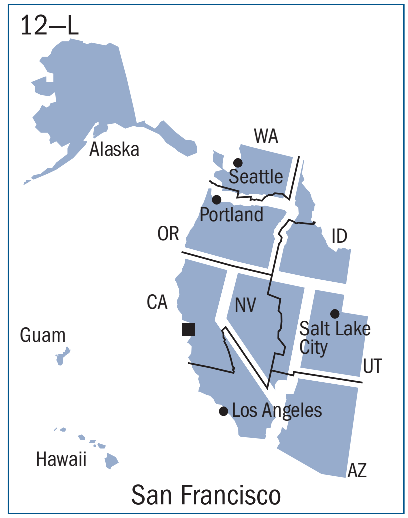
Jesús Garza, 2021
Retired President and Chief Executive Officer, Seton Healthcare Family, Austin, TX

Denise M. Trauth, 2022
President, Texas State University, San Marcos, TX

Paula Gold-Williams, 2023
President and Chief Executive Officer, CPS Energy, San Antonio, 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 2021 at https://www.federalreserve.gov/aboutthefed/files/sanfranciscofinstmt2021.pdf.

Class A

Greg Becker, 2021
President and Chief Executive Officer, SVB Financial Group, Chief Executive Officer, Silicon Valley Bank, Santa Clara, CA

Vacancy, 2022

S. Randolph Compton, 2023
Co-Chair of the Board, Pioneer Trust Bank, N.A., Salem, OR

Class B

Arthur F. Oppenheimer, 2021
Chairman and Chief Executive Officer, Oppenheimer Companies, Inc., President, Oppenheimer Development Corporation, Boise, ID

Sanford L. Michelman, 2022
Chairman, Michelman & Robinson, LLP, Los Angeles, CA

Karen Lee, 2023
Chief Executive Officer, Pioneer Human Services, Seattle, WA

Class C

David P. White, 2021
Immediate Past Chief Executive Officer, Chief Negotiator and Strategic Advisor, SAG-AFTRA, Venture Partner, Ulu Ventures, Los Angeles, CA

Rosemary Turner, 2022
Retired President, North California District, United Parcel Service, Inc., Oakland, CA

Tamara L. Lundgren, 2023
Chairman, President, and Chief Executive Officer, Schnitzer Steel Industries, Inc., Portland, OR

Los Angeles Branch

Appointed by the Federal Reserve Bank

Maritza Diaz, 2021
Chief Executive Officer, iTjuana, San Marcos, CA

Jack Sinclair, 2021
Chief Executive Officer, Sprouts Farmers Market, Phoenix, AZ

Wayne Bradshaw, 2022
Chairman, Broadway Financial Corporation, Los Angeles, CA

Theresa Benelli, 2023
Executive Director, LISC Phoenix, Phoenix, AZ

Appointed by the Board of Governors

Anita V. Pramoda, 2021
Chief Executive Officer, Owned Outcomes, Las Vegas, NV

Mario Cordero, 2022
Executive Director, Port of Long Beach, Long Beach, CA

Carl J.P. Chang, 2023
Chief Executive Officer, Kairos Investment Management Company, Chairman of the Board, Pieology Pizzeria, Rancho Santa Margarita, CA

Portland Branch

Appointed by the Federal Reserve Bank

Stacey M.L. Dodson, 2021
Market President, Portland and Southwest Washington, U.S. Bank, Portland, OR

Maria Pope, 2022
President and Chief Executive Officer, Portland General Electric Company, Portland, OR

Hilary K. Krane, 2023
Executive Vice President, Chief Administrative Officer, and General Counsel, Nike, Inc., Beaverton, OR

Cheryl R. Nester Wolfe, 2023
President and Chief Executive Officer, Salem Health Hospital and Clinics, Salem, OR

Appointed by the Board of Governors

Gale Castillo, 2021
President, Cascade Centers, Inc., Portland, OR

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

Salt Lake City Branch

Appointed by the Federal Reserve Bank

Lisa Ann Grow, 2021
President and Chief Executive Officer, IdaCorp & Idaho Power, Boise, ID

Deneece Huftalin, 2022
President, Salt Lake Community College, Tayorsville, UT

Jas Krdzalic, 2023
Executive Chairman, Bodybuilding.com, Boise, ID

Len E. Williams, 2023
President and Chief Executive Officer, Altabank, American Fork, UT

Appointed by the Board of Governors

O. Randall Woodbury, 2021
President and Chief Executive Officer, Woodbury Corporation, Salt Lake City, UT

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

Seattle Branch

Appointed by the Federal Reserve Bank

Cheryl B. Fambles, 2021
Chief Executive Officer, Pacific Mountain Workforce Development Council, Tumwater, WA

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

Appointed by the Board of Governors

West Mathison, 2021
President, Stemilt Growers, LLC, Wenatchee, WA

Sheila Edwards Lange, 2022
Chancellor, University of Washington, Tacoma, WA

John Wolfe, 2023
Chief Executive Officer, Northwest Seaport Alliance, Tacoma, 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

Kenneth C. Montgomery, Interim President and Chief Executive Officer, First Vice President

New York

Denise Scott, Chair

Rosa Gil, Deputy Chair

John C. Williams, President and Chief Executive Officer

Naureen Hassan, First Vice President

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

Gregory L. Stefani, First Vice President and Chief Operating Officer

Cincinnati

Rachid Abdallah, Chair

Rick Kaglic, Vice President and Senior Regional Officer

Pittsburgh

Dmitri D. Shiry, 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

Kenneth R. Banks, Chair

Andy Bauer, Vice President and Baltimore Regional Executive

Charlotte

R. Glenn Sherrill, Jr, Chair

Matthew A. Martin, Senior 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

Merrill H. Stewart, Jr., Chair

Anoop Mishra, Vice President and Regional Executive

Jacksonville

Timothy P. Cost, Chair

Christopher L. Oakley, Vice President and Regional Executive

Miami

Michael A. Wynn, Chair

Karen Gilmore, Vice President and Regional Executive

Shari Bower, Vice President and Regional Executive

Nashville

Thomas Zacharia, Chair

Laurel Graefe, Vice President and Regional Executive

New Orleans

Michael E. Hicks, Jr., Chair

Adrienne C. Slack, Vice President and Regional Executive

Chicago

E. Scott Santi, Chair

Helene D. Gayle, MD, 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

Joseph B. Anderson, Jr, Chair

Rick Mattoon, Vice President and Regional Executive

St. Louis

Suzanne Sitherwood, Chair

James M. McKelvey, Jr., Deputy Chair

James B. Bullard, President and Chief Executive Officer

Kathy O. Paese, First Vice President and Chief Operating Officer

Little Rock

Jamie Henry, Chair

Robert Hopkins, Senior Vice President and Regional Executive

Louisville

Emerson M. Goodwin, Chair

Nikki R. Lanier, Senior Vice President and Regional Executive

Memphis

Katherine Buckman Gibson, Chair

Douglas G. Scarboro, Senior Vice President and Regional Executive

Minneapolis

Srilata Zaheer, Chair

Harry D. Melander, 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

Tina Patel, Chair

Chad R. Wilkerson, Vice President and Branch Executive

Omaha

Kimberly A. Russel, Chair

Nathan Kauffman, Assistant Vice President and Branch Executive

Dallas

Greg L. Armstrong, Chair

Thomas J. Falk, Deputy Chair

Meredith N. Black, Interim President

Robert L. Triplett, III, First Vice President and Chief Operating Officer

El Paso

Tracy J. Yellen, Chair

Roberto A. Coronado, Senior Vice President in Charge

Houston

Darryl L. Wilson, Chair

Daron D. Peschel, Senior Vice President in Charge

San Antonio

Jesús Garza, Chair

Roberto A. Coronado, Senior Vice President in Charge

San Francisco

Rosemary Turner, Chair

Tamara L. Lundgren, 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

Anita V. Pramoda, Chair

Qiana Charles, Vice President and Regional Executive

Portland

Anne C. Kubisch, Chair

Ian Galloway, Vice President and Regional Executive

Salt Lake City

Russell A. Childs, Chair

Becky Potts, Vice President and Regional Executive

Seattle

West Mathison, 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 4 and 5, 2021, and November 16 and 17, 2021. The conference's executive committee members for 2021 are listed below.[8]

Conference of Chairs Executive Committee—2021

Greg L. Armstrong, Chair, Federal Reserve Bank of Dallas

Elizabeth A. Smith, Vice Chair, Federal Reserve Bank of Atlanta

Eugene A. Woods, Member, Federal Reserve Bank of Richmond

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 2021 are listed below.

Conference of Presidents—2021

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

Tasnim F. Battles, Assistant Secretary, Federal Reserve Bank of New York

[8] On November 17, 2021, the Conference of Chairs elected Elizabeth A. Smith, chair of the Federal Reserve Bank of Atlanta, as chair of the conference's executive committee for 2022. The conference also elected Eugene A. Woods, chair of the Federal Reserve Bank of Richmond, as vice chair, and Helene D. Gayle, MD, deputy chair of the Federal Reserve Bank of Chicago, 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 2021 are listed below.[9]

Conference of First Vice Presidents—2021

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

[9] On December 8, 2020, the conference elected James Narron, Federal Reserve Bank of Philadelphia, as chair for 2022 and Ron Feldman, Federal Reserve Bank of Minneapolis, as vice chair. The conference also elected Josh Silverstein, Federal Reserve Bank of Philadelphia, as secretary and Jamica Quilin, Federal Reserve Bank of Minneapolis, 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 2021 are in the list below.

Meeting Minutes

- Meeting held on January 26–27, 2021
  https://www.federalreserve.gov/monetarypolicy/files/fomcminutes20210127.pdf
- Meeting held on March 16–17, 2021
  https://www.federalreserve.gov/monetarypolicy/files/fomcminutes20210317.pdf
- Meeting held on April 27–28, 2021
  https://www.federalreserve.gov/monetarypolicy/files/fomcminutes20210428.pdf
- Meeting held on June 15–16, 2021
  https://www.federalreserve.gov/monetarypolicy/files/fomcminutes20210616.pdf
- Meeting held on July 27–28, 2021
  https://www.federalreserve.gov/monetarypolicy/files/fomcminutes20210728.pdf
- Meeting held on September 21–22, 2021
  https://www.federalreserve.gov/monetarypolicy/files/fomcminutes20210922.pdf
- Meeting held on November 2–3, 2021
  https://www.federalreserve.gov/monetarypolicy/files/fomcminutes20211103.pdf
- Meeting held on December 14–15, 2021
  https://www.federalreserve.gov/monetarypolicy/files/fomcminutes20211215.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. In the area of domestic open market operations, the Federal Reserve Bank of New York operates under instructions from the Federal Open Market Committee that take the form of an Authorization for Domestic Open Market Operations and a Domestic Policy Directive. (A new Domestic Policy Directive is adopted at each regularly scheduled meeting.) In the foreign currency area, the Federal Reserve Bank of New York operates under an Authorization for Foreign Currency Operations and a Foreign Currency Directive. Changes in the instruments 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] As of January 1, 2021, the Federal Reserve Bank of New York was operating under the Domestic Policy Directive approved at the December 15–16, 2020, Committee meeting. Two other policy instruments (the Authorization for Foreign Currency Operations and the Foreign Currency Directive) in effect as of January 1, 2021, were approved by notation vote on March 19, 2020. The Authorization for Domestic Open Market Operations in effect as of January 1, 2021, was approved by notation vote on March 31, 2020.

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 public accounting firm retained by the Board's Office of Inspector General (OIG). The public accounting firm 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 public accounting firm 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 informed about serious abuses and deficiencies.

Most recently, the OIG has focused significant resources on oversight of the Board's pandemic response efforts. Specifically, the OIG has identified a management challenge related to the creation of the Board's emergency lending programs and facilities and updated three previously identified challenges to account for new aspects presented by the pandemic. The OIG also initiated multiple audits and evaluations, with other work planned, in key risk areas and opened investigations of alleged fraud related to these programs.

During 2021, the OIG issued 17 reports (table C.1). In addition, the OIG issued to the Board and to the CFPB eight memorandums on information technology issues and two risk-assessment memorandums. Because of the sensitive nature of some of the material, six of the 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, 68 investigations were opened and 36 investigations were closed during the year. OIG investigative work resulted in 38 arrests, 7 criminal complaints, 19 criminal informations, 43 indictments, 38 convictions, and 4 prohibitions from the banking industry, as well as $24,084,492 in criminal fines, restitution, and special assessments. The OIG

Table C.1. OIG reports issued in 2021

Report title	Month issued
The Board Economics Divisions Can Enhance Some of Their Planning Processes for Economic Analysis	February
Forensic Evaluation of the Bureau's Vendor Payment Process	February
Federal Financial Institutions Examination Council Financial Statements as of and for the Years Ended December 31, 2020 and 2019, and Independent Auditors' Reports	February
Board of Governors of the Federal Reserve System Financial Statements as of and for the Years Ended December 31, 2020 and 2019, and Independent Auditors' Reports	March
The Board Can Improve the Management of Its Renovation Projects	March
The Bureau Can Strengthen Its Hiring Practices and Can Continue Its Efforts to Cultivate a Diverse Workforce	March
Independent Accountants' Report on the Bureau's Fiscal Year 2020 Compliance With the Payment Integrity Information Act of 2019	April
The Board's Payroll Controls Are Generally Effective	June
The Bureau Can Improve Its Controls for Issuing and Managing Interagency Agreements	July
Evaluation of the Bureau's Implementation of Splunk (nonpublic report)	September
The Board's Implementation of Enterprise Risk Management Continues to Evolve and Can Be Enhanced	September
The Board Can Improve the Efficiency and Effectiveness of Certain Aspects of Its Consumer Compliance Examination and Enforcement Action Issuance Processes	October
Independent Auditors' Report on the Bureau's Fiscal Year 2021 Compliance With the Digital Accountability and Transparency Act of 2014	October
2021 Audit of the Board's Information Security Program	October
2021 Audit of the Bureau's Information Security Program	October
The Bureau Can Improve Aspects of Its Quality Management Program for Supervision Activities	November
The Bureau Can Further Enhance Certain Aspects of Its Approach to Supervising Nondepository Institutions	December

also issued two semiannual reports to Congress. The OIG performed 30 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, as well as the Coronavirus Aid, Relief, and Economic Security Act of 2020, directs the GAO to conduct additional audits with respect to these operations. In 2021, the GAO completed 17 projects that involved the Federal Reserve (table C.2). Thirteen projects were ongoing as of December 31, 2021 (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 2021

Report title	Report number	Month issued
Macroprudential Oversight: Principles for Evaluating Policies to Assess and Mitigate Risks to Financial System Stability	GAO-21-230SP	January
COVID-19: Critical Vaccine Distribution, Supply Chain, Program Integrity, and Other Challenges Require Focused Federal Attention	GAO-21-265	January
COVID-19: Sustained Federal Action Is Crucial as Pandemic Enters Its Second Year	GAO-21-387	March
Retirement Security: Debt Increased for Older Americans over Time, but the Implications Vary by Debt Type	GAO-21-170	May
Home Mortgage Disclosure Act: Reporting Exemptions Had a Minimal Impact on Data Availability, but Additional Information Would Enhance Oversight	GAO-21-350	May
Fair Lending: CFPB Needs to Assess the Impact of Recent Changes to Its Fair Lending Activities	GAO-21-393	June
Financial Services Industry: Factors Affecting Careers for Women with STEM Degrees	GAO-21-490	June
COVID-19: Continued Attention Needed to Enhance Federal Preparedness, Response, Service Delivery, and Program Integrity	GAO-21-551	July
National Flood Insurance Program: Congress Should Consider Updating the Mandatory Purchase Requirement	GAO-21-578	July
Federal Debt Management: Treasury Quickly Financed Historic Government Response to the Pandemic and Is Assessing Risks to Market Functioning	GAO-21-606	August
Federal Reserve Lending Programs: Credit Markets Served by the Programs Have Stabilized, but Vulnerabilities Remain	GAO-22-104640	October
COVID-19: Additional Actions Needed to Improve Accountability and Program Effectiveness of Federal Response	GAO-22-105051	October
Financial Audit: Bureau of the Fiscal Service's FY 2021 and FY 2020 Schedules of Federal Debt	GAO-22-104592	November

(continued)

Table C.2—*continued*

Report title	Report number	Month issued
Countering Illicit Finance and Trade: Better Information Sharing and Collaboration Needed to Combat Trade-Based Money Laundering	GAO-22-447	December
Mortgage Lending: Use of Alternative Data Is Limited but Has Potential Benefits	GAO-22-104380	December
Bank Secrecy Act: Views on Proposals to Improve Banking Access for Entities Transferring Funds to High-Risk Countries	GAO-22-104792	December
Real Estate Appraisals: Most Residential Mortgages Received Appraisals, but Waiver Procedures Need to Be Better Defined	GAO-22-104472	December

Table C.3. Projects active at year-end 2021

Subject of project	Month initiated	Status
The housing finance system in the pandemic	August 2020	Closed 1/13/2022
Welfare of federal working dogs	September 2020	Open
Access to banking services	October 2020	Closed 3/7/2022
HMDA loan volume thresholds	October 2020	Open
Financial regulator privacy practices	October 2020	Closed 1/13/2022
Native American Direct Loan program	December 2020	Open
Financial regulatory oversight during COVID-19	April 2021	Open
Trafficking, online marketplaces, and virtual currencies	May 2021	Closed 2/14/2022
403(b) retirement savings plans for nonprofits and public	June 2021	Open
Consumer credit card debt	June 2021	Open
Blockchain in financial services	August 2021	Open
Monitoring and oversight of response to COVID-19 pandemic (January 2022 report)	October 2021	Closed 1/27/2022
Monitoring and oversight of response to COVID-19 pandemic (April 2022 report)	October 2021	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 2021 budget performance of the Board and Reserve Banks and on their 2022 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' 2021 budgeted, 2021 actual, and 2022 budgeted operating expenses and employment.[2]

2021 Budget Performance

In carrying out its responsibilities in 2021, the Federal Reserve System incurred $5,047.3 million in net expenses. Total System operating expenses of $6,980.3 million were offset by $1,245.0 million in revenue from priced services, claims for reimbursement, and other income. Total 2021 System operating expenses were $197.7 million, or 3.3 percent, less than the amount budgeted for 2021.

