



PUBLIC EDUCATION & OUTREACH

The Fed Explained

What the Central Bank Does



FEDERAL RESERVE SYSTEM PUBLICATION



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FEDERAL RESERVE

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1

Overview of the Federal Reserve System

The Federal Reserve performs five key functions in the public interest to promote the health of the U.S. economy and the stability of the U.S. financial system.

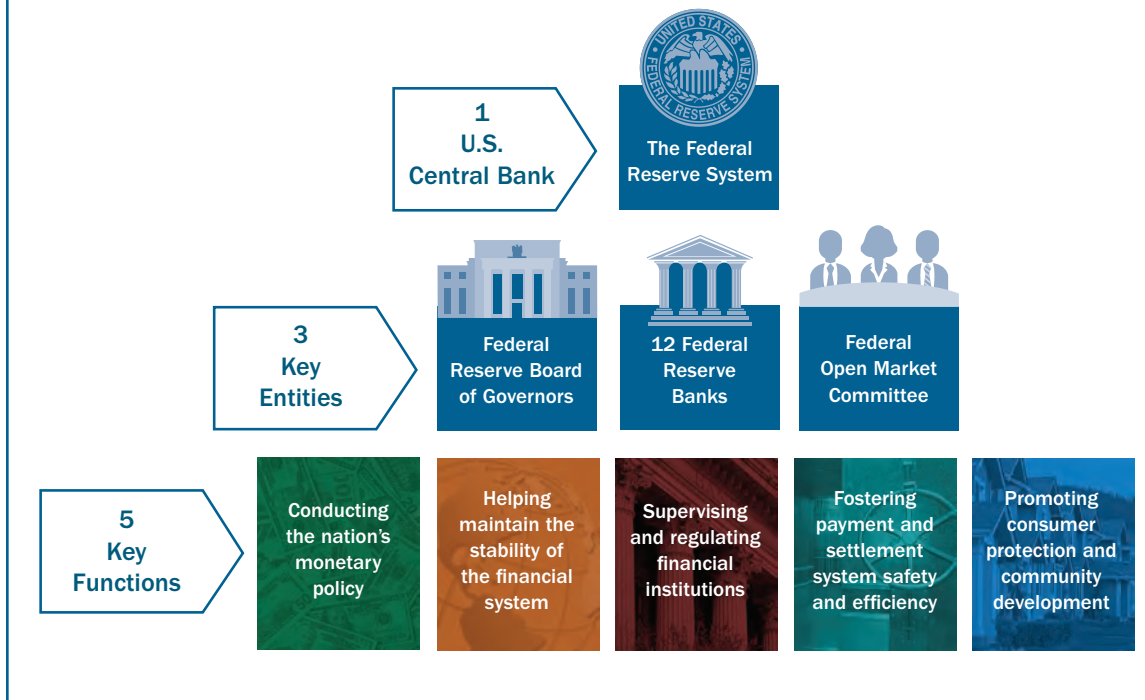
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The Federal Reserve System is the central bank of the United States. It performs five general functions to promote the effective operation of the U.S. economy and, more generally, the public interest. The Federal Reserve

- **conducts the nation's monetary policy** to promote maximum employment and stable prices in the U.S. economy;
- **promotes the stability of the financial system** and seeks to minimize and contain systemic risks through active monitoring and engagement in the U.S. and abroad;
- **promotes the safety and soundness of individual financial institutions** and monitors their impact on the financial system as a whole;
- **fosters payment and settlement system safety and efficiency** through services to the banking industry and the U.S. government that facilitate U.S.-dollar transactions and payments; and
- **promotes consumer protection and community development** through consumer-focused supervision and examination, research and analysis of emerging consumer issues and trends, community economic development activities, and the administration of consumer laws and regulations.

Figure 1.1. The Federal Reserve System

The Federal Reserve is unique among central banks. By statute, Congress provided for a central banking system with public and private characteristics. The System performs five functions in the public interest.



The U.S. Approach to Central Banking

The framers of the Federal Reserve Act purposely rejected the concept of a single central bank. Instead, they provided for a central banking “system” with three salient features: (1) a central governing Board, (2) a decentralized operating structure of 12 Reserve Banks, and (3) a combination of public and private characteristics.

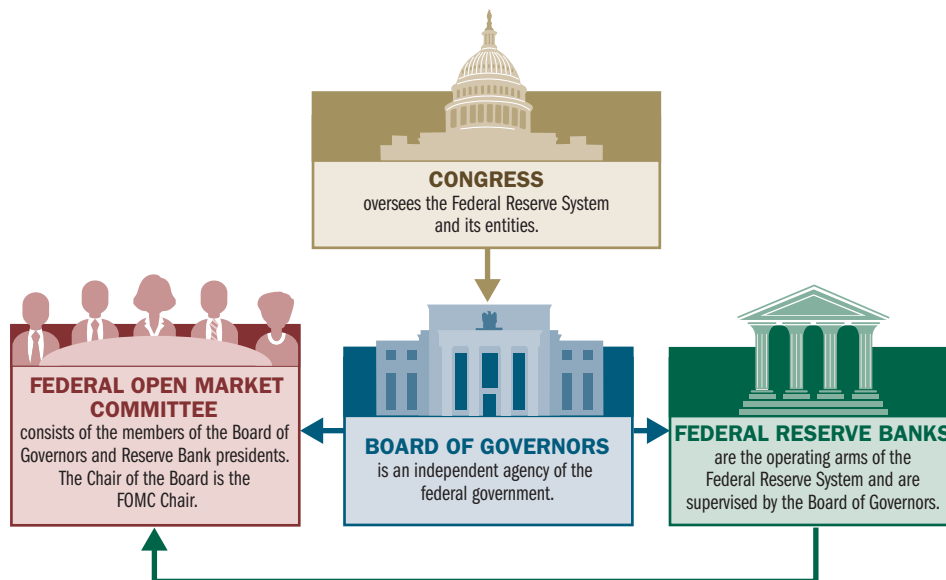
Although parts of the Federal Reserve System share some characteristics with private-sector entities, the Federal Reserve was established to serve the public interest.

There are **three key entities in the Federal Reserve System**: the Federal Reserve Board of Governors (Board of Governors), the Federal Reserve Banks (Reserve Banks), and the Federal Open Market Committee (FOMC). The Board of Governors, an agency of the federal government that reports to and is directly accountable to Congress (**figure 1.2**), provides general guidance for the System and oversees the 12 Reserve Banks.

Within the System, certain responsibilities are shared between the Board of Governors in Washington, D.C., whose members are appointed by the President with the advice and consent of the Senate, and the Reserve Banks and Branches, which constitute the System’s operating presence around the country. While the Federal Reserve has frequent communication with executive branch and congressional officials, its decisions are made independently.

Figure 1.2. Three key entities, serving the public interest

The framers of the Federal Reserve Act developed a central banking system that would broadly represent the public interest.