2022 Operating Expense Budget

Budgeted 2022 System operating expenses of $6,246.9 million, net of revenue and reimbursements, are $511.6 million, or 8.9 percent, higher than 2021 actual expenses. The Reserve Bank budgets comprise almost three-quarters of the System budget (figure D.1). Budgeted 2022 revenue from priced services is 4.6 percent higher than 2021 actual revenue, primarily reflecting higher volume from automated clearinghouse (ACH) services and funds transfers offset by lower volume from check and securities transfers.

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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*. Copies of that report are 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 2021 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, 2021–22
Millions of dollars, except as noted

Item	2021 budget	2021 actual	Variance 2021 actual to 2021 budget		2022 budget	Variance 2022 budget to 2021 actual	
			Amount	Percent		Amount	Percent
Board[1]	884.4	863.9	–20.5	–2.3	965.9	102.0	11.8
Office of Inspector General	35.1	33.8	–1.3	–3.7	36.0	2.2	6.5
Reserve Banks[2]	5,029.8	5,047.3	17.4	0.3	5,434.6	387.4	7.7
Currency[3]	1,136.0	1,035.3	–100.8	–8.9	1,118.3	83.0	8.0
Total System operating expenses[4]	7,085.3	6,980.3	–105.0	–1.5	7,554.8	574.5	8.2
Revenue from priced services	439.1	456.3	17.2	3.9	477.2	20.9	4.6
Claims for reimbursement[5]	710.4	786.3	75.9	10.7	829.7	43.4	5.5
Other income[6]	2.8	2.4	–0.4	–15.1	1.0	–1.4	–59.0
Revenue and claims for reimbursement[7]	1,152.3	1,245.0	92.7	8.0	1,307.9	62.9	5.1
Total System operating expenses, net of revenue and claims for reimbursement	**5,933.0**	**5,735.3**	**–197.7**	**–3.3**	**6,246.9**	**511.6**	**8.9**

Note: Here and in subsequent tables, components may not sum to totals and may not yield percentages shown because of rounding.
1 Reflects the 2021 revised operating budget approved on July 16, 2021.
2 Excludes Reserve Bank assessments by the Board of Governors for costs related to currency and the operations of the Board of Governors, Office of Inspector General, and the Consumer Financial Protection Bureau.
3 The 2021 and 2022 budgets include Bureau of Engraving and Printing (BEP) facility costs. The 2021 budget includes an additional $40.2 million that was not part of the original budget. Starting in 2022, the currency budget tracks the BEP facility projects separately as multicycle total project costs. The 2022 budget for the multicycle projects is $58.3 million.
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 2021 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 $68.3 million in 2021 and $81.0 million in 2022.
6 Fees that depository institutions pay for the settlement component of the Fedwire Securities Service transactions for Treasury securities transfers.
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.)

Trends in Expenses and Employment

From the actual 2012 amount to the budgeted 2022 amount, the total operating expenses of the Federal Reserve System have increased an average of 4.9 percent annually (figure D.2), which is the same as the 10-year growth rate between 2011 and 2021. The total rate of growth in Federal Reserve System expenses reflects the staffing increases in information technology (IT) to support large application development projects, information security efforts, end-user services, and the central computing environment. Supervision resource levels were augmented to meet requirements of the Dodd-Frank Wall Street Reform and Consumer Protection Act (Dodd-Frank Act) and to support portfolio growth (figure D.3).

Table D.2. Employment in the Federal Reserve System, 2021–22

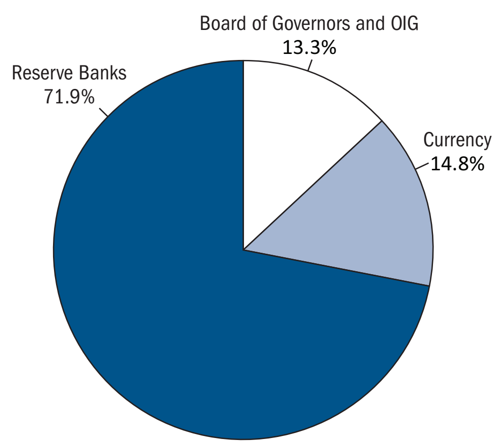
Item	2021 budget	2021 actual	Variance 2021 actual to 2021 budget		2022 budget	Variance 2022 budget to 2021 actual	
			Amount	Percent		Amount	Percent
Board	3,013	2,973	-41	-1.3	3,083	111	3.7
Office of Inspector General	136	127	-9	-6.7	133	5	4.3
Reserve Banks[1]	20,470	20,401	-69	-0.3	21,212	811	4.0
Currency	19	16	-2	-11.3	19	3	17.3
Total System employment	**23,638**	**23,517**	**-122**	**-0.5**	**24,447**	**931**	**4.0**

Note: 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.

[1] Includes employment of the Federal Reserve Information Technology (FRIT) support function and the Office of Employee Benefits (OEB).

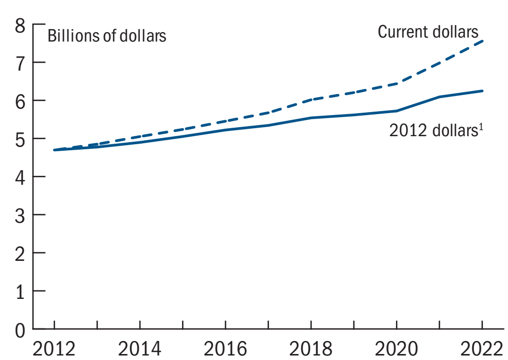
Growth in supervision expenses over the past 10 years has been driven by implementation of expanded responsibilities mandated by the Dodd-Frank Act, changes in the state member bank portfolio, building out the cybersecurity supervision program, and supporting other strategic national initiatives. However, supervision growth has moderated because of the Economic Growth, Regulatory Reform and Consumer Protection Act, and as supervisory conditions improved, efficiencies were found and resources were shifted toward higher-risk activities and emerging risks. In particular, resources were temporarily shifted from supervision to support the credit and liquidity facilities responding to the COVID-19 pandemic in 2020. Supervision expenses for 2021 reflect the

Figure D.1. Distribution of budgeted expenses of the Federal Reserve System, 2022



OIG: Office of Inspector General.

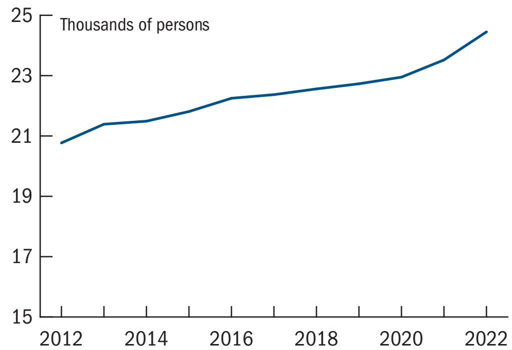
Figure D.2. Total expenses of the Federal Reserve System, 2012–22



[1] Calculated with the GDP price deflator.

Note: For 2022, budgeted. Includes expenses of the OIG.

Figure D.3. Employment in the Federal Reserve System, 2011–21



Note: For 2022, budgeted. From 2012 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.

end of this temporary support and the return of supervision staff from their work for the credit and liquidity facilities.

Expense growth in the monetary policy area during the financial crisis has been followed more recently by increased investment in financial stability monitoring, operational activities, and the dedication of additional resources to regional economic research.

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 multiyear technology initiatives to modernize processing platforms for Fedwire and automated clearinghouse (ACH).[3]

Expenses for services to financial institutions continue to increase as a result of the next-generation currency-processing program (NextGen).[4] 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.

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.

[3] 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.

[4] 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).

2022 Capital Budgets

The capital budgets for the Board and Reserve Banks total $139.0 million and $621.5 million, respectively.[5] As in previous years, the 2022 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 provide 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 2022, the recommended growth target included known changes in the run-rate of the Board's ongoing operations, the full-year impact of the budget amendment approved in 2021, long-term space plan, increases to centrally managed retirement and post-retirement benefits, strategic priorities for 2022, and the triennial Survey of Consumer Finances. 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]
- 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.

[5] The capital budget reported for the Board includes single-year capital expenditures and 2021 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).

- 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 2021 budgeted and actual expenses and its 2022 budgeted expenses by operating area; division, office, or special account; and account classification, respectively. Table D.6 summarizes the Board's 2021 budgeted and actual authorized positions and its budgeted positions for 2022. 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, 2021–22
Millions of dollars, except as noted

Item	2021 budget	2021 actual	Variance 2021 actual to 2021 budget		2022 budget	Variance 2022 budget to 2021 actual	
			Amount	Percent		Amount	Percent
Monetary policy and financial stability[1]	370.5	365.2	–5.3	–1.4	415.5	50.3	13.8
Supervision	390.5	378.8	–11.7	–3.0	420.9	42.1	11.1
Payment system and Reserve Bank oversight	75.0	72.2	–2.8	–3.7	75.9	3.7	5.1
Public engagement and community development	48.5	47.7	–0.8	–1.6	53.7	6.0	12.5
Total, Board operations	**884.4**	**863.9**	**–20.5**	**–2.3**	**965.9**	**102.0**	**11.8**
Office of Inspector General	35.1	33.8	–1.3	–3.7	36.0	2.2	6.5

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 2022 is driven by strategic priorities and employment growth. Supervision aligns with supervision and regulation within the Reserve Banks; growth in 2022 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 2022 is driven by employment growth and higher Board support and overhead allocations.

1 Includes the Survey of Consumer Finances.

2021 Budget Performance

Total expenses for Board operations were $863.9 million, which was $20.5 million, or 2.3 percent, lower than the approved 2021 budget of $884.4 million.[8]

Personnel services expenses were $4.2 million, or 0.6 percent, higher than the approved budget, driven by higher pension expenses that fluctuate with changes in actuarial assumptions and demographics, and higher accrued annual leave expenses as staff used less leave as a result of the COVID-19 pandemic. Goods and services expenses were $24.7 million, or 11.4 percent, lower than the approved budget as the COVID-19 pandemic resulted in less-than-planned travel and

8 In July 2021, the Board of Governors approved an amendment to the 2021 operating budget to address critical workload and projects. This amendment increased the operating budget from $869.5 million to $884.4 million.

Table D.4. Operating expenses of the Board of Governors, by division, office, or special account, 2021–22

Millions of dollars, except as noted

Division, office, or special account	2021 budget	2021 actual	Variance 2021 actual to 2021 budget		2022 budget	Variance 2022 budget to 2021 actual	
			Amount	Percent		Amount	Percent
Research and Statistics	93.5	94.1	0.6	0.7	100.3	6.2	6.6
International Finance	37.3	36.6	–0.7	–1.9	40.2	3.6	10.0
Monetary Affairs	42.6	41.5	–1.1	–2.6	45.8	4.4	10.5
Financial Stability	17.0	15.6	–1.4	–8.2	20.3	4.8	30.6
Supervision and Regulation	123.5	118.6	–4.8	–3.9	128.7	10.1	8.5
Consumer and Community Affairs	35.9	35.0	–0.9	–2.6	38.8	3.8	10.9
Reserve Bank Operations and Payment Systems	46.9	45.6	–1.3	–2.8	49.0	3.4	7.5
Board Members	26.2	26.0	–0.3	–1.0	27.4	1.4	5.5
Secretary	9.8	9.7	0.0	–0.5	10.4	0.7	6.8
Legal	34.5	33.1	–1.4	–4.1	36.3	3.2	9.7
Chief Operating Officer	15.1	13.5	–1.6	–10.7	15.7	2.2	16.2
Financial Management	14.6	14.4	–0.2	–1.3	15.2	0.8	5.7
Information Technology	140.0	136.2	–3.9	–2.8	148.5	12.3	9.0
Management	167.6	168.1	0.5	0.3	185.8	17.7	10.5
Centrally managed benefits[1]	47.0	58.9	11.8	25.1	55.0	-3.8	–6.5
Extraordinary items[2]	51.1	33.3	–17.8	–34.8	54.1	20.8	62.3
Savings and reallocations[3]	-20.3	–17.6	2.7	–13.2	–20.3	–2.7	15.5
Survey of Consumer Finances[4]	2.1	1.4	–0.7	–34.8	14.7	13.3	961.1
Total, Board operations	**884.4**	**863.9**	**–20.5**	**–2.3**	**965.9**	**102.0**	**11.8**
Office of Inspector General	35.1	33.8	–1.3	–3.7	36.0	2.2	6.5

1 For 2022, Special Projects and Retirement and Benefits have been 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 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.

training activities, lower utilization of contractual professional services, and lower depreciation expenses because of the shift in the substantial completion of the Martin Building renovation project.

The Board's 2021 single-year capital spending was less than budgeted by $4.4 million, or 23.7 percent, driven by lower spending on equipment purchases and life-cycle replacements and

Table D.5. Operating expenses of the Board of Governors, by account classification, 2021–22
Millions of dollars, except as noted

Account classification	2021 budget	2021 actual	Variance 2021 actual to 2021 budget		2022 budget	Variance 2022 budget to 2021 actual	
			Amount	Percent		Amount	Percent
Personnel services							
Salaries	503.9	501.8	–2.2	–0.4	535.7	33.9	6.8
Outside agency help[1]	33.9	32.6	–1.3	–3.8	38.3	5.7	17.4
Retirement/thrift plans	70.3	75.4	5.0	7.1	78.0	2.7	3.5
Employee insurance and other benefits	43.9	42.1	–1.8	–4.2	45.6	3.5	8.4
Net periodic benefits costs[2]	16.5	20.9	4.5	27.0	18.5	–2.4	–11.5
Subtotal, personnel services	**668.6**	**672.8**	**4.2**	**0.6**	**716.2**	**43.4**	**6.5**
Goods and services							
Postage and shipping	0.6	0.6	0.0	–7.1	0.3	–0.3	–51.0
Travel	9.4	3.6	–5.9	–62.0	9.2	5.6	157.0
Telecommunications	8.3	6.4	–1.9	–22.7	7.1	0.6	10.1
Printing and binding	0.7	0.5	–0.2	–28.8	0.7	0.1	24.7
Publications	0.3	0.4	0.0	11.3	0.3	0.0	–10.1
Stationery and supplies	1.0	1.0	–0.1	–7.1	1.1	0.1	14.1
Software	29.8	27.7	–2.1	–7.2	35.6	8.0	28.8
Furniture and equipment (F&E)	6.9	6.6	–0.3	–4.9	10.0	3.4	51.9
Rentals	38.0	37.8	–0.1	–0.4	37.5	–0.3	–0.8
Data, news, and research	18.5	18.3	–0.3	–1.4	35.7	17.4	95.2
Utilities	1.7	2.3	0.6	37.3	1.9	–0.4	–15.7
Repairs and alterations—building	4.7	4.0	–0.6	–13.3	4.9	0.9	21.3
Repairs and maintenance—F&E	5.0	4.4	–0.6	–12.4	5.5	1.0	23.7
Contractual professional services	43.5	37.2	–6.3	–14.5	49.2	12.0	32.2
Interest	0.0	0.0	0.0	–62.8	0.0	0.0	38.7
Training and dues	4.9	2.9	–2.0	–41.6	6.0	3.1	109.5
Subsidies and contributions	3.2	3.1	–0.1	–3.3	3.2	0.2	5.1
All other	4.0	5.1	1.1	28.1	5.1	–0.1	–1.0
Depreciation/amortization	56.2	50.3	–5.9	–10.5	59.9	9.6	19.1
Support and overhead allocations[3]	–16.9	–17.6	–0.7	3.9	–19.1	–1.5	8.4
IT income[4]	–0.3	0.0	0.3	–100.0	0.0	0.0	0.0
Income	–3.9	–3.5	0.4	–10.7	–4.4	–1.0	28.3
Subtotal, goods and services	**215.8**	**191.1**	**–24.7**	**–11.4**	**249.7**	**58.6**	**30.7**
Total, Board operations	**884.4**	**863.9**	**–20.5**	**–2.3**	**965.9**	**102.0**	**11.8**
Office of Inspector General							
Personnel services	31.2	29.1	–2.1	–6.7	31.2	2.1	7.4
Goods and services[5]	18.9	18.4	–0.5	–2.9	20.1	1.8	9.7
Subtotal, excluding operating income	**50.1**	**47.5**	**–2.6**	**–5.3**	**51.4**	**3.9**	**8.3**
Operating income[6]	–15.0	–13.7	1.4	–9.0	–15.4	–1.7	12.7
Total, OIG operations	**35.1**	**33.8**	**–1.3**	**–3.7**	**36.0**	**2.2**	**6.5**

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 other earned income collected from the Currency budget.
5 Includes Board support and overhead allocations to the OIG.
6 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, 2021–22

Division, office, or special account	2021 budget	2021 actual	Variance 2021 actual to 2021 budget		2022 budget	Variance 2022 budget to 2021 actual	
			Amount	Percent		Amount	Percent
Research and Statistics	364	364	0	0.0	364	0	0.0
International Finance	166	168	2	1.2	168	0	0.0
Monetary Affairs	186	186	0	0.0	186	0	0.0
Financial Stability	80	80	0	0.0	80	0	0.0
Supervision and Regulation	497	497	0	0.0	497	0	0.0
Consumer and Community Affairs	138	138	0	0.0	138	0	0.0
Reserve Bank Operations and Payment Systems	187	187	0	0.0	187	0	0.0
Board Members	121	123	2	1.7	123	0	0.0
Secretary	54	55	1	1.9	55	0	0.0
Legal	132	132	0	0.0	132	0	0.0
Chief Operating Officer	65	65	0	0.0	65	0	0.0
Financial Management	72	72	0	0.0	72	0	0.0
Information Technology	418	418	0	0.0	418	0	0.0
Management	485	485	0	0.0	485	0	0.0
Extraordinary items[1]	14	9	–5	–35.7	9	0	0.0
Total, Board operations	**2,979**	**2,979**	**0**	**0.0**	**2,979**	**0**	**0.0**
Office of Inspector General	140	140	0	0.0	142	2	1.4

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.

supply chain delays that shifted purchases into 2022. Multiyear capital projects spending in 2021 was less than budgeted by $17.2 million, or 10.6 percent, due to delays in building improvement projects. Table D.7 summarizes the Board's budgeted and actual capital expenditures for 2021 and 2022.

2022 Operating Expense Budget

The 2022 budget for Board operations is $965.9 million, which is $102.0 million, or 11.8 percent, higher than 2021 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.

In addition, the 2022 budget includes growth driven by strategic priorities, employment growth expected to occur in 2022; funding for the Board's compensation and benefit programs; ongoing

Table D.7. Capital expenditures of the Board of Governors, by capital type, 2021–22

Item	2021 budget	2021 actual	Variance 2021 actual to 2021 budget		2022 budget	Variance 2022 budget to 2021 actual	
			Amount	Percent		Amount	Percent
Board							
Single-year capital expenditures	18.4	14.1	–4.4	–23.7	20.0	6.0	42.5
Multiyear capital expenditures	162.3	145.2	–17.2	–10.6	118.9	–26.2	–18.1
Total capital expenditures	**180.7**	**159.2**	**–21.5**	**–11.9**	**139.0**	**–20.3**	**–12.7**
Office of Inspector General							
Single-year capital expenditures	0.1	0.0	–0.1	–103.4	0.0	0.0	–100.0
Multiyear capital expenditures	0.0	0.0	0.0	n/a	0.0	0.0	n/a
Total capital expenditures	**0.1**	**0.0**	**–0.1**	**–103.4**	**0.0**	**0.0**	**–100.0**
Board and OIG total capital expenditures	**180.8**	**159.2**	**–21.6**	**–11.9**	**139.0**	**–20.3**	**–12.7**

Note: The amount reported for the multiyear capital budget represents the expected expenditure for the budget year.
n/a Not applicable.

facilities and automation projects; and a step-up approach to travel and training expenses, which were significantly impacted by the COVID-19 pandemic in 2021.

Authorized positions for 2022 are 2,979, consistent with the 2021 authorized number.[9]

2022 Capital Budgets

The Board's 2022 single-year capital budget totals $20.0 million, which is $6.0 million, or 42.5 percent, higher than 2021 actual capital expenditures. The increase is driven by supply chain delays that shifted data center infrastructure purchases from 2021 to 2022. The proposed budget also includes continued investments in automation projects and routine life-cycle replacements of equipment and building components.

The Board's multiyear capital budget is driven by facilities projects. Expected capital expenditures in 2022 total $118.9 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 2021 and 2022.

[9] In July 2021, the Board of Governors approved an amendment to the 2021 operating budget to address critical workload and projects. This amendment increased the authorized position count from 2,883 to 2,979.

Office of Inspector General

The budget for the Board's OIG is grounded in the goals established in its strategic plan.[10] The goals are to deliver results that promote agency excellence; promote a diverse, skilled, and 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.

2021 Budget Performance

Expenses for OIG operations, excluding operating income, were $47.5 million, which was $2.6 million, or 5.3 percent, lower than the approved 2021 budget of $50.1 million. Personnel services expenses were lower than the approved budget amount by $2.1 million, or 6.7 percent, driven by higher-than-expected vacancy rates.

Goods and services expenses were $0.5 million, or 2.9 percent, lower than the approved budget amount, driven by the effect of the COVID-19 pandemic on travel, training, software, and contractual professional services spending. Operating income was $1.4 million, or 9.0 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 $33.8 million in 2021. The OIG's single-year capital spending was de minimis in 2021.

2022 Operating Expense Budget

The 2022 budget for OIG operations, excluding operating income, is $51.4 million, which is $3.9 million, or 8.3 percent, higher than 2021 actual expenses. This increase is driven by expected employment growth in 2022, funding for the Board's compensation and benefit programs, and escalations for goods and services. Employment growth is expected to cause accompanying increases in support and overhead expenses. Including operating income, the 2022 budget for OIG operations is $36.0 million. There were no budgeted amounts for the OIG's single-year and multiyear capital expenditures for 2022.

The OIG has 142 authorized positions for 2022, an increase of 2 over the authorized number for 2021. The increase in authorized positions is driven by anticipated oversight work associated with

[10] The plan is located at https://oig.federalreserve.gov/strategic-plan.htm.

the Board's COVID-19 pandemic response and the continually increasing importance of and risk associated with cybersecurity and IT operations.

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 in the context of 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' 2021 budgeted and actual expenses and 2022 budgeted expenses by Reserve Bank, functional area, and account classification.[11] Table D.11 shows the Reserve Banks' budgeted and actual employment for 2021 and budgeted employment for 2022. In addition, table D.12 shows the Reserve Banks' budgeted and actual capital expenditures for 2021 and budgeted capital for 2022.

Table D.8. Operating expenses of the Federal Reserve Banks, by District, 2021–22
Millions of dollars, except as noted

District	2021 budget	2021 actual	Variance 2021 actual to 2021 budget		2022 budget	Variance 2022 budget to 2021 actual	
			Amount	Percent		Amount	Percent
Boston	312.2	330.7	18.5	5.9	389.2	58.5	17.7
New York	1122.7	1142.3	19.6	1.7	1245.2	102.8	9.0
Philadelphia	210.7	217.6	6.8	3.2	231.9	14.4	6.6
Cleveland	236.4	257.3	20.9	8.9	317.8	60.5	23.5
Richmond	546.2	452.4	−93.7	−17.2	369.3	−83.1	−18.4
Atlanta	425.1	428.8	3.6	0.9	466.9	38.2	8.9
Chicago	453.5	455.8	2.3	0.5	489.2	33.4	7.3
St. Louis	446.8	437.2	−9.6	−2.1	487.4	50.1	11.5
Minneapolis	193.2	201.6	8.4	4.4	223.4	21.7	10.8
Kansas City	381.9	384.5	2.6	0.7	422.8	38.2	9.9
Dallas	258.2	267.4	9.2	3.6	290.8	23.4	8.8
San Francisco	443.0	471.6	28.6	6.5	500.8	29.1	6.2
Total Reserve Bank operating expenses	**5029.8**	**5047.3**	**17.4**	**0.3**	**5434.6**	**387.4**	**7.7**

Note: Includes expenses of the FRIT support function and the OEB and reflects all redistributions for support and allocation for overhead. 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.

[11] In 2021, the Federal Reserve implemented a new cost accounting framework in parallel with a new Enterprise Resource Planning application as part of a broader modernization effort. 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").

Table D.9. Operating expenses of the Federal Reserve Banks, by operating area, 2021–22
Millions of dollars, except as noted

Operating area	2021 budget	2021 actual	Variance 2021 actual to 2021 budget		2022 budget	Variance 2022 budget to 2021 actual	
			Amount	Percent		Amount	Percent
Monetary and economic policy	845.4	851.7	6.3	0.7	902.7	51.0	6.0
Services to the U.S. Treasury and other government agencies	657.8	626.5	−31.3	−4.8	728.4	101.9	16.3
Services to financial institutions and the public[1]	1,384.6	1,404.2	19.6	1.4	1,457.3	53.1	3.8
Supervision and regulation	1,551.2	1,574.7	23.6	1.5	1,670.7	96.0	6.1
Fee-based services to financial institutions[2]	590.9	590.2	−0.7	−0.1	675.6	85.4	14.5
Total Reserve Bank operating expenses[3]	5029.8	5047.3	17.4	0.3	5434.6	387.4	7.7

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, 2021–22
Millions of dollars, except as noted

Account classification	2021 budget	2021 actual	Variance 2021 actual to 2021 budget		2022 budget	Variance 2022 budget to 2021 actual	
			Amount	Percent		Amount	Percent
Salaries and other benefits[1]	3,800.4	3,776.4	−24.0	−0.6	3,920.1	143.6	3.8
Building	346.9	302.8	−44.1	−12.7	186.4	−116.4	−38.5
Software costs	342.0	357.1	15.1	4.4	416.8	59.7	16.7
Equipment	234.8	231.7	−3.1	−1.3	251.5	19.8	8.6
Recoveries[2]	−381.9	−304.6	77.4	−20.3	−124.7	179.8	−59.0
Expenses capitalized	−137.5	−111.8	25.6	−18.6	−137.8	−26.0	23.3
All other[3]	825.1	791.5	−33.5	−4.1	922.5	130.9	16.5
Total Reserve Bank operating expenses	**5029.8**	**5047.3**	**17.5**	**0.3**	**5434.6**	**387.4**	**7.7**

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 tenant rent and cash access fee recoveries for 2021 budget and Q1–Q2 of 2021 actuals. Tenant rent is included in building for Q3–Q4 actuals and 2022 going forward. Cash access fees are not included in Q3–Q4 of 2021 actuals and 2022 going forward.
3 Includes fees, materials and supplies, travel, communications, and shipping.

Table D.11. Employment at the Federal Reserve Banks, by District, and at FRIT and OEB, 2021–22							
District	2021 budget	2021 actual	Variance 2021 actual to 2021 budget		2022 budget	Variance 2022 budget to 2021 actual	
			Amount	Percent		Amount	Percent
Boston	1,184	1,234	50	4.2	1,323	89	7.2
New York	3,189	3,015	−174	−5.5	3,146	131	4.3
Philadelphia	932	902	−30	−3.2	916	14	1.6
Cleveland	1,042	1,172	130	12.5	1,254	82	7.0
Richmond	1,502	1,517	15	1.0	1,545	28	1.8
Atlanta	1,663	1,697	34	2.0	1,726	29	1.7
Chicago	1,708	1,636	−72	−4.2	1,709	73	4.5
St. Louis	1,432	1,442	10	0.7	1,394	−48	−3.3
Minneapolis	1,113	1,085	−28	−2.5	1,145	60	5.5
Kansas City	2,075	2,075	0	0.0	2,146	71	3.4
Dallas	1,331	1,277	−54	−4.1	1,363	86	6.7
San Francisco	1,790	1,823	33	1.8	1,880	57	3.1
Total, all Districts	**18,961**	**18,875**	**−86**	**−0.5**	**19,547**	**672**	**3.6**
Federal Reserve Information Technology	1,443	1,462	19	1.3	1,600	138	9.4
Office of Employee Benefits	66	64	−2	−3.0	65	1	1.6
Total, System	**20,470**	**20,401**	**−69**	**−0.3**	**21,212**	**811**	**4.0**

2021 Budget Performance

Total 2021 operating expenses for the Reserve Banks were $5,047.3 million, which is $17.4 million, or 0.3 percent, more than the approved 2021 budget of $5029.8 million. The expense overrun is largely driven by additional investments to support the Federal Reserve's commitment to modernize the nation's payment system and establish a safe and efficient foundation for the future via the FedNow Service initiative. These overruns are partially offset by less than budgeted expenses in travel and meetings because of the COVID-19 pandemic, and higher than anticipated turnover. Actual headcount was 20,401, an underrun of 69 headcount, or 0.3 percent, from 2021 budgeted staffing levels.

The Reserve Banks' 2021 capital expenditures were less than budgeted by $201.1 million, or 33.6 percent, primarily driven by plan changes because of the COVID-19 pandemic, including timing and scope for building-related initiatives, and project delays because of supply chain issues.

Table D.12. Capital expenditures of the Federal Reserve Banks, by District, and of FRIT and OEB, 2021–22

Millions of dollars, except as noted

District	2021 budget	2021 actual	Variance 2021 actual to 2021 budget		2022 budget	Variance 2022 budget to 2021 actual	
			Amount	Percent		Amount	Percent
Boston	85.3	30.6	–54.6	–64.1	56.2	25.5	83.2
New York	78.8	53.8	–25.0	–31.7	70.1	16.2	30.2
Philadelphia	54.8	38.7	–16.1	–29.4	24.2	–14.5	–37.4
Cleveland	28.0	23.7	–4.3	–15.4	41.4	17.7	74.7
Richmond	17.7	8.9	–8.9	–50.1	18.6	9.7	109.7
Atlanta	34.2	13.3	–20.9	–61.1	57.2	43.8	329.3
Chicago	32.6	25.4	–7.1	–21.9	54.2	28.8	113.3
St. Louis	19.4	9.2	–10.5	–54.2	22.3	13.4	151.5
Minneapolis	25.6	27.5	1.9	7.4	20.3	–7.2	–26.0
Kansas City	35.9	29.5	–6.4	–17.9	51.0	21.6	73.1
Dallas	26.8	21.3	–5.5	–20.4	31.6	10.3	48.1
San Francisco	82.8	52.9	–29.9	–36.1	91.8	39.0	73.7
Total, all Districts	**521.9**	**334.5**	**–187.4**	**–35.9**	**539.0**	**204.4**	**61.1**
Federal Reserve Information Technology	76.8	63.1	–13.7	–17.8	82.4	19.3	30.6
Office of Employee Benefits	0.2	0.2	0.0	–19.1	0.2	0.0	–7.3
Total	**598.9**	**397.8**	**–201.1**	**–33.6**	**621.5**	**223.8**	**56.3**

2022 Operating Expense Budget

The 2022 operating budgets of the Reserve Banks total $5,434.6 million, which is $387.4 million, or 7.7 percent, higher than 2021 actual expenses.[12] Growth in monetary policy reflects increased resources dedicated to regional economic research. The increase in Treasury Services is primarily attributable to expanded efforts to modernize business processes and applications for

[12] On December 13, 2021, the Board conditionally approved the 2022 Reserve Bank operating budgets totaling $5,432.1 million. Conditional approval was necessary because the System was still in the process of implementing the new Enterprise Resource Planning tool and new cost accounting framework. The refinement of costing and budgetary estimates arising from full implementation of the planning system resulted in a final total of $5,434.6 million, $2.6 million more than reported in December but well under the material revision threshold of 1 percent that would require additional Board action. Consequently, the director of the Division of Reserve Bank Operations and Payment Systems approved the revised 2022 Reserve Bank operating budgets.

Prior to the conditional approval of the 2022 operating expenses, the U.S. Department of the Treasury's Bureau of the Fiscal Service (Fiscal Service) had not yet finalized the approved level of funding for fiscal services provided by the Reserve Banks included in the Reserve Bank budgets. Subsequently, in March 2022, Fiscal Service provided their final authorization for the 2022 budget. The actual level of Reserve Bank spending for fiscal services is dependent on the Treasury's approval of funding and may vary from the budgeted amounts reflected in this report. Additional information is available at https://www.federalreserve.gov/foia/budgets.htm.

In addition, in consultation with the chair of the Committee on Federal Reserve Bank Affairs, the director of the Division of Reserve Bank Operations and Payment Systems designated $88.6 million of the 2022 operating expense budget associated with selected investments in the Treasury for conditional approval.

federal payments and electronic tax collection. Additionally, increases in cash expenses are driven by the second phase of NextGen. Supervision expenses are increasing primarily because of growth in the supervisory portfolio. Increases in fee-based services reflect investments in the FedNow Service.