The Decentralized System Structure and Its Philosophy

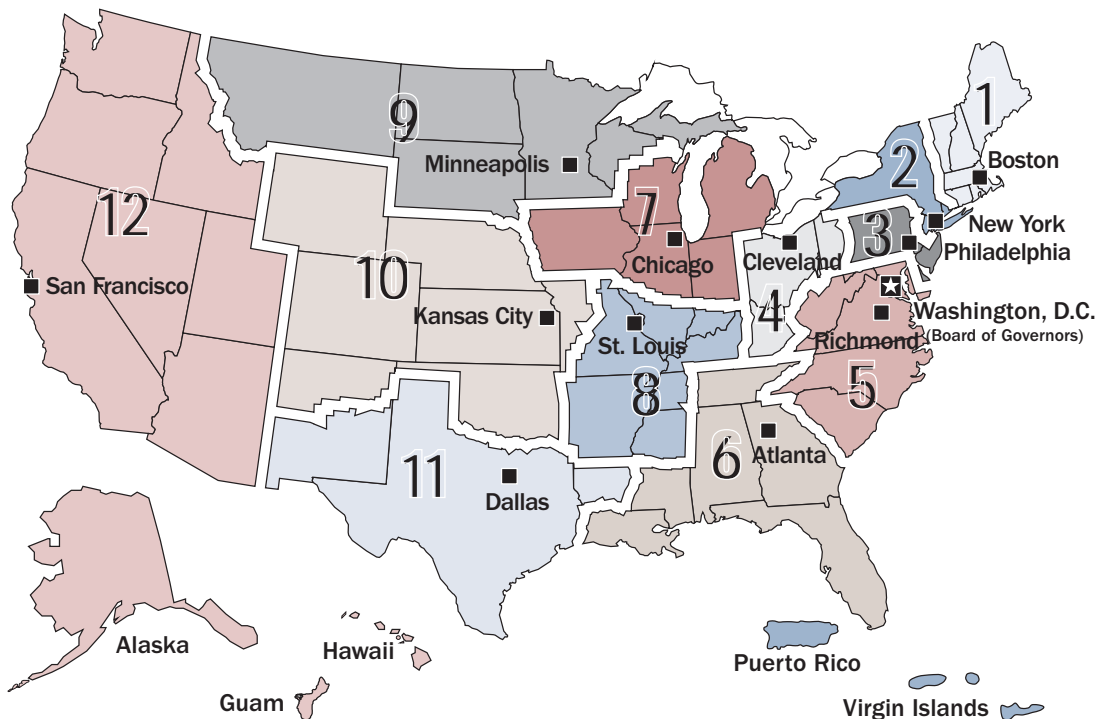
In establishing the Federal Reserve System, the United States was divided geographically into 12 Districts, each with a separately incorporated Reserve Bank. District boundaries were based on prevailing trade regions that existed in 1913 and related economic considerations, so they do not necessarily coincide with state lines (figure 1.3).

As originally envisioned, each of the 12 Reserve Banks was intended to operate independently from the other Reserve Banks. Variation was expected in discount rates—the interest rate that commercial banks were charged for borrowing funds from a Reserve Bank. The setting of a separately determined discount rate appropriate to each District was considered the most important tool of monetary policy at that time. The concept of national economic policymaking was not well developed, and the impact of open market operations—purchases and sales of U.S. government securities—on policymaking was less significant.

As the nation's economy became more integrated and more complex, through advances in technology, communications, transportation, and financial services, the effective conduct of monetary

Figure 1.3. Twelve Federal Reserve Districts operate independently but with supervision

Federal Reserve District boundaries are based on economic considerations; the Reserve Banks in each District operate independently but under the supervision of the Federal Reserve Board of Governors.



policy began to require increased collaboration and coordination throughout the System. This was accomplished in part through revisions to the Federal Reserve Act in 1933 and 1935 that together created the modern-day FOMC.

The Depository Institutions Deregulation and Monetary Control Act of 1980 (Monetary Control Act) introduced an even greater degree of coordination among Reserve Banks with respect to the pricing of financial services offered to depository institutions. There has also been a trend among Reserve Banks to centralize or consolidate many of their financial services and support functions and to standardize others. Reserve Banks have become more efficient by entering into intra-System service agreements that allocate responsibilities for services and functions that are national in scope among each of the 12 Reserve Banks.

The Reserve Banks: A Blend of Private and Governmental Characteristics

Pursuant to the Federal Reserve Act, each of the 12 Reserve Banks is separately incorporated and has a nine-member board of directors.

Commercial banks that are members of the Federal Reserve System hold stock in their District's Reserve Bank and elect six of the Reserve Bank's directors; three remaining directors are appointed by the Board of Governors. Most Reserve Banks have at least one Branch, and each Branch has its own board of directors. Branch directors are appointed by either the Reserve Bank or the Board of Governors.

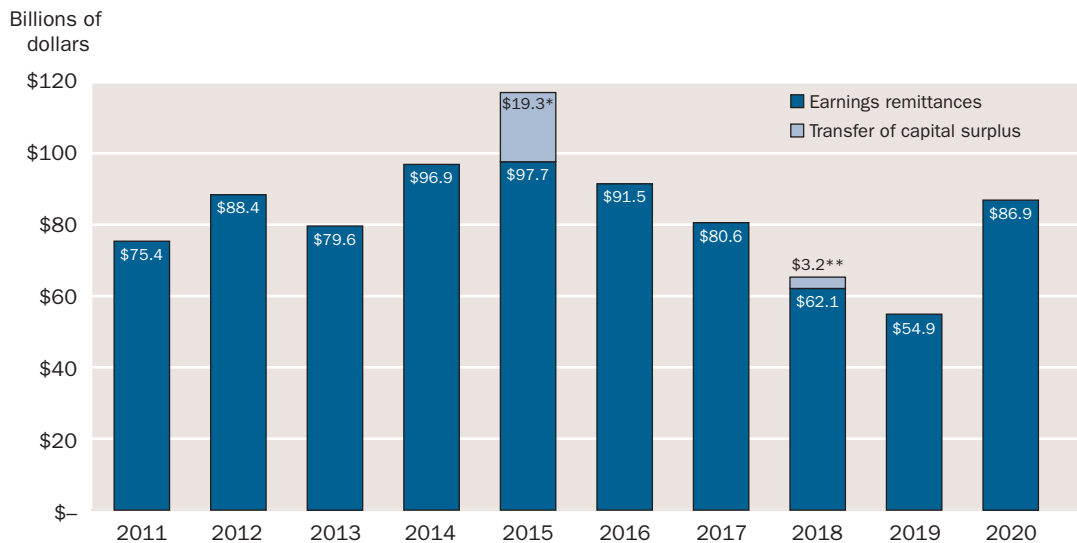
Directors serve as a link between the Federal Reserve and the private sector. As a group, directors bring to their duties a wide variety of experiences in the private sector, which gives them invaluable insight into the economic conditions of their respective Federal Reserve Districts. Reserve Bank head-office and Branch directors contribute to the System's overall understanding of the economy.

The Federal Reserve is not funded by congressional appropriations. Its operations are financed primarily from the interest earned on the securities it owns—securities acquired in the course of the Federal Reserve's open market operations. The fees received for priced services provided to depository institutions—such as check clearing, funds transfers, and automated clearinghouse operations—are another source of income; this income is used to cover the cost of those services. After payment of expenses and transfers to surplus (limited to an aggregate of \$6.785 billion), all the net earnings of the Reserve Banks are transferred to the U.S. Treasury ([figure 1.4](#)).

Despite the need for coordination and consistency throughout the Federal Reserve System, geographic distinctions remain important. Effective monetary policymaking requires knowledge and input about regional differences. For example, two directors from the same industry may have different opinions regarding the strength or weakness of that sector, depending on their regional perspectives. The decentralized structure of the System and its blend of private and public characteristics, envisioned by the System's creators, therefore, remain important features today.

Figure 1.4. Federal Reserve net earnings are paid to the U.S. Treasury

The Federal Reserve transfers its net earnings to the U.S. Treasury.



Source: Federal Reserve Board news release, January 11, 2021 (available in the News & Events section of the Federal Reserve Board's website, <https://www.federalreserve.gov/newsevents.htm>).

* The Reserve Banks transferred to the Treasury \$19.3 billion from their capital surplus on December 28, 2015, which was the amount necessary to reduce aggregate Reserve Bank surplus to the \$10 billion surplus limitation in the Fixing America's Surface Transportation Act.

** The Reserve Banks transferred to the Treasury \$3.175 billion from their capital surplus in 2018, of which \$2.5 billion was the amount necessary to reduce aggregate Reserve Bank surplus to the \$7.5 billion surplus limitation in the Bipartisan Budget Act of 2018 and \$675 million was the amount necessary to further reduce aggregate Reserve Bank surplus to the \$6.825 billion surplus limitation in the Economic Growth, Regulatory Relief, and Consumer Protection Act.

2

The Three Key System Entities

The Board of Governors, the Federal Reserve Banks, and the Federal Open Market Committee work together to promote the health of the U.S. economy and the stability of the U.S. financial system.

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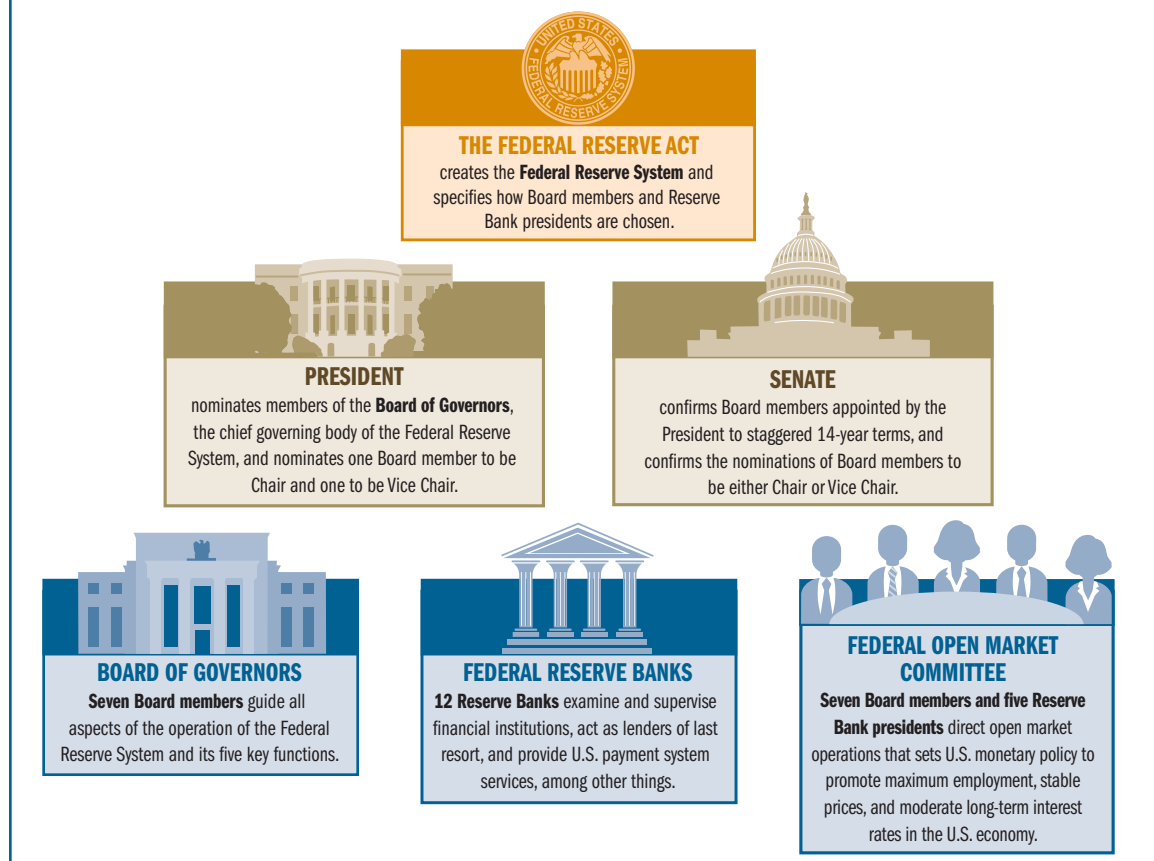
Three key Federal Reserve entities—the Federal Reserve Board of Governors (Board of Governors), the Federal Reserve Banks (Reserve Banks), and the Federal Open Market Committee (FOMC)—make decisions that help promote the health of the U.S. economy and the stability of the U.S. financial system.

The Federal Reserve Board: Selection and Function

The Board of Governors—located in Washington, D.C.—is the governing body of the Federal Reserve System. It is run by seven members, or “governors,” who are nominated by the President of the United States and confirmed in their positions by the Senate. The Board of Governors guides the operation of the Federal Reserve System to promote the goals and fulfill the responsibilities given to the Federal Reserve by the Federal Reserve Act.

Figure 2.1. How the Federal Reserve operates within the U.S. government framework

A statutory framework established by Congress guides the operation of the Federal Reserve System.



All of the members of the Board serve on the FOMC, which is the body within the Federal Reserve that sets monetary policy (see [“The Federal Open Market Committee: Selection and Function”](#) on page 12). Each member of the Board of Governors is appointed for a 14-year term; the terms are staggered so that one term expires on January 31 of each even-numbered year. After serving a full 14-year term, a Board member may not be reappointed. If a Board member leaves the Board before his or her term expires, however, the person nominated and confirmed to serve the remainder of the term may later be appointed to a full 14-year term ([figure 2.2](#)).

The Chair and Vice Chair of the Board are also appointed by the President and confirmed by the Senate, but serve only four-year terms. They may be reappointed to additional four-year terms. The nominees to these posts must already be members of the Board or must be simultaneously appointed to the Board.

The Board oversees the operations of the 12 Reserve Banks and shares with them the responsibility for supervising and regulating certain financial institutions and activities (see [section 5](#), “Supervising and Regulating Financial Institutions and Activities,” on page 62). The Board also provides general guidance, direction, and oversight when the Reserve Banks lend to depository institutions and when the Reserve Banks provide financial services to depository institutions and the federal government. The Board also has broad oversight responsibility for the operations and activities of the Reserve Banks (see [section 6](#), “Fostering Payment and Settlement System Safety and Efficiency,” on page 84). This authority includes oversight of the Reserve Banks’ services to depository institutions and to the U.S. Treasury, and of the Reserve Banks’ examination and supervision of various financial institutions. As part of this oversight, the Board reviews and approves the budgets of each of the Reserve Banks.

The Board also helps to ensure that the voices and concerns of consumers and communities are heard at the central bank by conducting consumer-focused supervision, research, and policy analysis, and, more generally, by promoting a fair and transparent consumer financial services market (see [section 7](#), “Promoting Consumer Protection and Community Development,” on page 112).

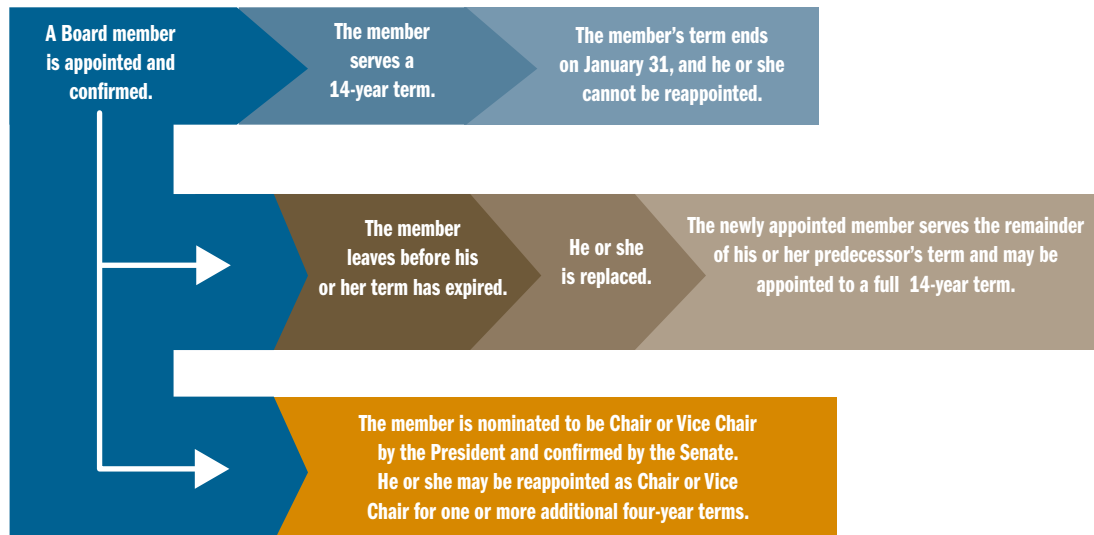
The Federal Reserve Banks: Structure and Function

The 12 Reserve Banks and their 24 Branches are the operating arms of the Federal Reserve System. Each Reserve Bank operates within its own particular geographic area, or district, of the United States.