Total 2022 budgeted employment for the Reserve Banks, Federal Reserve Information Technology (FRIT), and the Office of Employee Benefits (OEB) is 21,212 headcount, an increase of 811 headcount, or 4.0 percent, from 2021 actual employment levels. A key driver of this increase is IT resources, largely to support Reserve Bank and Treasury-related cloud architecture initiatives and configurations. Other primary sources of growth are to support the FedNow Service; efforts to enable national support functions in procurement, finance, and human resource management; initiatives to support change management and enterprise strategy; and to enhance product offerings and ensure the security and resiliency of the FedLine Solutions.[13]

Reserve Bank officer and staff personnel expenses for 2022 total $4,020.5 million, an increase of $244.1 million, or 6.5 percent, from 2021 actual expenses. The increase reflects expenses associated with additional staff and budgeted salary administration adjustments.[14]

The 2022 Reserve Bank budgets include a salary administration program for eligible officers, senior professionals, and staff totaling $116.8 million and a variable pay program totaling $255.3 million.

2022 Capital Budgets

The 2022 capital budgets for the Reserve Banks, FRIT, and OEB total $621.5 million.[15] The increase in the 2022 capital budget is $223.8 million, or 56.3 percent, greater than the 2021 actual levels of $397.8 million, largely reflecting ongoing multiyear IT and building strategic initiatives, some of which were paused in 2021 because of the COVID-19 pandemic. Initiatives in the 2022 capital budget support major workspace renovations, address aging building infrastructure in several Reserve Banks, improve IT infrastructure, and provide application upgrades and releases.

Capital Expenditures Designated for Conditional Approval

The BAC chair designated projects with an aggregate cost of $81.2 million in 2022 for conditional approval, requiring additional review and approval by the director of the Board's Division of Reserve

[13] Enhancements to the FedLine Solutions include a multiyear transformational effort focused on evolving the FedLine network, authentication, and hosting infrastructure to meet customer, industry, and Federal Reserve System needs.

[14] The salary administration program includes a budgeted pool for merit increases, equity adjustments, and promotions.

[15] The Board delegated the approval of the resources for services provided to the Treasury to the director of the Division of Reserve Bank Operations and Payment Systems pending final authorization from the Bureau of the Fiscal Service. The 2022 capital budget, including those capital expenditures designated for conditional approval, reflect the final authorization from Fiscal Service.

Bank Operations and Payment Systems before the funds are committed.[16] The expenditures designated for conditional approval include a large-scale building project, NextGen, and a cash infrastructure remodel. Technology projects include investments for FedNow; an initiative to streamline finance, procurement, and controller processes in the Federal Reserve Bank of New York; 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 $1,167.8 million for 2022 and future years, of which the single-year 2022 budgeted expenditures are $443.8 million. This category includes mechanical and electrical infrastructure upgrades and office space renovations. IT projects include ongoing IT infrastructure investments, initiatives that enable better access to data and enhance cybersecurity and cyber resiliency, and applications to support fee-based services, Treasury, supervision, and cash.

Capital initiatives that are individually less than $1 million are budgeted at an aggregate amount of $96.5 million for 2022 and include building maintenance expenditures, scheduled software and equipment upgrades, and equipment and furniture replacements.

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

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[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.

[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.

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 facility projects. 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.
- The BAC chair submits the proposed currency budget to Board members for review and final action.

2021 Budget Performance

The Board's 2021 actual single-cycle operating expenses for new currency were $950.4 million, which was $95.9 million, or 9.2 percent, below the budgeted amount for 2021. The underrun is primarily due to lower than planned production of notes from the BEP. Additional underruns are due to fewer shipments of notes from the BEP to Reserve Banks and delays in contracted research and development support for banknote development.

BEP Single-Cycle Operating Costs

BEP single-cycle operating costs were $894.1 million, which was $86.3 million, or 8.8 percent, below the budgeted amount for 2021. The budget underrun is primarily attributable to an underrun in variable printing costs. The budget was based on the delivery of 8.2 billion notes, which was the mid-range of estimated volume, and the most likely scenario, of the 2021 print order range of between 7.6 and 9.6 billion notes. However, the BEP delivered 6.8 billion notes during 2021. The

[18] The Board delivers the annual print order to the BEP director in August of each year, and copies are available on the Board's website at https://www.federalreserve.gov/paymentsystems/coin_currency_orders.htm.

lower-than-planned deliveries were a result of delays to note production because of COVID-19 shutdowns at the BEP, weather and adverse event shutdowns, and a complex denominational mix.[19]

BEP Multicycle Project Operating Costs

The currency budget includes funds for the BEP's Fort Worth facility expansion and Washington, D.C., replacement facility.[20] The expanded Fort Worth facility will support additional note production needs, and that expansion project is currently approved for a total project budget of $282.8 million. The new Washington, D.C., replacement facility will replace the existing 100-year-old Washington, D.C., facility, which will enable the BEP to meet modern production requirements.[21]

The 2021 expenses for facility projects were $4.9 million less than budgeted. The Board and BEP agreed to pause the Washington, D.C., replacement facility's design and engineering work to implement better governance, program management, and financial control processes to address the risks of such a large and complex project. However, reimbursements for environmental impact analysis, site demolition, and site preparation expenses continued.

Board Single-Cycle Operating Costs

Board costs were $9.5 million, or 14.5 percent, under the budgeted amount for 2021. The underrun is attributable to lower costs for currency transportation and banknote development. The currency issuance underrun is due to fewer shipments of notes from the BEP to Reserve Banks than expected, which resulted in decreased BEP shipment costs. This was partially offset by the increased shipments between Reserve Banks needed to rebalance inventories across the System. The banknote development underrun is primarily the result of lower membership fees, contract terminations for banknote studies, and delays for several projects that were affected by the pandemic.

2022 Budget

Table D.13 summarizes the 2022 single-cycle currency operating budget of $1,060.0 million.[22] The 2022 single-cycle operating budget represents an increase of $109.6 million, or 11.5 percent,

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[19] The 2021 print order included a larger ratio of higher denomination notes, which are more challenging and costly to produce than lower denomination notes.

[20] The BEP facility projects were previously approved on a single-cycle operating budget basis. Funds that were not expended were not carried over to the next calendar year. In 2021, the Board approved shifting the BEP facility projects to a multiyear total cost approval to simplify the budgeting process, ensure that the BEP has sufficient cash to pay obligations that span multiple budget years, provide regular reporting of lifetime project costs, and provide flexibility to manage inherent project changes.

[21] The rationale for the new facility is laid out in a Government Accountability Office (GAO) report published in April 2018; see BEP, *Options for and Costs of a Future Currency Production Facility* (Washington: GAO, April 2018), https://www.gao.gov/products/gao-18-338.

[22] For 2022, the Board approved a $25,000 multicycle capital budget for adversarial analysis laboratory equipment.

from 2021 actual expenses. BEP costs associated with the printing of Federal Reserve notes are 93.3 percent of the operating budget. Board expenses for currency issuance, banknote development, and currency education comprise the remaining 6.7 percent of the operating budget. Table D.14 provides an overview of the multicycle project budget that funds the BEP's facility projects.

Table D.13. Federal Reserve single-cycle currency budget, 2021–22
Millions of dollars, except as noted

Item	2021 budget	2021 actual	Variance 2021 actual to 2021 budget		2022 budget	Variance 2022 budget to 2021 actual	
			Amount	Percent		Amount	Percent
BEP costs	**980.4**	**894.1**	**−86.3**	**−8.8**	**989.2**	**95.1**	**10.6**
Printing Federal Reserve notes	**975.4**	**889.4**	**−86.0**	**−8.8**	**983.8**	**94.4**	**10.6**
BEP fixed printing costs	518.6	518.0	−0.6	−0.1	612.5	94.5	18.2
BEP variable printing costs	456.8	371.4	−85.4	−18.7	371.3	−0.1	0.0
BEP support costs	**5.0**	**4.7**	**−0.3**	**−5.9**	**5.4**	**0.7**	**15.4**
Currency reader	1.1	0.7	−0.3	−31.9	1.0	0.2	33.8
Destruction and compliance	3.9	3.9	0.0	1.2	4.4	0.5	12.0
Board expenses	**65.8**	**56.1**	**−9.5**	**−14.5**	**70.8**	**14.5**	**25.8**
Currency issuance[1]	33.6	29.1	−4.5	−13.5	37.6	8.5	29.2
Banknote development[2]	26.4	21.8	−4.6	−17.3	27.1	5.3	24.2
Currency education[2]	5.9	5.4	−0.5	−7.7	6.1	0.7	13.8
Operating budget	**1,046.2**	**950.4**	**−95.9**	**−9.2**	**1,060.0**	**109.6**	**11.5**

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.

Table D.14. Multicycle projects in the currency budget, 2021–22
Millions of dollars, except as noted

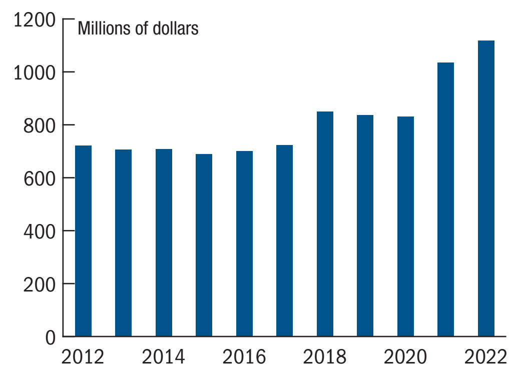
Item	2020 and prior actual	2021 budget	2021 actual	2022 budget	Project lifetime budget
BEP facility funding					
Fort Worth facility expansion	160.0	40.2	40.2	52.8	282.8
Washington, D.C., replacement facility	0.7	49.6	44.7	5.5	TBD[1]
Total	**160.7**	**89.8**	**84.9**	**58.3**	**282.8**

1 TBD To be determined.

BEP Single-Cycle Operating Costs

The proposed 2022 budget to fund the BEP expenses associated with the printing of Federal Reserve notes is $989.2 million, which is $95.1 million, or 10.6 percent, greater than 2021 actual expenses.

Figure D.4. Federal Reserve costs for currency, 2012–22



Note: For 2022, budgeted.

The proposed budget for fixed printing costs is $612.5 million, which is $94.5 million, or 18.2 percent, greater than 2021 actual expenses. The increase is primarily attributable to capital purchases aligned with the long-term capital equipment plan and IT upgrades. There are also increased research and development expenses to support the new security features for the next family of notes.

Variable printing costs for 2022 align with 2021 actual expenses. Although the BEP expects to deliver more notes in 2022 than in 2021, 7.2 billion notes compared with 6.8 billion notes, the accompanying variable printing costs remain stable because economies of scale are realized with increased deliveries.

BEP Multicycle Project Operating Costs

The multicycle project budget includes $52.8 million in 2022 for the Fort Worth facility expansion to expand the final production area and administrative office space. The BEP plans for this project to be 85 to 90 percent complete by the end of 2022.

Board approval for the Washington, D.C., replacement facility's project lifetime budget will be sought when the BEP's Project Management Office and U.S. Army Corps of Engineers have finished the work underway to implement the prerequisite governance, program management, and financial control processes needed for such a large and complex project. The current total project estimate is $1,988.1 million. The multicycle project budget includes $5.5 million in 2022 funds for expenses related to environmental impact analysis, site demolition, and site preparation.

Board Single-Cycle Operating Costs

Board costs are estimated to be $70.8 million, which is $14.5 million, or 25.8 percent, more than 2021 actual expenses. The increase is primarily driven by currency issuance and banknote development costs.

The currency issuance budget increases are primarily attributable to increased BEP and intra-System shipment costs to transport the increased note deliveries, rebalance banknote inventories across the System, and fund alternative transportation methods.[23] Budget increases also include funds for an additional position and contracts to support upcoming changes to the USCP and the Board's strategic priorities.

The banknote development budget increases include membership fee increases and contract services for additional development and testing activities for the newly selected security features. Beginning in 2022, the Board will conduct studies to gather public perception data to support banknote development and receive advisory support for redesign efforts. Contract resources will also provide support on financial management, construction oversight, and program governance for the Washington, D.C., replacement facility.

In 2022, currency education will continue to broaden its domestic, international, and stakeholder education outreach, and improve and maintain the currency website and its infrastructure. The additional funds are attributable to contract price increases for website services and personnel costs as the team fills its vacancies.

The currency issuance, banknote development, and currency education budget categories also include personnel, travel, training, and support and overhead costs.[24]

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[23] Alternative transportation methods include chartered air service, which is more expensive than traditional shipment options but provides flexibility and resiliency.

[24] 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 2021. Policy actions were implemented through (1) rules and regulations, (2) policy statements and other actions, and (3) discount rates for depository institutions. 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 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 D (Reserve Requirements of Depository Institutions)

Effective July 29, 2021. On May 28, 2021, the Board approved a final rule (Docket No. R-1737) to eliminate references to an interest on required reserves (IORR) rate and an interest on excess reserves (IOER) rate and replace them with a single interest on reserve balances (IORB) rate.[1] The final rule also simplified the formula used to calculate the amount of interest paid on balances maintained by or on behalf of eligible institutions in master accounts at Federal Reserve Banks and made other minor conforming amendments. (Note: On July 28, 2021, the Board established the IORB rate, effective July 29, 2021, at 0.15 percent (the level of the IORR and IOER rates in effect prior to the Board's action). See "Interest on Reserves" for Board votes on interest on reserves in 2021.)

Voting for this action: Chair Powell, Vice Chair Clarida, Vice Chair for Supervision Quarles, and Governors Brainard, Bowman, and Waller.

Regulation I (Federal Reserve Bank Capital Stock)

Effective February 14, 2022. On December 21, 2021, the Board approved a final rule (Docket No. R-1745) to streamline reporting requirements for member banks related to their subscriptions

[1] See *Federal Register* notice at https://www.govinfo.gov/content/pkg/FR-2021-06-04/html/2021-11758.htm.

to Federal Reserve Bank capital stock.[2] In particular, the final rule reduces the quarterly reporting burden for member banks by automating the application process for adjusting their subscriptions to Federal Reserve Bank capital stock, except in the context of mergers.

Voting for this action: Chair Powell, Vice Chair Clarida, and Governors Quarles, Brainard, Bowman, and Waller.[3]

Regulation O (Loans to Executive Officers, Directors, and Principal Shareholders of Member Banks)

Effective February 17, 2021. On February 5, 2021, the Board approved an interim final rule and request for comment (Docket No. R-1740) to extend, through March 31, 2021, an exception for Paycheck Protection Program (PPP) loans from the requirements of section 22(h) of the Federal Reserve Act (FRA) and certain provisions of Regulation O.[4] These requirements limit the types and quantity of loans that certain bank directors, shareholders, officers, and businesses owned by these persons can receive from their related banks. In April and July 2020, the Board issued interim final rules to provide exceptions from these requirements to certain loans that were guaranteed under the Small Business Administration's PPP. The interim final rule approved on February 5, 2021, extended this relief to PPP loans, including "second draw" PPP loans, made through March 31, 2021.

Voting for this action: Chair Powell, Vice Chair Clarida, Vice Chair for Supervision Quarles, and Governors Brainard, Bowman, and Waller.

Effective May 21, 2021. On May 7, 2021, the Board approved an interim final rule and request for comment (Docket No. R-1740) to extend the exception for PPP loans from the requirements of section 22(h) of the FRA and certain provisions of Regulation O.[5] The current interim final rule extended this relief to PPP loans, including "second draw" PPP loans, made during the period permitted by statute, but in no case later than March 31, 2022.

Voting for this action: Chair Powell, Vice Chair Clarida, Vice Chair for Supervision Quarles, and Governors Brainard, Bowman, and Waller.

Regulation Q (Capital Adequacy of Bank Holding Companies, Savings and Loan Holding Companies, and State Member Banks)

Effective March 22, 2021. On March 8, 2021, the Board approved an interim final rule and request for comment (Docket No. R-1741), issued jointly with the Office of the Comptroller of the

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[2] See *Federal Register* notice at https://www.govinfo.gov/content/pkg/FR-2022-01-13/html/2022-00503.htm.

[3] Randal Quarles's term as Vice Chair for Supervision ended on October 13, 2021. He resigned as a member of the Board of Governors, effective December 25, 2021.

[4] See *Federal Register* notice at https://www.govinfo.gov/content/pkg/FR-2021-02-17/html/2021-02966.htm.

[5] See *Federal Register* notice at https://www.govinfo.gov/content/pkg/FR-2021-05-21/html/2021-10711.htm.