Each Reserve Bank gathers data and other information about the businesses and the needs of local communities in its region. That information is then factored into monetary policy decisions by the FOMC and other decisions made by the Board of Governors.

Figure 2.2. Serving on the Board of Governors

The Federal Reserve's governors serve staggered 14-year terms and may not be reappointed; all governors—including the Chair and Vice Chair—are appointed by the President and confirmed by the Senate.



Reserve Bank Leadership

As set forth in the Federal Reserve Act, each Reserve Bank is subject to “the supervision and control of a board of directors.” Much like the boards of directors of private corporations, Reserve Bank boards are responsible for overseeing their Bank’s administration and governance, reviewing the Bank’s budget and overall performance, overseeing the Bank’s audit process, and developing broad strategic goals and directions. However, unlike private corporations, Reserve Banks are not operated in the interest of shareholders, but rather in the public interest.

Each year, the Board of Governors designates one chair and one deputy chair for each Reserve Bank board from among its Class C directors. The Federal Reserve Act requires that the chair of a Reserve Bank’s board be a person of “tested banking experience,” a term which has been interpreted as requiring familiarity with banking or financial services.

Each Reserve Bank board delegates responsibility for day-to-day operations to the president of that Reserve Bank and his or her staff. Reserve Bank presidents act as chief executive officers of their respective Banks and also serve, in rotation, as voting members of the FOMC. Presidents are nominated by a Bank’s Class B and C directors and approved by the Board of Governors for five-year terms.

Reserve Bank Branches also have boards of directors. Pursuant to policy established by the Board of Governors, Branch boards must have either five or seven members. All Branch directors are appointed: the majority of directors on a Branch board are appointed by the Reserve Bank, and the remaining directors on the board are appointed by the Board of Governors. Each Branch board selects a chair from among those directors appointed by the Board of Governors. Unlike Reserve Bank directors, Branch directors are not divided into different classes. However, Branch directors must meet different eligibility requirements, depending on whether they are appointed by the Reserve Bank or the Board of Governors.

Reserve Bank and Branch directors are elected or appointed for staggered three-year terms. When a director does not serve a full term, his or her successor is elected or appointed to serve the unexpired portion of that term.

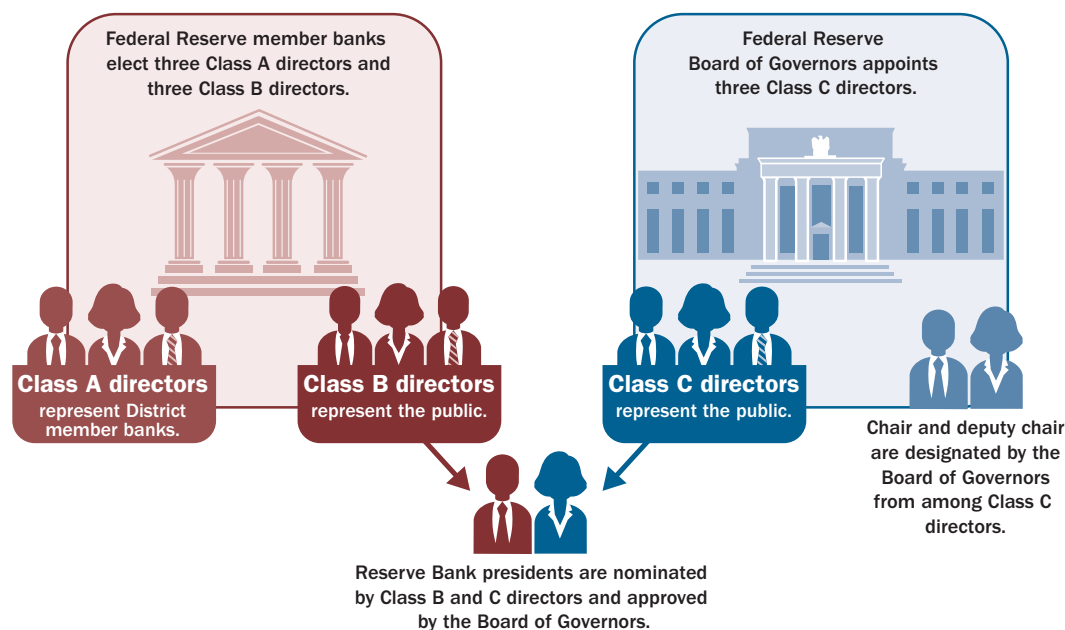
Reserve Bank Responsibilities

The Reserve Banks carry out Federal Reserve core functions by

1. **supervising and examining state member banks** (state-chartered banks that have chosen to become members of the Federal Reserve System), bank and thrift holding companies, and non-

Figure 2.3. Composition of Federal Reserve Bank boards of directors and selection of Reserve Bank presidents

The boards of directors of the Reserve Banks represent a cross-section of banking, commercial, agricultural, and industrial interests. Six of the nine members of each board of directors are chosen to represent the public interest; those six board directors nominate their Bank's president.



bank financial institutions that have been designated as systemically important under authority delegated to them by the Board;

2. **lending to depository institutions** to ensure liquidity in the financial system;
3. **providing key financial services** that undergird the nation's payment system, including distributing the nation's currency and coin to depository institutions, clearing checks, operating the Fed-Wire and automated clearinghouse (ACH) systems, and serving as a bank for the U.S. Treasury; and
4. **examining certain financial institutions** to ensure and enforce compliance with federal consumer protection and fair lending laws, while also promoting local community development.

In its role providing key financial services, the Reserve Bank acts, essentially, as a financial institution for the banks, thrifts, and credit unions in its District—that is, each Reserve Bank acts as a “bank for banks.” In that capacity, it offers (and charges for) services to these depository institutions similar to those that ordinary banks provide their individual and business customers: the equivalent of checking accounts; loans; coin and currency; safekeeping services; and payment services (such as the processing of checks and the making of recurring and nonrecurring small- and large-dollar payments) that help banks, and ultimately their customers, buy and sell goods, services, and securities.

In addition, through their leaders and their connections to, and interactions with, members of their local communities, Reserve Banks provide the Federal Reserve System with a wealth of information on conditions in virtually every part of the nation—information that is vital to formulating a national monetary policy that will help to maintain the health of the economy and the stability of the nation's financial system.

Want to learn more about Reserve Bank directors?

Reserve Bank and Branch directors play a number of roles at their Banks. To learn more about director responsibilities and requirements, see *Roles and Responsibilities of Federal Reserve Directors* in the About the Fed section of the Board's website, <https://www.federalreserve.gov/aboutthefed/directors/about.htm>.

Certain information gathered by the Reserve Banks from Reserve Bank directors and other sources is also shared with the public prior to each FOMC meeting in a report commonly known as the Beige Book. In addition, every two weeks, the board of each Reserve Bank recommends discount rates (interest rates to be charged for loans to depository institutions made through that Bank's discount window); these interest rate recommendations are subject to review and determination by the Board of Governors.

The Federal Open Market Committee: Selection and Function

The FOMC is the body of the Federal Reserve System that sets national monetary policy (figure 2.4). The FOMC makes all decisions regarding the appropriate position or “stance” of monetary policy to help move the economy toward the congressionally mandated goals of maximum em-

Want to learn more about the FOMC?

For more information about the FOMC, visit the About the Fed section of the Board’s website, <https://www.federalreserve.gov/aboutthefed/structure-federal-open-market-committee.htm>.

ployment and price stability. The Committee raises and lowers its target range for the policy rate, which is the federal funds rate (the rate at which depository institutions lend to each other), to achieve these dual objectives. At times, as an additional policy measure, the

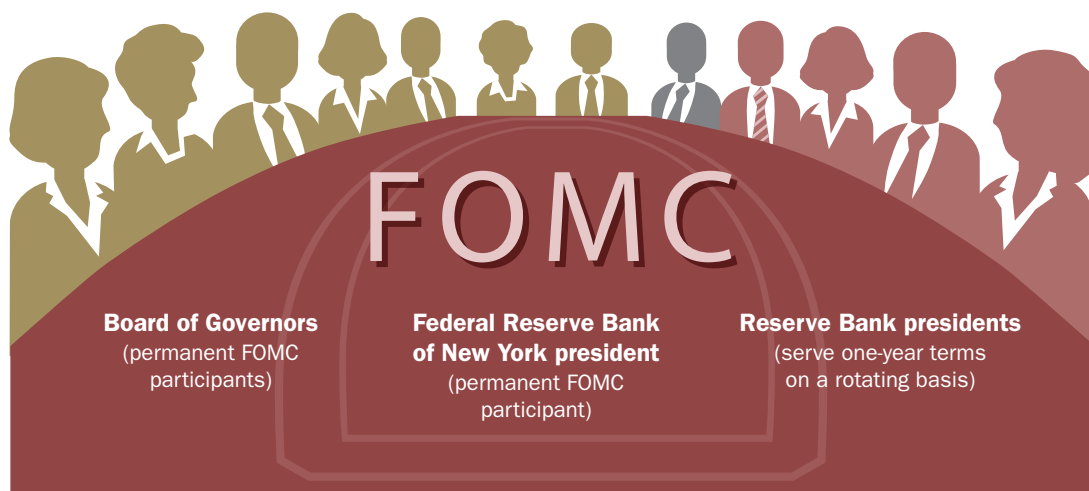
FOMC has used forward guidance about its policy rate to influence expectations about the future course of monetary policy. In addition, the Committee sometimes leans on balance sheet policy, where it adjusts the size and composition of the Federal Reserve’s asset holdings, to assist with market functioning and help foster accommodative financial conditions. Congress enacted legislation that created the FOMC as part of the Federal Reserve System in 1933 and 1935.

FOMC Membership

The FOMC consists of 12 voting members—the 7 members of the Board of Governors; the president of the Federal Reserve Bank of New York; and 4 of the remaining 11 Reserve Bank presidents, who serve one-year terms on a rotating basis.

Figure 2.4. Composition of the Federal Open Market Committee

The Federal Open Market Committee’s (FOMC) structure promotes the consideration of broad U.S. economic perspectives and the public interest in key monetary policy decisions made by the U.S. central bank.



All 12 of the Reserve Bank presidents attend FOMC meetings and participate in FOMC discussions, but only the presidents who are Committee members at the time may vote on policy decisions.

By law, the FOMC determines its own internal organization and, by tradition, the FOMC elects the Chair of the Board of Governors as its chair and the president of the Federal Reserve Bank of New York as its vice chair. FOMC meetings are typically held eight times each year in Washington, D.C., and at other times as needed.

FOMC Responsibilities

Once the FOMC determines the appropriate stance of policy, it must then make sure this stance is effectively transmitted to financial markets. The Board and FOMC have many monetary policy implementation tools at their disposal. Key tools include the Federal Reserve's administered interest rates and open market purchases and sales of securities (see [section 3](#), "Conducting Monetary Policy," on page 16). The FOMC also directs operations undertaken by the Federal Reserve in foreign exchange markets and authorizes currency swap programs with foreign central banks.

Other Significant Entities Contributing to Federal Reserve Functions

Two other groups play important roles in the Federal Reserve System's core functions:

(1) depository institutions—banks, thrifts, and credit unions; and (2) Federal Reserve System advisory committees, which make recommendations to the Board of Governors and to the Reserve Banks regarding the System's responsibilities.

Depository Institutions

Depository institutions offer transaction, or checking, accounts to the public and may maintain accounts of their own at their local Reserve Banks. Depository institutions receive interest on the reserve balances they hold in their Reserve Bank accounts. Interest on reserves is a key tool for monetary policy implementation (see [section 3](#), "Conducting Monetary Policy," on page 16 for more information about the conduct of monetary policy).

Advisory Councils

Five advisory committees assist and advise the Board on matters of public policy.

1. **Federal Advisory Council (FAC).** This council, established by the Federal Reserve Act, comprises 12 representatives of the banking industry. The FAC ordinarily meets with the Board four times

a year, as required by law. Annually, each Reserve Bank chooses one person to represent its District on the FAC. FAC members customarily serve three one-year terms and elect their own officers.

2. **Community Depository Institutions Advisory Council (CDIAC).** The CDIAC was originally established by the Board of Governors to obtain information and views from thrift institutions (savings and loan institutions and mutual savings banks) and credit unions. More recently, its membership has expanded to include community banks. Like the FAC, the CDIAC provides the Board of Governors with firsthand insight and information about the economy, lending conditions, and other issues.
3. **Model Validation Council.** This council was established by the Board of Governors in 2012 to provide expert and independent advice on its process to rigorously assess the models used in stress tests of banking institutions. Stress tests are required under the Dodd-Frank Wall Street Reform and Consumer Protection Act. The council is intended to improve the quality of stress tests and thereby strengthen confidence in the stress testing program. (For more information about stress tests, see “[Capital Planning and Stress Testing](#)” on page 77.)
4. **Community Advisory Council (CAC).** This council was formed by the Federal Reserve Board in 2015 to offer diverse perspectives 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 CAC complements the FAC and CDIAC, whose members represent depository institutions. The CAC meets semiannually with members of the Board of Governors. The 15 CAC members serve staggered three-year terms and are selected by the Board through a public nomination process.
5. **Insurance Policy Advisory Committee (IPAC).** This council was established at the Board of Governors in 2018 by section 211(b) of the Economic Growth, Regulatory Relief, and Consumer Protection Act. The IPAC provides information, advice, and recommendations to the Board on international insurance capital standards and other insurance issues.

More on Federal Reserve Advisory Councils

For a current roster of Federal Reserve advisory council members, visit the About the Fed section of the Board's public website at <https://www.federalreserve.gov/aboutthefed/advisorydefault.htm>.

Reserve Banks also have their own advisory committees. Perhaps the most important of these are committees that advise the Banks on agricultural, small business, and labor matters. The Federal Reserve Board solicits the views of each of these committees biannually.

3

Conducting Monetary Policy

The Federal Reserve sets U.S. monetary policy to promote maximum employment and stable prices in the U.S. economy.