Currency (OCC) and Federal Deposit Insurance Corporation (FDIC) (together with the Board, "the agencies"), to support and facilitate the Department of the Treasury's implementation of the Emergency Capital Investment Program (ECIP).[6] Congress established the ECIP to support the efforts of low- and moderate-income community financial institutions to provide loans, grants, and forbearance to small businesses, minority-owned businesses, and consumers, especially in low-income and underserved communities. Under the program, Treasury purchases preferred stock or subordinated debt from qualifying minority depository institutions and community development financial institutions. The interim final rule permits the ECIP-issued preferred stock or ECIP-issued subordinated debt to qualify as additional tier 1 capital or tier 2 capital, respectively, under the agencies' capital regulation.

Voting for this action: Chair Powell, Vice Chair Clarida, Vice Chair for Supervision Quarles, and Governors Brainard, Bowman, and Waller.

Regulations Q (Capital Adequacy of Bank Holding Companies, Savings and Loan Holding Companies, and State Member Banks), Y (Bank Holding Companies and Change in Bank Control), LL (Savings and Loan Holding Companies), and YY (Enhanced Prudential Standards)

Effective April 5, 2021. On January 16, 2021, the Board approved a final rule (Docket No. R-1724) updating its capital planning requirements to be consistent with other recently modified Board rules.[7] In October 2019, the Board finalized a risk-based prudential framework for large bank holding companies and U.S. intermediate holding companies of foreign banking organizations. The final rule modifies the capital planning, regulatory reporting, and stress capital buffer (SCB) requirements for firms in the lowest risk category under this updated framework. In particular, these firms will be subject to a two-year supervisory stress test cycle and will not be subject to company-run stress tests. In addition, the final rule applies capital planning requirements to large savings and loan holding companies that are not predominantly engaged in insurance or commercial activities.

Voting for this action: Chair Powell, Vice Chair Clarida, Vice Chair for Supervision Quarles, and Governors Brainard, Bowman, and Waller.

Regulation Y (Bank Holding Companies and Change in Bank Control)

Effective April 1, 2022 (compliance date May 1, 2022). On November 16, 2021, the Board approved a final rule (Docket No. R-1736), issued jointly with the OCC and FDIC, to improve information sharing about cyber incidents that may affect the U.S. banking system.[8] Under the Computer-Security Incident Notification Requirements for Banking Organizations and Their Bank

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[6] See *Federal Register* notice at https://www.govinfo.gov/content/pkg/FR-2021-03-22/html/2021-05443.htm.
[7] See *Federal Register* notice at https://www.govinfo.gov/content/pkg/FR-2021-02-03/html/2021-02182.htm.
[8] See *Federal Register* notice at https://www.govinfo.gov/content/pkg/FR-2021-11-23/html/2021-25510.htm.

Service Providers (subpart N of Regulation Y), a banking organization is required to notify its primary federal regulator of any "computer-security incident" that rises to the level of a "notification incident" as soon as possible, and no later than 36 hours after the banking organization determines that a notification incident has occurred. The final rule also requires a bank service provider to notify affected banking-organization customers as soon as possible when the provider determines that it has experienced a computer-security incident that has materially affected, or is reasonably likely to materially affect, banking organization customers for four or more hours.

Voting for this action: Chair Powell, Vice Chair Clarida, and Governors Quarles, Brainard, Bowman, and Waller.

Regulation EE (Netting Eligibility for Financial Institutions)

Effective March 29, 2021. On February 16, 2021, the Board approved a final rule (Docket No. R-1661) to reduce risk and increase efficiency in the financial system by applying netting protections to a broader range of financial institutions.[9] The final rule applies netting provisions of the Federal Deposit Insurance Corporation Improvement Act of 1991 to certain new entities, including swap dealers. In addition, the final rule makes minor changes to the existing activities-based test to clarify how it would apply following a consolidation of legal entities.

Voting for this action: Chair Powell, Vice Chair Clarida, Vice Chair for Supervision Quarles, and Governors Brainard, Bowman, and Waller.

Rules of Procedure—Statement Clarifying the Role of Supervisory Guidance

Effective May 10, 2021. On March 25, 2021, the Board approved a final rule (Docket No. R-1725) that codifies, with amendments, the Interagency Statement Clarifying the Role of Supervisory Guidance issued in September 2018 by the Board, OCC, FDIC, National Credit Union Administration, and Consumer Financial Protection Bureau.[10] The final rule outlines the role of supervisory guidance and confirms that, unlike a law or regulation, supervisory guidance does not have the force and effect of law.

Voting for this action: Chair Powell, Vice Chair Clarida, Vice Chair for Supervision Quarles, and Governors Brainard, Bowman, and Waller.

Policy Statements and Other Actions

Capital Planning and Stress Testing

On March 25, 2021, the Board approved (1) an extension, through June 30, 2021, of pandemic-related limits on capital distributions by large bank holding companies and U.S. intermediate

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[9] See *Federal Register* notice at https://www.govinfo.gov/content/pkg/FR-2021-02-26/html/2021-03596.htm.
[10] See *Federal Register* notice at https://www.govinfo.gov/content/pkg/FR-2021-04-08/html/2021-07146.htm.

holding companies of foreign banks and (2) an extension of time, also through June 30, 2021, to notify these firms about whether their SCB requirements would be recalculated.[11] The Board also announced that, following completion of the 2021 stress tests, firms whose capital levels were above minimum risk-based capital requirements would be subject to normal restrictions on capital distributions under the Board's SCB framework and would no longer be subject to pandemic-related restrictions. However, these restrictions would remain in place until September 30, 2021, for any firm that fell below its minimum risk-based capital requirements in the stress tests. If a firm's capital was still below stress test requirements after that date, it would be subject to stricter limitations on capital distributions under the SCB framework.

Voting for this action: Chair Powell, Vice Chair Clarida, Vice Chair for Supervision Quarles, and Governors Brainard, Bowman, and Waller.

On June 21, 2021, the Board approved a delegation of authority related to SCB requirements and stress test results. Specifically, the Board delegated to the director of the Division of Supervision and Regulation and the director of the Division of Financial Stability, with the concurrence of the Vice Chair for Supervision, the authority to provide firms subject to the Board's capital plan rule with notice of their SCB requirement, an explanation of supervisory stress test results, their final SCB requirement, and confirmation of their planned capital distributions. On June 24, 2021, the Board announced that pandemic-related restrictions on firms' capital distributions would end.[12] All 23 firms subject to the 2021 stress tests remained above their minimum capital requirements and would therefore be subject to the Board's normal SCB framework.

Voting for this action: Chair Powell, Vice Chair Clarida, Vice Chair for Supervision Quarles, and Governors Brainard, Bowman, and Waller.

On August 5, 2021, the Board approved affirmation of the SCB requirement for HSBC North America Holdings, Inc., in response to its request for reconsideration.[13] The Board also directed staff to conduct a closer examination of issues raised in the reconsideration process to inform continuing improvements in the stress testing methodology.

Voting for this action: Chair Powell, Vice Chair Clarida, Vice Chair for Supervision Quarles, and Governors Brainard, Bowman, and Waller.

Credit Risk Retention—Determination of Interagency Review

On December 12, 2021, the Board approved a determination of the results of the interagency review (Docket No. OP-1688), issued jointly with the OCC, FDIC, Federal Housing Finance Agency,

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[11] See press release at https://www.federalreserve.gov/newsevents/pressreleases/bcreg20210325a.htm.
[12] See press release at https://www.federalreserve.gov/newsevents/pressreleases/bcreg20210624a.htm.
[13] See press release at https://www.federalreserve.gov/newsevents/pressreleases/bcreg20210805a.htm.

Securities and Exchange Commission, and Department of Housing and Urban Development, required under the Board's Regulation RR, Credit Risk Retention, and the respective credit risk retention regulations of the other agencies (collectively, "the credit risk retention regulations").[14] Specifically, the interagency review covered the definition of "qualified residential mortgage (QRM)," the community-focused residential mortgage exemption, and the exemption for qualifying three- to four-unit residential mortgage loans, as each is set forth in the credit risk retention regulations. After completing the review, the Board and the other agencies determined not to propose any changes at this time to the QRM definition or the associated exemptions for community-focused residential mortgages and qualifying three- to four-unit residential mortgages.

Voting for this action: Chair Powell, Vice Chair Clarida, and Governors Quarles, Brainard, Bowman, and Waller.

Fedwire Funds Service

On September 30, 2021, 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.[15] The new format will allow for increased efficiency due to greater interoperability among global payment systems as well as a richer set of payment data that may help banks and other participants comply with sanctions and anti-money-laundering requirements. The Board also invited public comment on a revised plan for migrating the Fedwire Funds Service to the new message format on a single day, rather than in three separate phases as previously proposed. This single-day migration would be targeted for, and would be no earlier than, November 2023.

Voting for this action: Chair Powell, Vice Chair Clarida, Vice Chair for Supervision Quarles, and Governors Brainard, Bowman, and Waller.

Interest on Reserves

On June 16, 2021, the Board approved raising the interest rate paid on required and excess reserve balances from 0.10 percent to 0.15 percent, effective June 17, 2021.[16] This action was taken to support the FOMC's decision on June 16, 2021, to maintain the federal funds rate in a target range of 0 to ¼ percent. Setting the interest rate paid on required and excess reserve balances to 15 basis points above the bottom of the target range for the federal funds rate was intended to foster trading in the federal funds market at rates well within the FOMC's target range and to support smooth functioning of short-term funding markets.

Voting for this action: Chair Powell, Vice Chair Clarida, Vice Chair for Supervision Quarles, and Governors Bowman, Brainard, and Waller.

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[14] See *Federal Register* notice at https://www.govinfo.gov/content/pkg/FR-2021-12-20/html/2021-27561.htm.
[15] See *Federal Register* notice at https://www.govinfo.gov/content/pkg/FR-2021-10-06/html/2021-21801.htm.
[16] See press release at https://www.federalreserve.gov/newsevents/pressreleases/monetary20210616a1.htm.

On July 28, 2021, the Board approved establishing the interest rate paid on reserve balances at 0.15 percent, effective July 29, 2021.[17] This action was taken to support the FOMC's decision on July 28, 2021, to maintain the federal funds rate in a target range of 0 to ¼ percent. As announced on June 2, 2021, the Federal Reserve Board approved a final rule, effective July 29, 2021, amending Regulation D to eliminate references to an IORR rate and to an IOER rate and replace them with a single IORB rate.[18] Therefore, the Board voted on one rate—the interest on reserve balances rate—at this meeting and will continue to do so going forward.

Voting for this action: Chair Powell, Vice Chair Clarida, Vice Chair for Supervision Quarles, and Governors Bowman, Brainard, and Waller.

Paycheck Protection Program Liquidity Facility

On March 4, 2021, the Board approved an extension of the Paycheck Protection Program Liquidity Facility (PPPLF) to June 30, 2021, to enable the facility to provide continued support for the flow of credit to small businesses through the Small Business Administration's PPP.[19] Under the PPPLF, eligible financial institutions could pledge PPP loans as collateral in exchange for term credit.

Voting for this action: Chair Powell, Vice Chair Clarida, Vice Chair for Supervision Quarles, and Governors Brainard, Bowman, and Waller.

On June 25, 2021, the Board approved an extension of the PPPLF to July 30, 2021, in order to enable financial institutions to pledge to the facility any PPP loans approved by the Small Business Administration through the June 30, 2021, expiration of the PPP.[20]

Voting for this action: Chair Powell, Vice Chair Clarida, Vice Chair for Supervision Quarles, and Governors Brainard, Bowman, and Waller.

Discount Rates for Depository Institutions in 2021

Under the FRA, 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.[21]

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[17] See press release at https://www.federalreserve.gov/newsevents/pressreleases/monetary20210728a1.htm.
[18] See press release at https://www.federalreserve.gov/newsevents/pressreleases/bcreg20210602a.htm.
[19] See press release at https://www.federalreserve.gov/newsevents/pressreleases/monetary20210308a.htm.
[20] See press release at https://www.federalreserve.gov/newsevents/pressreleases/monetary20210625a.htm.
[21] See the minutes of the Board of Governors discount rate meetings at https://www.federalreserve.gov/monetarypolicy/discountrate.htm.

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. Throughout 2021, the primary credit rate was ¼ percent.

Following changes to the primary credit rate program announced by the Board on March 15, 2020, in 2021 depository institutions could borrow primary credit for periods as long as 90 days, prepayable and renewable by the borrower on a daily basis. Collectively, maintaining the offering rate and other terms of primary credit reflected continued efforts by the Federal Reserve to encourage discount window use to support the smooth flow of credit to households and businesses during the COVID event.[22]

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 2021, the spread was set at 50 basis points. At year-end, the secondary credit rate was ¾ 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 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 0.15 percent (see table E.1).[23]

Table E.1. Federal Reserve Bank interest rates on loans to depository institutions, December 31, 2021
Percent

Reserve Bank	Primary credit	Secondary credit	Seasonal credit
All banks	0.25	0.75	0.15

Note: Primary credit is available for very short terms as a backup source of liquidity to depository institutions that are in generally sound financial condition in the judgment of the lending Federal Reserve Bank. Secondary credit is available in appropriate circumstances to depository institutions that do not qualify for primary credit. Seasonal credit is available to help relatively small depository institutions meet regular seasonal needs for funds that arise from a clear pattern of intra-yearly movements in their deposits and loans. The discount rate on seasonal credit takes into account rates charged by market sources of funds and is reestablished on the first business day of each two-week reserve maintenance period.

[22] See press release at https://www.federalreserve.gov/newsevents/pressreleases/monetary20200315b.htm.
[23] For current and historical discount rates, see https://www.frbdiscountwindow.org.

Votes on Changes to Discount Rates for Depository Institutions

Throughout 2021, there were no changes to 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.

The Board of Governors and the Government Performance and Results Act

Overview

The Government Performance and Results Act (GPRA) of 1993 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*.[24]

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 current *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 congressional mandate, while maintaining ongoing operations.

The *Annual Performance Report* summarizes the Board's accomplishments throughout the performance year that contributed 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 its mission.

[24] 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

During 2021, the Board of Governors was a party in 5 lawsuits or appeals filed that year and was a party in 5 other cases pending from previous years, for a total of 10 cases. In 2020, the Board had been a party in a total of 13 cases. As of December 31, 2021, six cases were pending.

Pending

Bernstein v. Federal Reserve et al., No. 21-cv-8174 (D. Arizona, filed August 3, 2021), is an action alleging fraud and conspiracy involving multiple defendants.

Fruge v. Board of Governors, No. 20-cv-2811 (D. District of Columbia, filed October 2, 2020), is an action claiming retaliation for protected disclosures.

Greenspan v. Board of Governors, No. 21-cv-1968 (D. District of Columbia, filed July 20, 2021), is an action under the Freedom of Information Act.

Junk v. Board of Governors, No. 19-3125 (2d Circuit, filed September 27, 2019), is an appeal under the Freedom of Information Act.

North Dakota Retail Association et al. v. Board of Governors, No. 21-cv-95 (D. North Dakota, filed April 29, 2021), is an Administrative Procedure Act challenge to the debit interchange fee provisions of the Board's Regulation II.

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

Baylor v. Powell, No. 20-5176 (D.C. Circuit, filed June 22, 2020), was an appeal of an order granting summary judgment to the Board in an employment discrimination case. On April 23, 2021, the court of appeals affirmed the district court's judgment.

Center for Biological Diversity v. Department of Treasury and Board of Governors, No. 20-cv-1322 (D. District of Columbia, filed May 19, 2020), was an action under the Freedom of Information Act. On May 18, 2021, the plaintiff voluntarily dismissed the case.

Center for Popular Democracy v. Board of Governors, No. 16-cv-5829 (E.D. New York, filed October 19, 2016), was an action under the Freedom of Information Act. On September 30, 2021, the court entered final judgment.

Estrada v. Federal Reserve et al., No. 21-cv-528 (D. District of Columbia, filed February 24, 2021), was an action alleging violations of the Federal Reserve Act. On July 13, 2021, the court dismissed the cased.

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, 2021
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	84,064	79,292	68,155	93,734	80,179	73,555	98,228	86,855	81,437	79,352	90,021	81,412	996,284
For new bills	84,064	79,292	68,155	93,734	80,179	73,555	98,228	86,855	81,437	79,352	90,021	81,412	996,284
Redemptions	0	0	0	0	0	0	0	0	0	0	0	0	0
Others up to 1 year													
Gross purchases	5,916	5,698	40	10,852	3,763	2,012	9,222	3,624	7,213	17,545	1,590	6,948	74,423
Gross sales	0	0	0	0	0	0	0	0	0	0	0	0	0
Exchanges	−12,063	−77,472	−92,435	−66,738	−66,844	−85,643	−19,755	−106,108	−39,394	−9,029	−110,862	−47,763	−734,105
Redemptions	0	0	0	0	0	0	0	0	0	0	0	0	0
Over 1 to 5 years													
Gross purchases	43,675	55,509	47,127	43,283	47,149	34,522	50,915	48,002	31,463	47,502	34,061	26,790	509,998
Gross sales	0	0	0	0	0	25	0	0	0	0	25	0	50
Exchanges	5,831	41,180	51,535	40,796	30,769	49,614	9,548	55,348	20,749	4,364	57,185	28,885	395,803
Over 5 to 10 years													
Gross purchases	15,896	16,352	10,200	10,353	12,598	21,125	10,084	18,659	15,880	12,432	13,148	10,865	167,592
Gross sales	0	0	0	0	0	0	0	0	0	0	0	0	0
Exchanges	3,820	23,254	29,254	17,674	21,751	24,939	6,256	32,019	13,199	2,859	34,880	12,917	222,821
More than 10 years													
Gross purchases	14,527	15,257	21,578	18,323	14,373	14,356	13,790	16,333	12,458	14,332	12,409	11,604	179,340
Gross sales	0	0	0	0	0	0	0	0	0	0	0	0	0
Exchanges	2,413	13,039	11,646	8,268	14,324	11,090	3,951	18,742	5,446	1,806	18,797	5,961	115,482
All maturities													
Gross purchases	80,014	92,816	78,945	82,811	77,883	72,015	84,011	86,618	67,014	91,811	61,208	56,207	931,353
Gross sales	0	0	0	0	0	25	0	0	0	0	25	0	50
Redemptions	0	0	0	0	0	0	0	0	0	0	0	0	0
Net change in U.S. Treasury securities	80,014	92,816	78,945	82,811	77,883	71,990	84,011	86,618	67,014	91,811	61,183	56,207	931,303

(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	30,317	63,430	51,470	6,642	52,945	75,367	65,148	53,282	56,631	33,120	43,059	44,668	576,079
Total net change in securities holdings[4]	**110,331**	**156,246**	**130,415**	**89,453**	**130,828**	**147,357**	**149,159**	**139,900**	**123,645**	**124,931**	**104,242**	**100,875**	**1,507,382**
Temporary transactions													
Repurchase agreements[5]	1,000	711	261	0	2	0	0	0	0	0	0	0	n/a
Reverse repurchase agreements[5]	210,163	208,404	223,861	293,766	498,489	876,277	1,105,167	1,323,559	1,500,444	1,715,668	1,746,798	1,893,030	n/a
Foreign official and international accounts	209,197	207,162	205,062	227,016	223,006	234,178	256,801	270,823	289,556	289,907	301,899	294,095	n/a
Others	966	1,242	18,799	66,751	275,483	642,099	848,367	1,052,735	1,210,888	1,425,761	1,444,900	1,598,935	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, 2019–21

Millions of dollars

Description	December 31			Change	
	2021	2020	2019	2020–21	2019–20
U.S. Treasury securities[1]					
Held outright[2]	**5,652,542**	**4,688,929**	**2,328,933**	**963,613**	**2,359,996**
By remaining maturity					
Bills					
1–90 days	207,113	191,154	51,763	15,959	139,391
91 days to 1 year	118,931	134,890	117,762	−15,959	17,128
Notes and bonds					
1 year or less	807,747	708,144	303,438	99,603	404,706
More than 1 year through 5 years	2,146,103	1,759,737	893,832	386,366	865,905
More than 5 years through 10 years	1,019,239	836,893	321,591	182,346	515,302
More than 10 years	1,353,409	1,058,111	640,547	295,298	417,564
By type					
Bills	326,044	326,044	169,525	0	156,519
Notes	3,748,992	3,063,037	1,290,107	685,955	1,772,930
Bonds	1,577,506	1,299,848	869,301	277,658	430,547
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	2,134	1,818	486	316	1,332
More than 10 years	213	529	1,861	−316	−1,332
By type					
Discount notes	0	0	0	0	0
Coupons	2,347	2,347	2,347	0	0
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

(continued)

Table G.2—*continued*

Description	December 31			Change	
	2021	2020	2019	2020–21	2019–20
Mortgage-backed securities[3, 4]					
Held outright[2]	**2,615,546**	**2,039,467**	**1,408,677**	**576,079**	**630,790**
By remaining maturity					
1 year or less	26	4	12	22	−8
More than 1 year through 5 years	1,803	2,016	1,135	−213	881
More than 5 years through 10 years	60,328	72,044	73,528	−11,716	−1,484
More than 10 years	2,553,389	1,965,403	1,334,002	587,986	631,401
By issuer					
Federal Home Loan Mortgage Corporation	977,512	667,007	422,087	310,505	244,920
Federal National Mortgage Association	1,075,531	888,260	652,729	187,271	235,531
Government National Mortgage Association	562,503	484,200	333,861	78,303	150,339
Temporary transactions[5]					
Repurchase agreements[6]	**0**	**1,000**	**255,619**	**−1,000**	**−254,619**
Repo operations	0	0	255,619	0	255,619
FIMA Repo Facility	0	1,000	0	−1,000	−1,000
Reverse repurchase agreements[6]	**2,183,041**	**216,051**	**336,649**	**1,966,990**	**−120,598**
Foreign official and international accounts	278,459	206,400	272,562	72,059	−66,162
Primary dealers and expanded counterparties	1,904,582	9,651	64,087	1,894,931	−54,436

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. In 2020, the Foreign and International Monetary Authorities (FIMA) Repo Facility was established. In 2021, the FIMA Repo Facility was converted from temporary to a standing facility for repurchase agreements.

Table G.3. Reserve requirements of depository institutions, December 31, 2021

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, 2020 and 2021

Type of office	Total	Commercial banks[1]					Savings banks
		Total	Member			Nonmember	
			Total	National	State		
Banks							
Number, Dec. 31, 2020	**4,600**	**4,368**	**1,466**	**757**	**709**	**2,902**	**232**
Changes during 2021	0	0	0	0	0	0	0
New banks	14	13	3	2	1	10	1
Banks converted into branches	–142	–138	–45	–13	–32	–93	–4
Ceased banking operations[2]	–21	–19	–10	–2	–8	–9	–2
Other[3]	0	0	1	–8	9	–1	0
Net change	–149	–144	–51	–21	–30	–93	–5
Number, Dec. 31, 2021	**4,451**	**4,224**	**1,415**	**736**	**679**	**2,809**	**227**
Branches and additional offices							
Number, Dec. 31, 2020	**75,971**	**73,665**	**49,876**	**37,845**	**12,031**	**23,789**	**2,306**
Changes during 2021	0	0	0	0	0	0	0
New branches	1,174	952	625	470	155	327	222
Banks converted to branches	142	139	66	27	39	73	3
Discontinued[2]	–3,743	–3,675	–2,731	–2,192	–539	–944	–68
Other[3]	0	32	37	555	–518	–5	–32
Net change	–2,427	–2,552	–2,003	–1,140	–863	–549	125
Number, Dec. 31, 2021	**73,544**	**71,113**	**47,873**	**36,705**	**11,168**	**23,240**	**2,431**
Banks affiliated with BHCs							
Number, Dec. 31, 2020	**3,906**	**3,789**	**1,333**	**672**	**661**	**2,456**	**117**
Changes during 2021	0	0	0	0	0	0	0
BHC-affiliated new banks	49	43	10	7	3	33	6
Banks converted into branches	–125	–121	–44	–12	–32	–77	–4
Ceased banking operations[2]	–23	–21	–12	–3	–9	–9	–2
Other[3]	0	0	1	–8	9	–1	0
Net change	–99	–99	–45	–16	–29	–54	0
Number, Dec. 31, 2021	**3,807**	**3,690**	**1,288**	**656**	**632**	**2,402**	**117**

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 1984–2021 and month-end 2021

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

(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]			
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
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
2021, month-end									
Jan.	6,839,945	1,000	145,684	–625	402,272	7,388,276	11,041	5,200	50,564
Feb.	6,985,520	500	144,269	–597	393,338	7,523,030	11,041	5,200	50,567
Mar.	7,129,308	0	146,079	–1,050	395,824	7,670,161	11,041	5,200	50,623
Apr.	7,210,316	0	156,469	–350	397,680	7,764,115	11,041	5,200	50,630
May	7,344,623	0	166,169	–674	387,679	7,897,797	11,041	5,200	50,656
Jun.	7,505,369	0	163,572	–1,062	392,067	8,059,946	11,041	5,200	50,712
Jul.	7,653,186	0	152,843	–366	400,842	8,206,505	11,041	5,200	50,782
Aug.	7,804,616	0	137,533	–634	388,101	8,329,616	11,041	5,200	50,838
Sep.	7,930,202	1	105,518	–699	393,943	8,428,965	11,041	5,200	50,867
Oct.	8,057,413	0	94,879	–604	400,602	8,552,290	11,041	5,200	50,838
Nov.	8,160,850	0	82,038	–632	385,489	8,627,745	11,041	5,200	50,894
Dec.	8,270,436	0	77,621	–582	389,982	8,737,457	11,041	5,200	50,942

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 From 2020–2021, includes only central bank liquidity swaps; primary, seasonal, and secondary credit; Primary Dealer Credit Facility; Money Market Mutual Fund Liquidity Facility; Paycheck Protection Program Liquidity Facility; and net portfolio holdings of Commercial Paper Funding Facility II LLC, Corporate Credit Facilities LLC, MS Facilities LLC (Main Street Lending Program), Municipal Facility LLC, and Term Asset-Backed Securities Loan Facility II LLC. Money Market Mutual Fund Liquidity Facility and Primary Dealer Credit Facility ceased extending loans on March 31, 2021, and all outstanding loans were repaid by April 6, 2021, and April 15, 2021, respectively. Commercial Paper Funding Facility II LLC and Corporate Credit Facilities LLC were terminated on July 8, 2021, and December 17, 2021, respectively. From 2015–19, includes only central bank liquidity swaps; primary, seasonal, and secondary credit; and net portfolio holdings of Maiden Lane LLC. For disaggregated loans and other credit extensions from 1984–2014, refer to "Table 6B. 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.—*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[r]	125	64,909	2,480	72,766	1,559,731
2012	1,169,159	107,188	150	0	92,720	n/a[r]	6,427	27,476	n/a	66,093	1,491,044
2013	1,241,228	315,924	234	0	162,399	n/a[r]	7,970	26,181	n/a	63,049	2,249,070
2014	1,342,957	509,837	201	0	223,452	n/a[r]	5,242	20,320	n/a	61,447	2,377,995
2015	1,424,967	712,401	266	0	333,447	n/a[r]	5,231	31,212	n/a	45,320	1,977,163

(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]			
2016	1,509,440	725,210	166	0	399,190	n/a[r]	5,165	53,248	n/a	46,943	1,759,675
2017	1,618,006	563,958	214	0	228,933	n/a[r]	5,257	77,762	n/a	47,876	1,954,426
2018	1,719,302	304,012	214	0	402,138	n/a[r]	5,245	73,073	n/a	45,007	1,555,954
2019	1,807,740	336,649	171	0	403,853	n/a[r]	5,182	74,075	n/a	44,867	1,548,849
2020	2,089,224	216,051	28	0	1,728,569	n/a[r]	21,838	194,327	n/a	163,075[r]	2,994,932
2021	2,236,674	2,183,041	65	0	406,108	n/a	9,331	255,263	n/a	69,766	3,644,277
2021, month-end											
Jan.	2,096,648	233,752	48	0	1,611,352	n/a	21,849	197,320	n/a	101,035	3,192,989
Feb.	2,101,933	232,994	84	0	1,414,465	n/a	22,350	254,127	n/a	95,275	3,468,547
Mar.	2,144,066	352,177	89	0	1,121,951	n/a	33,209	315,122	n/a	97,615	3,672,702
Apr.	2,164,017	415,000	47	0	970,716	n/a	28,091	323,889	n/a	99,334	3,829,821
May	2,176,566	715,185	37	0	776,700	n/a	26,786	380,629	n/a	99,732	3,788,989
Jun.	2,183,455	1,260,925	41	0	851,929	n/a	5,255	225,002	n/a	88,536	3,511,630
Jul.	2,186,384	1,321,101	48	0	459,402	n/a	5,589	241,839	n/a	89,592	3,969,425
Aug.	2,190,975	1,479,055	43	0	355,984	n/a	5,323	230,153	n/a	90,110	4,044,863
Sep.	2,197,024	1,905,171	51	0	215,160	n/a	5,706	240,769	n/a	72,753	3,859,245
Oct.	2,205,010	1,801,993	52	0	278,023	n/a	5,607	249,565	n/a	74,563	4,004,419
Nov.	2,221,549	1,833,164	71	0	213,153	n/a	5,344	238,141	n/a	70,688	4,112,633
Dec.	2,236,674	2,183,041	65	0	406,108	n/a	9,331	255,263	n/a	69,766	3,644,277

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 2010, includes funds from American International Group, Inc. asset dispositions, held as agent. In 2020 and 2021, includes equity investments in Commercial Paper Funding Facility II LLC, Corporate Credit Facilities LLC, MS Facilities LLC (Main Street Lending Program), Municipal Facility LLC, and Term Asset-Backed Securities Loan Facility II LLC.
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.—*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	1123	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
1958	32,193	683	358	272	391	1,122	0	0	18,504	n/a	18,574	–70

(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							
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	1,491[13]	0	0	2,669	27,060	6,781	35,268	-1,360
1974	79,743	185	3,113	418	1,275[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, 2021 and 2020

Millions of dollars, except as noted

Item	Total	Member banks			Nonmember banks
		Total	National	State	
2021					
Loans and investments	14,678,776	11,645,915	9,396,565	2,249,351	3,032,861
Loans, gross	9,605,477	7,286,717	5,832,211	1,454,506	2,318,760
Net	9,602,707	7,285,655	5,831,453	1,454,202	2,317,052
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	2,688,909	2,288,041	1,729,892	558,149	400,868
Deposits, total	15,882,719	12,860,017	10,322,384	2,537,633	3,022,702
Interbank	314,706	290,024	240,088	49,937	24,682
Other transactions	4,969,801	4,048,947	3,077,326	971,621	920,854
Other nontransactions	10,598,212	8,521,046	7,004,971	1,516,075	2,077,167
Equity capital	2,150,922	1,742,540	1,418,401	324,139	408,381
Number of banks	4,327	1,446	754	692	2,881
2020					
Loans and investments	13,765,027	10,954,457	8,914,500	2,039,957	2,810,570
Loans, gross	9,770,773	7,475,330	6,062,612	1,412,718	2,295,442
Net	9,767,267	7,473,435	6,061,184	1,412,251	2,293,832
Investments	3,994,254	3,479,127	2,851,888	627,239	515,127
U.S. government securities	796,738	757,345	668,668	88,677	39,393
Other	3,197,516	2,721,782	2,183,220	538,562	475,734
Cash assets, total	2,189,495	1,895,397	1,516,092	379,304	294,098
Deposits, total	14,393,534	11,725,835	9,593,340	2,132,494	2,667,699
Interbank	305,176	282,163	235,738	46,425	23,013
Other transactions	2,865,179	2,362,351	1,718,761	643,590	502,828
Other nontransactions	11,223,179	9,081,321	7,638,841	1,442,480	2,141,858
Equity capital	2,008,374	1,632,683	1,330,807	301,876	375,691
Number of banks	4,421	1,479	778	701	2,942

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 2020 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, 2021 and 2020
Millions of dollars

Item	Total		Boston		New York		Philadelphia		Cleveland		Richmond	
	2021	2020	2021	2020	2021	2020	2021	2020	2021	2020	2021	2020
Assets												
Gold certificates	11,037	11,037	335	337	3,604	3,665	313	319	515	524	775	753
Special drawing rights certificates	5,200	5,200	196	196	1,818	1,818	210	210	237	237	412	412
Coin	1,232	1,563	13	31	22	39	114	130	47	86	180	206
Loans and securities												
Loans to depository institutions	555	1,602	32	62	0	876	15	10	0	1	18	49
Other loans	33,853	54,535	15	4,773	4,713	8,615	48	6,264	6,435	1,559	494	3,083
Securities purchased under agreements to resell[1]	0	1,000	0	22	0	518	0	23	0	31	0	63
Treasury securities, net[2, 3]	5,917,426	4,955,871	98,885	111,293	3,344,861	2,565,941	124,981	113,067	215,312	155,054	396,515	310,605
Federal agency and government-sponsored enterprise mortgage-backed securities, net[2]	2,685,268	2,109,715	44,873	47,378	1,517,864	1,092,321	56,715	48,132	97,706	66,006	179,935	132,224
Government-sponsored enterprise debt securities, net[2, 3]	2,610	2,634	44	59	1,475	1,364	55	60	95	82	175	165
Total loans and securities	8,639,712	7,125,357	143,849	163,587	4,868,913	3,669,635	181,814	167,557	319,548	222,733	577,137	446,189
Consolidated variable interest entities: Assets held, net[4]	40,171	140,335	29,707	51,790	10,465	88,545	n/a	n/a	n/a	n/a	n/a	n/a
Accrued interest receivable - System Open Market Account	30,976	30,057	519	677	17,499	15,548	655	687	1,130	945	2,082	1,895
Foreign currency denominated investments, net[5]	20,330	22,204	923	1,054	6,832	7,462	730	799	1,758	1,897	4,231	4,687
Central bank liquidity swaps[6]	3,340	17,883	152	849	1,122	6,010	120	644	289	1,528	695	3,775
Other assets												
Bank premises and equipment, net	2,610	2,596	108	110	489	491	167	146	138	139	335	355
Items in process of collection	76	132	0	*	0	*	0	*	0	*	0	*
Deferred asset - remittances to the Treasury	0	926	0	0[r]	0	1,055	0	3	0	0[r]	0	0[r]
Interdistrict settlement account	0	0[r]	53,573	−4,919	−675,247	167,835	11,693	−8,481	29,613	86,860	119,685	108,472
All other assets[7]	1,715	2,603	58	1,570	756	229	16	26	75	51	214	178
Total assets	**8,756,399**	**7,359,893**	**229,433**	**215,282[r]**	**4,236,273**	**3,962,332**	**195,832**	**162,039**	**353,350**	**315,000[r]**	**705,746**	**566,922[r]**