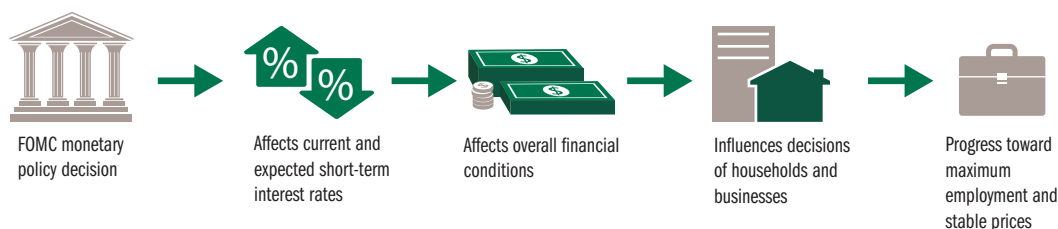
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What is monetary policy? It is the Federal Reserve's actions, as a central bank, to achieve the "dual mandate" goals specified by Congress: maximum employment and stable prices in the United States.

The Federal Reserve conducts monetary policy by using a variety of tools to manage financial conditions that encourage progress toward its dual mandate objectives. Monetary policy most directly affects the current and expected future path of short-term interest rates; the anticipated path of short-term interest rates then affects overall financial conditions including longer-term interest rates, stock prices, the exchange value of the dollar, and many other asset prices. Through these channels, monetary policy influences the decisions of households and businesses, thus affecting overall spending, investment, production, employment, and inflation in the United States (figure 3.1).

Figure 3.1. The Fed's statutory mandate: maximum employment and stable prices

The Federal Reserve conducts monetary policy in pursuit of the goals set for it by Congress. The mandated goals are considered essential to a well-functioning economy for households and businesses.



Conducting monetary policy effectively involves a number of important elements including a basic strategy that guides the adjustment of the stance of policy over time, a policy process involving the coordinated actions of the Federal Reserve's two decisionmaking bodies—the Board of Governors (Board) and the Federal Open Market Committee (FOMC)—a communications effort with the public to describe the rationale for the Federal Reserve's policy decisions, a range of tools used to implement the desired stance of policy, and an institutional framework that involves appropriate independence of the Federal Reserve in conducting policy while remaining fully accountable to Congress and the American people for its actions.

The Federal Reserve's Monetary Policy Mandate and Strategy and Why It Matters

The Federal Reserve was created by Congress in 1913 to provide the nation with a safer, more flexible, and more stable monetary and financial system. In 1977, Congress amended the Federal Reserve Act (FRA) to provide greater clarity about the goals of monetary policy. The amended FRA directs the Board of Governors and the FOMC to conduct monetary policy "so as to promote

effectively the goals of maximum employment, stable prices, and moderate long-term interest rates.”

Because long-term interest rates remain moderate in a stable economy with low expected inflation, this set of goals is often referred to as the dual mandate, comprising the coequal objectives of maximum employment and price stability. This dual mandate still exists today and ties monetary policy to the broader goal of fostering a productive and stable U.S. economy.

FOMC composition helps ensure broad perspective

The FOMC consists of the seven members of the Board of Governors; the president of the Federal Reserve Bank of New York; and 4 of the remaining 11 Reserve Bank presidents, who serve one-year terms on a rotating basis. See [section 1](#) on page vi for an overview of the Federal Reserve System and the FOMC.

Though Congress specifies the goals for monetary policy, it established the Federal Reserve as an independent agency to ensure that its decisions are based on facts and objective analysis and serve the best interests of all Americans. Studies have shown that central bank independence is an important factor that supports the ability of monetary policy to achieve solid economic performance and stable prices over time. At the same time, the Federal Reserve must be accountable to Congress and the American people for its actions. It does so by being transparent about its policy deliberations and actions through a range of official communications.

Understanding How the Fed Interprets and Achieves Its Maximum Employment and Price Stability Mandates

To promote public understanding of how the Federal Reserve interprets its statutory mandate, the FOMC released its Statement on Longer-Run Goals and Monetary Policy Strategy for the first time in January 2012. The statement, which was reaffirmed every January until 2020, lays out the goals for monetary policy, articulates the policy framework the Committee uses, and serves as the foundation for the Committee’s policy actions. It is also intended to enhance the transparency, accountability, and effectiveness of monetary policy.

Fed Chair on accountability and transparency

“We are committed to providing clear explanations about our policies and activities. Congress has given us an important degree of independence so that we can effectively pursue our statutory goals based on objective analysis and data. We appreciate that our independence brings with it an obligation for transparency so that you and the public can hold us accountable.”

Chair Jerome Powell, July 11, 2019

<https://www.federalreserve.gov/newsevents/testimony/powell20190710a.htm>

In August 2020, the Committee released a revised statement after conducting an 18-month review of its strategic framework for monetary policy. The new statement reaffirmed many key aspects of the previous statement but also included some innovations to reflect important changes in the economy that have become apparent in recent years. In particular, the Committee acknowledged that the level of the federal funds rate consistent with maximum employment and price stability over the longer run has declined relative to its historical average and so the federal funds rate is likely to be constrained by its effective lower bound more frequently than in the past. Reflecting this possible outcome, the Committee stated that it is prepared to use its full range of tools to achieve its maximum employment and price stability goals.

A fresh look at the monetary policy framework

In 2019, the Fed launched a comprehensive and public review of the monetary policy framework—the strategy, tools, and communication practices—it employs to achieve its mandate. See the Board’s website for more information on the process and results:

<https://www.federalreserve.gov/monetarypolicy/review-of-monetary-policy-strategy-tools-and-communications.htm>.

Employment. In the statement, the FOMC recognized that the maximum level of employment is a broad-based and inclusive goal that is not directly measurable and changes over time for reasons unrelated to monetary policy. Consequently, the Committee does not set a fixed goal for employment but bases its policy decisions on assessments of the shortfalls of employment from its maximum level. The Committee considers a wide range of indicators in making these assessments.

Inflation. In the statement, the Committee reaffirmed its judgment that inflation at the rate of 2 percent, as measured by the annual change in the price index for personal consumption expenditures, is most consistent over the longer run with the Federal Reserve’s statutory mandate. The Committee noted that longer-term inflation expectations that are well anchored at 2 percent foster price stability and moderate long-term interest rates and enhance the Committee’s ability to promote maximum employment in the face of significant economic disturbances. In order to anchor longer-term inflation expectations at this level, the Committee noted that it seeks to achieve inflation that averages 2 percent over time.

Working toward the two goals. The statement noted that in setting monetary policy, the FOMC seeks over time to mitigate shortfalls of employment from the Committee’s assessment of its maximum level and deviations of inflation from its longer-run goal. Most of the time, the Federal Reserve’s goals for employment and inflation are complementary. The FOMC could, however, face situations where its goals are pulling policy in opposite directions. In these circumstances, the Committee indicated that it will take into account the employment shortfalls and inflation deviations as well as the potentially different time horizons over which employment and inflation are projected to return to their desired levels.

The Conduct of Monetary Policy

Monetary policy affects the U.S. economy—and the achievement of the dual mandate—primarily through its influence on interest rates and overall financial conditions. With this in mind, the FOMC decides on the appropriate position or “stance” of monetary policy. Over time, the Committee has raised and lowered its target range for the policy rate, which is the federal funds rate (figure 3.2).

When the FOMC changes the target range for the federal funds rate, other interest rates and financial conditions more broadly adjust in response, thus affecting household and business spending decisions (see figure 3.1).