(continued)

Table G.8A—*continued*

Item	Total		Boston		New York		Philadelphia		Cleveland		Richmond	
	2021	2020	2021	2020	2021	2020	2021	2020	2021	2020	2021	2020
Liabilities												
Federal Reserve notes outstanding	2,436,967	2,192,130	79,284	66,817	750,189	705,757	72,804	61,623	114,939	101,042	172,027	164,169
Less: Notes held by Federal Reserve Bank	249,828	151,855	6,315	4,534	51,657	30,162	10,590	5,594	10,983	7,610	16,921	12,910
Federal Reserve notes outstanding, net	2,187,139	2,040,275	72,969	62,283	698,532	675,595	62,214	56,029	103,956	93,432	155,106	151,259
Securities sold under agreements to repurchase[1]	2,183,041	216,051	36,480	4,852	1,233,977	111,862	46,108	4,929	79,432	6,760	146,281	13,541
Deposits												
Depository institutions	3,644,277	2,994,932	103,751	107,297	1,810,633	1,274,441	85,730	99,375	165,462	207,045	394,655	392,342
Treasury, general account	406,108	1,728,569	n/a	n/a	406,108	1,728,569	n/a	n/a	n/a	n/a	n/a	n/a
Other deposits[8]	264,593	217,665	19	1,861	61,911	78,244	1	1	258	4,020	647	774
Total deposits	**4,314,978**	**4,941,166**	**103,770**	**109,158**	**2,278,652**	**3,081,254**	**85,731**	**99,376**	**165,720**	**211,065**	**395,302**	**393,116**
Other liabilities												
Accrued remittances to the Treasury[9]	4,384	0	51	12[r]	2,944	0	69	0	32	13[r]	325	45[r]
Deferred credit items	659	698	0	0	0	0	0	0	0	0	0	0
Consolidated variable interest entities: Other liabilities	156	213	152	187	4	26	n/a	n/a	n/a	n/a	n/a	n/a
Deposit - Treasury funding of lending facility credit protection	0	1,500	0	1,500	0	0	n/a	n/a	n/a	n/a	n/a	n/a
All other liabilities[10]	5,579	10,143	200	410	2,262	4,876	202	297	236	340	578	799
Total liabilities	**8,695,936**	**7,210,046**	**213,622**	**178,402[r]**	**4,216,371**	**3,873,613**	**194,324**	**160,631**	**349,376**	**311,610[r]**	**697,592**	**558,760[r]**

(continued)

Table G.8A—*continued*

Item	Total		Boston		New York		Philadelphia		Cleveland		Richmond	
	2021	2020	2021	2020	2021	2020	2021	2020	2021	2020	2021	2020
Capital accounts												
Capital paid-in	33,877	32,376	1,459	1,470	11,797	10,880	1,256	1,163	3,311	2,800	6,793	6,738
Surplus (including accumulated other comprehensive loss)	6,785	6,825	292	310	2,363	2,294	252	245	663	590	1,361	1,420
Total Reserve Bank capital	40,662	39,201	1,751	1,780	14,160	13,174	1,508	1,408	3,974	3,390	8,154	8,158
Consolidated variable interest entities formed to administer credit and liquidity facilities: Non-controlling interest	19,801	110,646	14,060	35,098	5,742	75,548	n/a	n/a	n/a	n/a	n/a	n/a
Total Reserve Bank capital and consolidated variable interest entities non-controlling interest	60,463	149,847	15,811	36,878	19,902	88,722	1,508	1,408	3,974	3,390	8,154	8,158
Total liabilities and capital accounts	**8,756,399**	**7,359,893**	**229,433**	**215,268**	**4,236,273**	**3,962,335**	**195,832**	**162,039**	**353,350**	**314,987**	**705,746**	**566,873**

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 are presented at amortized cost, net of unamortized premiums and unamortized discounts. Prior year unamortized premiums and unamortized discounts were reclassified to align with current year presentation.
[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 (Main Street Lending Program), and the Federal Reserve Bank of New York is the primary beneficiary of Commercial Paper Funding Facility LLC, Corporate Credit Facilities LLC, 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] 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.
[8] Includes deposits of government-sponsored enterprises (GSEs), 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. In 2021, includes foreign official deposit accounts. Prior year foreign official deposit accounts were reclassified to align with current year presentation.
[9] Represents the estimated weekly remittances to the U.S. Treasury.
[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.
r Revised.

Table G.8A. Statement of condition of the Federal Reserve Banks, by Bank, December 31, 2021 and 2020—*continued*

Millions of dollars

Item	Atlanta		Chicago		St. Louis		Minneapolis		Kansas City		Dallas		San Francisco	
	2021	2020	2021	2020	2021	2020	2021	2020	2021	2020	2021	2020	2021	2020
Assets														
Gold certificates	1,534	1,529	712	713	325	329	183	180	302	297	938	920	1,501	1,471
Special drawing rights certificates	654	654	424	424	150	150	90	90	153	153	282	282	574	574
Coin	110	154	227	258	18	33	33	43	88	106	154	183	226	293
Loans and securities														
Loans to depository institutions	50	37	161	95	0	1	10	10	23	16	10	47	236	398
Other Loans, net	82	2,120	85	1,403	389	1,383	12,232	7,945	445	4,451	211	1,865	8,706	11,073
Securities purchased under agreements to resell[1]	0	74	0	56	0	16	0	9	0	16	0	48	0	124
Treasury securities, net[2, 3]	346,715	365,230	322,915	276,809	77,147	78,302	45,787	46,837	78,579	78,809	261,678	238,843	604,051	615,084
Federal agency and government-sponsored enterprise mortgage-backed securities, net[2]	157,336	155,478	146,536	117,838	35,009	33,332	20,778	19,938	35,658	33,549	118,747	101,676	274,112	261,841
Government-sponsored enterprise debt securities, net[2, 3]	153	194	142	147	34	42	20	25	35	42	115	127	266	327
Total loans and securities	504,336	523,133	469,839	396,348	112,579	113,076	78,827	74,764	114,740	116,883	380,761	342,606	887,371	888,847
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	1,814	2,213	1,690	1,677	404	475	240	284	411	478	1,369	1,446	3,164	3,732
Foreign currency denominated investments, net[5]	920	1,101	797	862	387	364	173	174	220	234	366	264	2,994	3,306
Central bank liquidity swaps[6]	151	887	131	694	64	293	28	140	36	189	60	212	492	2,663
Other assets														
Bank premises and equipment, net	213	217	206	205	103	106	108	97	246	249	242	239	254	242
Items in process of collection	76	132	0	*	0	*	*	*	0	*	0	*	0	*
Deferred asset - remittances to the Treasury	0	0[r]	0	17	0	11	0	9	0	2	0	24	0	0[r]
Interdistrict settlement account	97,915	−112,353	135,797	5,189	27,887	−19,246	2,942	−12,985	29,550	−12,766	85,680	−31,818	80,913	−165,789
All other assets[7]	59	68	34	33	100	91	111	77	117	113	38	39	134	132
Total assets	**607,782**	**417,735[r]**	**609,857**	**406,420**	**142,017**	**95,682**	**82,735**	**62,873**	**145,863**	**105,938**	**469,890**	**314,397**	**977,623**	**735,471[r]**

(continued)

Table G.8A—*continued*

Item	Atlanta		Chicago		St. Louis		Minneapolis		Kansas City		Dallas		San Francisco	
	2021	2020	2021	2020	2021	2020	2021	2020	2021	2020	2021	2020	2021	2020
Liabilities														
Federal Reserve notes outstanding	360,449	302,765	144,134	142,287	70,794	63,686	38,061	63,247	63,274	59,920	220,480	186,470	350,532	301,347
Less: Notes held by Federal Reserve Bank	32,723	21,798	22,227	9,680	5,845	4,660	4,873	2,680	7,313	4,736	27,361	13,854	53,020	33,638
Federal Reserve notes outstanding, net	327,726	280,967	121,907	132,607	64,949	59,026	33,188	33,567	55,961	55,184	193,119	172,616	297,512	267,709
Securities sold under agreements to repurchase[1]	127,909	15,922	119,129	12,067	28,461	3,414	16,892	2,042	28,989	3,436	96,538	10,412	222,845	26,815
Deposits														
Depository institutions	149,017	114,835	170,267	140,534	47,564	32,260	31,247	26,641	57,295	40,311	178,123	125,751	450,533	434,101
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[8]	527	2,806	196,455	119,071	11	2	983	88	2,951	6,324	758	4,447	71	27
Total deposits	**149,544**	**117,641**	**366,722**	**259,605**	**47,575**	**32,262**	**32,230**	**26,729**	**60,246**	**46,635**	**178,881**	**130,198**	**450,604**	**434,128**
Other liabilities														
Accrued remittances to the Treasury[9]	251	68[r]	148	0	34	0	67	0	55	0	90	0	318	57[r]
Deferred credit items	659	696	0	0	0	0	*	0	*	3	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
Deposit - Treasury funding of lending facility credit protection	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]	370	668	410	604	179	236[r]	153	200[r]	193	257	285	463[r]	514	989
Total liabilities	**606,459**	**415,962[r]**	**608,316**	**404,883**	**141,198**	**94,938[r]**	**82,530**	**62,538**	**145,444**	**105,515**	**468,913**	**313,689**	**971,793**	**729,698[r]**

(continued)

Table G.8A—*continued*

Item	Atlanta		Chicago		St. Louis		Minneapolis		Kansas City		Dallas		San Francisco	
	2021	2020	2021	2020	2021	2020	2021	2020	2021	2020	2021	2020	2021	2020
Capital accounts														
Capital paid-in	1,102	1,464	1,284	1,269	682	616	171	275	349	350	814	583	4,857	4,768
Surplus (including accumulated other comprehensive loss)	221	309	257	267	137	130	34	58	70	74	163	123	973	1,005
Total Reserve Bank capital	1,323	1,773	1,541	1,536	819	746	205	333	419	424	977	706	5,830	5,773
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	1,323	1,773	1,541	1,536	819	746	205	333	419	424	977	706	5,830	5,773
Total liabilities and capital accounts	**607,782**	**417,735**[r]	**609,857**	**406,419**	**142,017**	**95,684**[r]	**82,735**	**62,871**	**145,863**	**105,939**	**469,890**	**314,395**	**977,623**	**735,471**[r]

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 are presented at amortized cost, net of unamortized premiums and unamortized discounts. Prior year unamortized premiums and unamortized discounts were reclassified to align with current year presentation.

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 (Main Street Lending Program), and the Federal Reserve Bank of New York is the primary beneficiary of Commercial Paper Funding Facility LLC, Corporate Credit Facilities LLC, 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 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.

8 Includes deposits of government-sponsored enterprises (GSEs), 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. In 2021, includes foreign official deposit accounts. Prior year foreign official deposit accounts were reclassified to align with current year presentation.

9 Represents the estimated weekly remittances to the U.S. Treasury.

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.

r Revised.

Table G.8B. Statement of condition of the Federal Reserve Banks, December 31, 2021 and 2020 Supplemental information—collateral held against Federal Reserve notes: Federal Reserve agents' accounts

Millions of dollars

Item	2021	2020
Federal Reserve notes outstanding	2,436,967	2,192,130
Less: Notes held by Federal Reserve Banks not subject to collateralization	249,828	151,855
Collateralized Federal Reserve notes	**2,187,139**	**2,040,275**
Collateral for Federal Reserve notes		
Gold certificates	11,037	11,037
Special drawing rights certificates	5,200	5,200
U.S. Treasury securities[1]	2,170,902	2,024,038
Total collateral	**2,187,139**	**2,040,275**

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, 2021
Thousands of dollars

Item	Total	Boston	New York	Philadelphia	Cleveland	Richmond
Current income						
Interest income						
Primary, secondary, and seasonal loans	1,879	59	627	108	0	33
Other loans, net	226,773	5,996	31,976	11,174	31,096	6,511
Interest income on securities purchased under agreements to resell	565	13	293	13	18	35
Treasury securities, net	92,610,283	1,675,573	51,290,598	1,993,732	3,256,152	6,109,103
Federal agency and government-sponsored enterprise mortgage-backed securities, net	29,618,781	541,483	16,357,574	639,289	1,036,420	1,949,602
Government-sponsored enterprise debt securities, net	133,987	2,471	73,823	2,898	4,670	8,804
Foreign currency denominated investments, net	−44,809	−2,057	−15,058	−1,610	−3,864	−9,358
Central bank liquidity swaps[1]	7,293	343	2,451	262	625	1,535
Total interest income	122,554,752	2,223,881	67,742,284	2,645,866	4,325,117	8,066,265
Income from priced services	456,257	0	133,470	0	0	0
Securities lending fees	28,780	551	15,688	629	985	1,876
Other income	18,706	306	11,310	354	564	1,067
Total other income	503,743	857	160,468	983	1,549	2,943
Total current income	**123,058,495**	**2,224,738**	**67,902,752**	**2,646,849**	**4,326,666**	**8,069,208**
Net expenses						
Salaries and other benefits	3,889,706	251,740	816,948	159,295	191,336	544,812
Building	318,190	31,931	67,735	14,351	16,719	35,249
Equipment	231,296	9,551	20,856	8,338	8,728	103,701
Software costs	357,046	8,030	35,748	4,043	11,109	196,517
Recoveries	−330,906	−41,029	−23,305	−20,493	−6,925	−51,790
Expenses capitalized[2]	−104,236	−14,447	−20,926	−439	−11,573	−3,737
Other expenses	730,576	125,379	272,121	54,564	48,830	−393,591
Total operating expenses before pension expense and reimbursements	5,091,672	371,155	1,169,177	219,659	258,224	431,161
System pension service costs[3]	954,132	0	954,132	0	0	0
Reimbursable services to government agencies	−786,316	−5,992	−187,011	−2,658	−79,561	−27,990
Operating expenses	5,259,488	365,163	1,936,298	217,001	178,663	403,171
Interest expense on securities sold under agreements to repurchase	414,273	6,923	234,170	8,750	15,074	27,760
Interest to depository institutions and others	5,332,558	113,761	2,784,931	136,410	241,173	418,908
Other expenses	1,608	31	878	34	55	104
Net expenses	11,007,927	485,878	4,956,277	362,195	434,965	849,943
Current net income	112,050,568	1,738,860	62,946,475	2,284,654	3,891,701	7,219,265

(continued)

Table G.9—*continued*

Item	Total	Boston	New York	Philadelphia	Cleveland	Richmond
Additions to (+) and deductions from (−) current net income						
Profit on sales of Treasury securities	23	0	13	0	0	2
Losses on sales of federal agency and government-sponsored enterprise mortgage-backed securities	−34,920	−1,231	−14,384	−928	−696	−1,851
Foreign currency translation (losses)	−1,856,034	−86,538	−623,734	−66,734	−159,372	−389,530
Other components of net benefit cost	366,295	−184	356,877	−25	−659	8,113
Net additions or deductions	−12,882	−8	−11,535	−8	−12	−539
Net additions or deductions to current net income	−1,537,518	−87,961	−292,763	−67,695	−160,739	−383,805
Assessments by Board						
Board expenditures[4]	970,000	43,823	325,476	35,742	84,840	201,017
Cost of currency	1,035,105	43,295	213,019	40,832	64,191	91,795
Consumer Financial Protection Bureau[5]	627,500	28,485	210,484	23,209	54,946	130,008
Assessments by the Board of Governors	2,632,605	115,603	748,979	99,783	203,977	422,820
Consolidated variable interest entities						
Net income from consolidated variable interest entities	975,095	804,156	170,939	0	0	0
Non-controlling interest in consolidated variable interest entities (income), net	−926,873	−787,991	−138,882	0	0	0
Reserve Bank and consolidated variable interest entities net income before providing for remittances to the Treasury	107,928,666	1,551,461	61,936,791	2,117,175	3,526,985	6,412,639
Earnings remittances to the Treasury	109,024,672	1,544,170	63,221,175	2,102,326	3,418,006	6,393,101
Net income after providing for remittances to the Treasury	−1,096,006	7,291	−1,284,384	14,849	108,980	19,538
Other comprehensive income (loss)	1,639,423	870	1,529,969	13,115	12,918	27,865
Comprehensive income	543,417	8,161	245,585	27,964	121,898	47,403
Distribution of comprehensive income						
Dividends on capital stock	583,417	25,776	176,264	21,374	48,880	107,258
Transferred to/from surplus and change in accumulated other comprehensive income	−40,000	−17,615	69,320	6,590	73,018	−59,854
Earnings remittances to the Treasury	109,024,672	1,544,170	63,221,175	2,102,326	3,418,006	6,393,101
Total distribution of comprehensive income	**109,568,089**	**1,552,331**	**63,466,759**	**2,130,290**	**3,539,904**	**6,440,505**

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.

Table G.9. Income and expenses of the Federal Reserve Banks, by Bank, 2021—*continued*
Thousands of dollars

Item	Atlanta	Chicago	St. Louis	Minneapolis	Kansas City	Dallas	San Francisco
Current income							
Interest income							
Primary, secondary, and seasonal loans	81	150	6	29	38	66	682
Other loans, net	3,755	2,892	3,428	60,347	8,639	3,742	57,215
Interest income on securities purchased under agreements to resell	42	32	9	5	9	27	70
Treasury securities, net	5,762,651	5,082,370	1,268,919	754,739	1,288,210	4,183,856	9,944,381
Federal agency and government-sponsored enterprise mortgage-backed securities, net	1,857,736	1,626,704	408,519	243,051	414,553	1,341,958	3,201,893
Government-sponsored enterprise debt securities, net	8,459	7,363	1,858	1,106	1,885	6,085	14,565
Foreign currency denominated investments, net	−2,075	−1,752	−823	−374	−482	−740	−6,617
Central bank liquidity swaps[1]	356	284	123	58	77	95	1,084
Total interest income	7,631,005	6,718,043	1,682,039	1,058,961	1,712,929	5,535,089	13,213,273
Income from priced services	230,672	92,115	0	0	0	0	0
Securities lending fees	1,871	1,586	409	244	414	1,321	3,207
Other income	1,043	899	230	137	235	749	1,812
Total other income	233,586	94,600	639	381	649	2,070	5,019
Total current income	**7,864,591**	**6,812,643**	**1,682,678**	**1,059,342**	**1,713,578**	**5,537,159**	**13,218,292**
Net expenses							
Salaries and other benefits	296,023	324,166	239,645	174,529	301,959	212,756	376,498
Building	18,920	32,151	17,715	12,765	19,698	20,500	30,456
Equipment	14,454	13,154	5,890	4,908	11,798	11,306	18,613
Software costs	16,855	7,037	6,735	3,516	31,249	7,411	28,797
Recoveries	−7,905	−22,886	−9,694	−15,323	−43,139	−31,832	−56,586
Expenses capitalized[2]	−1,797	−4,132	−2,534	−8,358	−19,016	−2,310	−14,969
Other expenses	171,149	80,485	186,340	16,665	33,748	45,921	88,964
Total operating expenses before pension expense and reimbursements	507,699	429,975	444,097	188,702	336,297	263,752	471,773
System pension service costs[3]	0	0	0	0	0	0	0
Reimbursable services to government agencies	−28,669	−3,403	−262,239	−42,870	−123,500	−20,163	−2,260
Operating expenses	479,030	426,572	181,858	145,832	212,797	243,589	469,513
Interest expense on securities sold under agreements to repurchase	24,273	22,607	5,401	3,205	5,501	18,320	42,289
Interest to depository institutions and others	183,042	428,403	59,333	44,332	67,425	195,031	659,809
Other expenses	104	89	23	14	24	74	178
Net expenses	686,449	877,671	246,615	193,383	285,747	457,014	1,171,789
Current net income	7,178,142	5,934,972	1,436,063	865,959	1,427,831	5,080,145	12,046,503

(continued)

Table G.9—*continued*

Item	Atlanta	Chicago	St. Louis	Minneapolis	Kansas City	Dallas	San Francisco
Additions to (+) and deductions from (−) current net income							
Profit on sales of Treasury securities	1	1	0	0	0	1	2
Profit Losses on sales of federal agency and government-sponsored enterprise mortgage-backed securities	−3,749	−2,050	−767	−463	−759	−1,992	−6,048
Foreign currency translation (losses)	−88,765	−72,342	−32,401	−15,040	−19,779	−26,667	−275,132
Other components of net benefit cost	1,526	−1,008	3,167	555	−4,001	3,283	−1,349
Net additions or deductions	−385	−24	−283	3	9	−39	−60
Net additions or deductions to current net income	−91,372	−75,423	−30,284	−14,945	−24,530	−25,414	−282,587
Assessments by Board							
Board expenditures[4]	43,896	37,883	18,322	6,945	10,563	18,841	142,650
Cost of currency	152,215	90,103	32,839	19,865	33,526	96,006	157,419
Consumer Financial Protection Bureau[5]	28,467	24,477	11,787	4,351	6,830	12,184	92,274
Assessments by the Board of Governors	224,578	152,463	62,948	31,161	50,919	127,031	392,343
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	6,862,191	5,707,086	1,342,831	819,852	1,352,382	4,927,701	11,371,572
Earnings remittances to the Treasury	6,930,134	5,693,612	1,319,510	850,941	1,352,939	4,879,302	11,319,456
Net income after providing for remittances to the Treasury	−67,943	13,474	23,321	−31,089	−557	48,399	52,115
Other comprehensive income (loss)	9,588	6,912	−350	15,555	10,635	11,219	1,126
Comprehensive income	−58,355	20,386	22,971	−15,534	10,078	59,618	53,242
Distribution of comprehensive income							
Dividends on capital stock	29,586	30,611	16,155	8,349	13,887	19,615	85,662
Transferred to/from surplus and change in accumulated other comprehensive income	−87,941	−10,225	6,817	−23,883	−3,809	40,002	−32,420
Earnings remittances to the Treasury	6,930,134	5,693,612	1,319,510	850,941	1,352,939	4,879,302	11,319,456
Total distribution of comprehensive income	**6,871,779**	**5,713,998**	**1,342,482**	**835,407**	**1,363,017**	**4,938,919**	**11,372,698**

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.

Table G.10. Income and expenses of the Federal Reserve Banks, 1914–2021

Thousands of dollars

Federal Reserve Bank and period	Current income	Net expenses	Net additions or deductions (−)[1, 2]	Assessments by the Board of Governors			Other comprehensive income (loss)	Dividends paid	Distributions to the U.S. Treasury		Transferred to/from surplus[5]	Transferred to/from surplus and change in accumulated other comprehensive income[6]
				Board expenditures	Costs of currency	Consumer Financial Protection Bureau and Office of Financial Research[3]			Statutory transfers[4]	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, 2]	Assessments by the Board of Governors			Other comprehensive income (loss)	Dividends paid	Distributions to the U.S. Treasury		Transferred to/from surplus[5]	Transferred to/from surplus and change in accumulated other comprehensive income[6]
				Board expenditures	Costs of currency	Consumer Financial Protection Bureau and Office of Financial Research[3]			Statutory transfers[4]	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, 2]	Assessments by the Board of Governors			Other compre-hensive income (loss)	Dividends paid	Distributions to the U.S. Treasury		Transferred to/from surplus[5]	Trans-ferred to/from surplus and change in accumu-lated other compre-hensive income[6]
				Board expendi-tures	Costs of currency	Consumer Financial Protection Bureau and Office of Financial Research[3]			Statutory transfers[4]	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, 2]	Assessments by the Board of Governors			Other compre-hensive income (loss)	Dividends paid	Distributions to the U.S. Treasury		Transferred to/from surplus[5]	Trans-ferred to/from surplus and change in accumu-lated other compre-hensive income[6]
				Board expendi-tures	Costs of currency	Consumer Financial Protection Bureau and Office of Financial Research[3]			Statutory transfers[4]	Interest on Federal Reserve notes		
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
Total 1914–2021	**2,084,162,241**	**287,981,632**	**39,532,652**	**14,017,118**	**19,482,577**	**5,496,877**	**−930,460**	**26,402,194**	**558,222,744**	**1,198,433,402**	**−4**	**12,727,389[7]**
Aggregate for each Bank, 1914–2021												
Boston	70,617,546	9,313,076	343,552	610,116	1,007,336	244,491	16,241	1,156,752	13,316,590	44,842,511	135	500,468
New York	977,689,395	136,554,303	27,216,053	4,105,218	4,957,821	1,780,947	−1,217,309	7,492,074	298,926,827	545,077,826	−433	4,793,662
Philadelphia	62,987,155	9,343,663	792,580	805,781	879,147	324,276	25,483	1,792,803	13,933,479	36,308,189	291	418,097
Cleveland	83,035,070	9,033,414	694,154	1,079,213	1,131,760	440,272	36,546	1,979,028	19,517,876	49,612,575	−10	964,710
Richmond	148,492,186	21,093,144	2,272,218	2,729,578	1,674,986	1,167,850	79,076	5,310,948	35,130,242	81,295,580	−72	2,461,326
Atlanta	137,800,678	18,872,326	1,762,528	885,925	2,230,643	303,036	51,427	1,703,512	39,461,437	75,616,315	5	571,214
Chicago	160,992,680	20,096,594	1,896,899	856,585	1,957,707	188,491	24,237	1,549,885	27,781,829	109,806,844	12	673,491
St. Louis	46,966,231	5,696,456	413,475	228,266	667,965	66,206	27,018	419,831	8,917,917	31,149,772	−27	242,440
Minneapolis	26,193,791	5,395,082	419,989	224,366	380,703	32,525	24,336	472,842	4,504,264	15,436,029	65	187,651
Kansas City	51,976,545	8,045,857	575,478	240,913	677,683	55,955	−7,556	461,957	8,392,996	34,476,668	−9	190,587
Dallas	86,126,145	10,556,608	1,120,727	355,674	1,273,259	82,090	30,627	662,432	24,126,628	49,889,286	55	289,028
San Francisco	231,284,809	33,981,110	2,024,999	1,895,486	2,643,565	810,745	−20,585	3,400,129	64,212,662	124,921,807	−17	1,434,718
Total	**2,084,162,241**	**287,981,632**	**39,532,652**	**14,017,118**	**19,482,577**	**5,496,877**	**−930,460**	**26,402,194**	**558,222,744**	**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 The Federal Reserve Bank of Boston is the primary beneficiary of MS Facilities LLC (Main Street Lending Program), and the Federal Reserve Bank of New York is the primary beneficiary of Commercial Paper Funding Facility LLC, Corporate Credit Facilities LLC, Municipal Liquidity Facility LLC, and Term Asset-Backed 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.

3 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.

4 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.

5 Transfers made under section 13b of the Federal Reserve Act.

6 Transfers made under section 7 of the Federal Reserve Act. Beginning in 2006, accumulated other comprehensive income is reported as a component of surplus.

7 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, 2018–21

Operation	2021	2020	2019	2018
Millions of pieces				
Currency processed	28,172	26,596	33,042	34,312
Currency destroyed	1,351	2,044 r	5,141 r	4,820 r
Coin received	30,370	33,994	56,101	56,012
Checks handled				
U.S. government checks[1]	131	83	52	53
Postal money orders	70	74	80	83
Commercial	3,657	3,767	4,389	4,740
Securities transfers[2]	19	21	19	17
Funds transfers[3]	204	184	168	158
Automated clearinghouse transactions				
Commercial	17,895	16,549	15,584	14,692
Government	1,959	1,878	1,704	1,668
Millions of dollars				
Currency processed	657,495	561,278	665,246	659,126
Currency destroyed	20,445	30,560 r	84,323 r	98,682 r
Coin received	2,811	3,294	5,408	5,387
Checks handled				
U.S. government checks[1]	272,637	205,905	149,337	148,149
Postal money orders	20,161	20,558	21,412	21,034
Commercial	8,757,539	7,874,721	8,317,894	8,485,159
Securities transfers[2]	310,827,220	361,728,932	345,813,248	296,335,209
Funds transfers[3]	991,810,545	840,483,038	695,835,129	716,211,759
Automated clearinghouse transactions				
Commercial	31,446,232	31,446,232	28,081,631	25,860,072
Government	8,118,875	6,852,715	5,787,018	5,515,114

[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.
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Table G.12. Number and annual salaries of officers and employees of the Federal Reserve Banks, December 31, 2021

Federal Reserve Bank (including branches)	President	Other officers		Employees				Total	
	Annual salary (dollars)[1]	Number	Annual salaries (dollars)[1]	Number			Annual salaries (dollars)[1, 3]	Number	Annual salaries (dollars)[1, 3]
				Full time	Part time	Temporary/ hourly[2]			
Boston[4]	0	117	32,667,033	1,091	7	8	144,227,933	1,223	176,894,966
New York	513,400	588	168,501,482	2,351	19	0	340,204,800	2,959	509,219,682
Philadelphia	448,200	73	17,612,000	788	7	19	91,088,224	888	109,148,424
Cleveland	441,400	93	22,349,890	1,013	16	27	108,624,044	1,150	131,415,334
Richmond	418,000	97	22,516,200	1,391	7	9	148,584,060	1,505	171,518,260
Atlanta	430,200	113	27,263,199	1,521	18	27	166,175,331	1,680	193,868,730
Chicago	464,000	148	38,335,628	1,454	23	0	181,297,649	1,626	220,097,277
St. Louis	416,300	107	26,609,700	1,280	18	12	135,880,826	1,418	162,906,826
Minneapolis	448,300	65	15,882,667	963	39	9	98,716,907	1,077	115,047,874
Kansas City	416,500	113	24,165,900	1,919	13	8	174,337,568	2,054	198,919,968
Dallas[5]	0	83	20,224,373	1,150	10	21	116,830,072	1,264	137,054,445
San Francisco	497,400	140	38,119,695	1,623	16	19	202,057,942	1,799	240,675,037
Federal Reserve Information Technology	n/a	79	19,629,300	1,352	1	2	179,947,466	1,434	199,576,766
Office of Employee Benefits	n/a	17	5,036,800	46	1	0	6,654,260	64	11,691,060
Total	**4,493,700**	**1,833**	**478,913,867**	**17,942**	**195**	**161**	**2,094,627,082**	**20,141**	**2,578,034,648**

Note: Components may not sum to totals because of rounding.
1 Annual salary (excluding outside agency costs) based on salaries in effect on December 31, 2021.
2 Temporary/hourly employees are paid by the Bank, generally work less than 780 hours, and are employed on a temporary basis (such as interns).
3 Annual salary totals include pandemic premium pay for essential staff as a result of COVID-19.
4 FRB Boston president retired in September 2021.
5 FRB Dallas president retired in October 2021.
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, 2021
Thousands of dollars

Federal Reserve Bank or Branch	Acquisition costs			Net book value	Other real estate
	Land	Buildings (including vaults)[1]	Total[2]		
Boston	27,293	215,015	242,308	77,945	n/a
New York	68,398	667,323	735,721	368,494	n/a
Philadelphia	8,146	200,294	208,440	112,633	n/a
Cleveland	4,219	165,035	169,254	88,793	n/a
Cincinnati	5,126	33,826	38,952	10,350	n/a
Richmond	32,524	205,747	238,271	105,707	n/a
Baltimore	7,917	44,505	52,422	22,213	n/a
Charlotte	7,884	46,877	54,761	25,726	n/a
Atlanta	25,329	165,748	191,077	117,363	n/a
Birmingham	5,347	13,433	18,780	9,499	n/a
Jacksonville	2,185	28,315	30,500	13,087	n/a
New Orleans	3,789	16,752	20,541	8,314	n/a
Miami	4,664	38,756	43,420	17,446	n/a
Chicago	7,460	267,954	275,414	100,656	n/a
Detroit	13,371	76,869	90,240	62,210	n/a
St. Louis	9,942	156,939	166,881	79,823	n/a
Memphis	2,472	22,382	24,854	6,766	n/a
Minneapolis	28,099	124,960	153,059	90,655	n/a
Helena	3,316	10,398	13,714	6,281	n/a
Kansas City	38,985	220,088	259,073	192,438	n/a
Denver	4,957	17,795	22,752	12,185	n/a
Omaha	4,874	13,936	18,810	11,132	n/a
Dallas	37,960	160,255	198,215	110,731	n/a
El Paso	262	6,207	6,469	1,458	n/a
Houston	32,323	106,261	138,584	96,838	n/a
San Francisco	20,988	153,752	174,740	70,462	n/a
Los Angeles	5,217	80,641	85,858	36,813	n/a
Salt Lake City	1,294	6,508	7,802	1,897	n/a
Seattle	13,101	50,282	63,383	45,305	n/a
Phoenix	1,089	15,401	16,490	9,665	n/a
Total	**428,531**	**3,332,254**	**3,760,785**	**1,938,596**	**n/a**

1 Includes expenditures for construction at some offices, pending allocation to appropriate accounts.
2 Effective January 1, 2021, the Building machinery and equipment asset class was reclassified to furniture and equipment and is no longer included in premises of the Federal Reserve Banks and Branches.
n/a Not applicable.

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