Short-term interest rates. Short-term interest rates—for example, the rate of return paid to holders of U.S. Treasury bills or commercial paper (a short-term debt security) issued by private companies—are affected by changes in the target range for the federal funds rate. Short-term interest

Monetary policy: Easing and tightening defined

The FOMC changes monetary policy primarily by raising or lowering its target range for the federal funds rate. Lowering the target range represents an “easing” of monetary policy, while increasing the target range is a “tightening” of policy.

rates would decline if the FOMC reduced its target range for the federal funds rate, or if unfolding events or Federal Reserve communications led the public to think that the FOMC would soon reduce the target range for the federal funds rate to a level lower than previously expected. Conversely, short-term interest

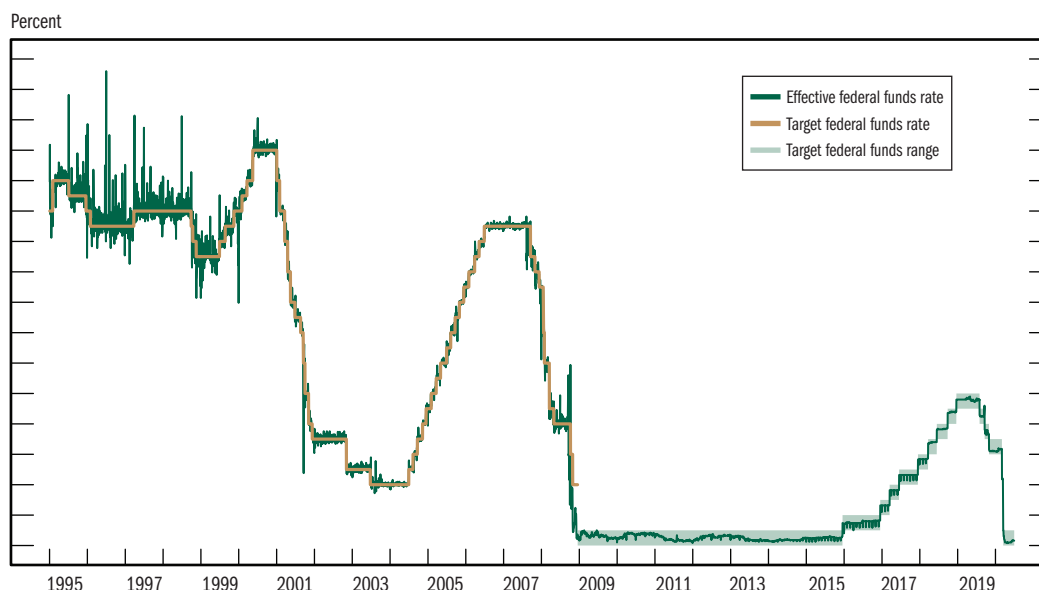
rates would rise if the FOMC increased the federal funds rate target range, or if unfolding events or Federal Reserve communications prompted the public to believe that the target range for the federal funds rate would soon be moved to a higher level than had been anticipated.

Longer-term interest rates and asset prices. Longer-term interest rates and the prices for a wide range of financial and nonfinancial assets, including stocks, bonds, and real estate, respond to changes in the current and expected path of the federal funds rate. That is, medium- and longer-term interest rates are affected by how people expect the federal funds rate to change in the future. For example, if borrowers and lenders think, today, that the FOMC is likely to lower its target for the federal funds rate substantially over the next several years, medium- and longer-term interest rates today will incorporate those expectations, and those rates then will be lower than would otherwise be the case.

Generally speaking, the effect on short-term interest rates of a single change in the FOMC’s target range for the federal funds rate will be somewhat larger than the effect on longer-term rates because long-term rates typically reflect the expected course of short-term rates over a long period.

Figure 3.2. The federal funds rate over time

The effective federal funds rate is the interest rate at which depository institutions—banks, savings institutions (thrifts), and credit unions—and government-sponsored enterprises borrow from and lend to each other overnight to meet short-term business needs. The target for the federal funds rate—which is set by the Federal Open Market Committee—has varied widely over the years in response to prevailing economic conditions.



However, the influence of a change in the FOMC's target range for the federal funds rate on longer-term interest rates can also be substantial if it has clear implications for the expected course of short-term rates over a considerable period.

Effects on spending. The level of longer-term interest rates affects household and business spending decisions, which in turn influence the level of economic output, employment, and inflation. For example, lowering mortgage rates will make buying a house more affordable, encouraging some individuals who were previously renters to purchase homes. As more individuals purchase homes, employment rises among homebuilders and many other types of home-supply industries. Lower mortgage rates may also allow some existing homeowners to refinance their mortgages at lower rates and thus free up income for spending on many other types of goods and services. In addition, lower interest rates on consumer loans may spur greater spending on durable goods (long-lasting manufactured goods) such as televisions and automobiles. The increased demand for all goods and services will boost employment across a variety of industries. Corresponding to the increased demand and change in employment, prices will adjust.

Factors Affecting the Stance of Monetary Policy

In determining the appropriate stance of monetary policy, the FOMC assesses how a variety of factors affect the current and projected path of the economy. These factors influence the FOMC's decisions regarding the appropriate stance of monetary policy.

Anticipated Factors

Many factors affect spending, output, employment, and inflation. Some of these factors can be anticipated and factored into the FOMC's deliberations. For example, the government influences demand in the economy through changes in taxes and spending programs, which are often anticipated. Indeed, the economic effects of a tax cut may precede its actual implementation if businesses and households increase their spending in anticipation of lower taxes. In addition, forward-looking financial markets may build anticipated fiscal events into the level and structure of interest rates.

Demand Shocks

Other factors that affect spending on goods and services can come as a surprise and can influence the economy in unforeseen ways. Examples of these “demand shocks” include shifts in consumer and business confidence or unexpected changes in the credit standards that banks and other lenders apply when they consider making loans. Once a demand shock is identified, the FOMC may seek to offset the effects of that shock on the economy by adjusting the stance of monetary policy.

For instance, in 2020, the global economy was suddenly and severely hit with the coronavirus (COVID-19) pandemic. This public health crisis disrupted economic activity, significantly affected financial conditions, and posed risks to the economic outlook. In light of these developments, the FOMC swiftly adjusted the stance of monetary policy, including using some nontraditional policy measures. (See “[2020 and Beyond: Taking Aggressive Action Amid the Global Pandemic](#)” on page 34 for more discussion.)

Other times, however, because data and other information on the state of the economy are not available immediately, it can take time before a demand shock is identified and the FOMC responds. Because traditional changes in the stance of monetary policy affect the economy with a lag, policy actions today may take several quarters or more before their effects on spending and inflation take hold. Thus, demand shocks can push the economy away from the Federal Reserve's goals of maximum employment and price stability for a time.

Supply Shocks

Other shocks can affect the production of goods and services and their prices by altering the costs associated with production or the technology used in production. Examples of such “supply shocks” include crop losses due to extreme weather and slowdowns in productivity growth relative to what would have occurred otherwise—these sorts of adverse supply shocks tend to raise prices and reduce output (and also employment). A disruption in the oil market that reduces the supply of oil and increases its price substantially can also raise other prices and reduce output because oil is an input to the production of many products.

In the face of these adverse supply shocks, policymakers can attempt to counter the loss of output by easing monetary policy and making financial conditions more conducive to spending; alternatively, policymakers can attempt to counter the rise in prices by tightening policy. As discussed, in these situations, the FOMC has indicated it would take into account the employment shortfalls and inflation deviations in achieving its goals.

Of course, the economy can also experience beneficial supply shocks, such as technological breakthroughs or reductions in the cost of important raw materials, and these beneficial supply shocks can both lower prices and boost output.

How Monetary Policy Decisions Are Made: The Deliberative Process

How are monetary policy decisions made? The members of the Board of Governors and the presidents of the 12 Federal Reserve Banks gather for eight regularly scheduled joint meetings of the Board and FOMC each year to discuss economic and financial conditions and deliberate on monetary policy. Normally, this meeting is held at the Board’s offices in Washington, D.C.; if necessary, FOMC participants meet by video conference for these meetings or at other times.

FOMC Meetings: Assessing an Evolving U.S. and World Economy

At its meetings, the FOMC considers how the U.S. economy is likely to evolve in the near and medium term, along with risks to the outlook for the economy. With this assessment, it then determines the appropriate monetary policy setting to help move the economy to the Federal Reserve’s goals of maximum employment and 2 percent inflation over the longer run. The FOMC also considers how it can effectively communicate its expectations for the economy and its policy decisions to the public. For a closer look at FOMC meeting deliberations, see [box 3.1](#).

Box 3.1. What Happens at an FOMC Meeting

In preparation for each Federal Open Market Committee (FOMC) meeting, policymakers analyze economic and financial developments and evaluate the implications of these developments for the economic outlook and risks to the outlook.

The materials that they and their staffs review include a wide range of U.S. and international economic and financial data, statistical and judgmental economic forecasts, and analyses of alternative policy approaches. Participants also consult business, consumer, and financial industry contacts to hear their perspectives on economic and financial conditions and the outlook.

Reserve Bank input gathered. The staff of the Federal Reserve Banks collect and summarize information on current economic conditions in their Districts. An overall summary, commonly known as the Beige Book, is released to the public two weeks before the FOMC meeting. (The Beige Book is available at <https://www.federalreserve.gov/monetarypolicy/beigebook/default.htm>.) At about the same time, the staff of the Federal Reserve Board distributes to all FOMC participants its analysis of the economy, its economic forecasts, and an analysis of several policy options that span the range of plausible monetary policy responses to the current and expected economic situation. Economic research groups at the Reserve Banks separately brief their Bank presidents on relevant economic developments and policy choices. Using these materials, FOMC participants formulate their preliminary views on the economic outlook and the appropriate policy response in preparation for their meeting in Washington.

Economic situation: FOMC participants receive briefings and present their views. During the first part of the meeting, the Federal Reserve governors and Reserve Bank presidents receive briefings that review the operations of the System Open Market Desk at the Federal Reserve Bank of New York and recent economic and financial developments in the United States and abroad. Each Bank president around the table then takes a turn presenting their views on economic conditions in his or her District, and both the presidents and governors offer their assessments of recent developments and the outlook.

Monetary policy: FOMC participants briefed and discuss appropriate stance of policy; members vote. After a staff presentation on options for monetary policy, participants again share their individual judgments of how policy should be conducted over the period prior to the next FOMC meeting, how they expect policy to evolve over the medium run, and how the Committee's policy intentions should be communicated to the public. While all participants are included in the discussions, the policy decision rests with the voting members of the FOMC—the members of the Board of Governors, the president of the Federal Reserve Bank of New York, and 4 of the remaining 11 Bank presidents (on a rotating basis).

For more information on the FOMC and other key Federal Reserve entities, see [section 2](#) on page 6. For an in-depth look at what happens at an FOMC meeting, see the speech that former Federal Reserve Governor Elizabeth A. Duke delivered in October 2010, "Come with Me to the FOMC," available at <https://www.federalreserve.gov/newsevents/speech/duke20101019a.htm>.

How the FOMC Determines the Appropriate Stance of Monetary Policy

During the FOMC meeting, policymakers discuss a broad range of information to help them assess trends in the U.S. economy and to judge the appropriate stance of monetary policy. They analyze the most up-to-date economic data; consider surveys of households, businesses, and financial market participants; and review reports from the Federal Reserve staff and other sources.

Overall, while reviewing all the information and analysis, policymakers keep in mind the linkages between the level of the federal funds rate, other short-term interest rates, broader financial condi-

tions, and the actions of households and businesses. They also take into account uncertainties and risks in their analysis. The FOMC meeting concludes with a decision on the stance of policy.

FOMC Statement and Chair's Press Conference

Starting in 1994, the Federal Reserve released a statement to the public when the FOMC made a change in the stance of monetary policy. A few years thereafter, the Committee began to release a statement after every meeting. The statement summarizes the Committee's judgment about recent economic developments and the economic outlook, states the FOMC's policy decision, and provides information about the factors that the FOMC will consider in setting policy as economic and financial developments evolve.

At times, the statement provides “forward guidance”—that is, information about the Committee's intentions for the federal funds rate in the future. The statement may also contain information about policy actions that may affect the size and composition of the Federal Reserve's balance sheet. Forward guidance and balance sheet policies were important

tools used in the aftermath of both the 2007–09 financial crisis and the 2020 COVID-19 shock, when short-term interest rates were near zero. The postmeeting statement concludes by noting which FOMC members voted for an action, and which members, if any, dissented from it.

Learn more about the context for monetary policy decisions

The release of postmeeting communications provides the broad context for FOMC policy decisions. Visit the Board's website to view postmeeting releases and other communications that provide the context for each FOMC meeting at <https://www.federalreserve.gov/monetarypolicy/fomccalendars.htm>.

Beginning in 2011, the Chair held press conferences immediately following the conclusion of four FOMC meetings during the year. Then, starting in 2019, the Chair started holding press conferences after each FOMC meeting. Each press conference begins with the Chair presenting an opening statement and then taking questions from members of the media. These press conferences allow the Chair to explain the rationale behind the policy decision and how it relates to the Committee's dual mandate.

Communicating Policy Regularly and Clearly

The Federal Reserve has a long-standing commitment to communicate regularly with the public and Congress concerning its monetary policy activities and the pursuit of its dual mandate. While some communications are required by statute, most represent an effort by the Federal Reserve to increase the transparency and accountability of its policy decisions and operations. The Federal Reserve also engages in significant outreach to the public in order to enhance its understanding of economic issues and the effects of its policies.

Besides the regular FOMC postmeeting statements and the Chair's press conferences that explain the FOMC's decisions, there are many other avenues for communications. Some of these com-

munications are tied to FOMC meetings and released on set dates. Other communications are associated with unanticipated events and released at the times of the events.

FOMC meeting minutes. Detailed minutes of FOMC meetings are released three weeks after each meeting. The minutes cover all policy-related topics that receive a significant amount of attention during the meeting. They describe the views expressed by the participants, the risks and uncertainties attending the outlook, and the reasons for the Committee's decisions. The minutes can help the public interpret economic and financial developments and better understand the Committee's decisions. As an official record of the meeting, the minutes identify all attendees and include votes on all authorized policy operations.

The Fed's commitment to its goals

"Overall, our new Statement on Longer-Run Goals and Monetary Policy Strategy conveys our continued strong commitment to achieving our goals, given the difficult challenges presented by the proximity of interest rates to the effective lower bound. In conducting monetary policy, we will remain highly focused on fostering as strong a labor market as possible for the benefit of all Americans. And we will steadfastly seek to achieve a 2 percent inflation rate over time."

Chair Jerome Powell, August 27, 2020

<https://www.federalreserve.gov/newsevents/speech/powell20200827a.htm>

Summary of Economic Projections. Beginning in late 2007, the Federal Reserve began publishing a summary of the economic projections of individual FOMC participants four times each year in the "Summary of Economic Projections." The FOMC publishes these projections at the same time it releases its policy statement after its regularly scheduled meetings. The projections are participants' individual assessments of the most likely outcomes for real gross domestic product (GDP) growth, the unemployment rate, and inflation consistent with each participant's assessment of the appropriate setting of the federal funds rate over the medium term and over the longer run. Also included are measures of participants' assessment of the uncertainty and risks associated with their outlooks for these variables. Participants base their respective projections on assumptions about the factors likely to affect economic outcomes.

Testimonies to Congress, speeches, and transcripts. The FOMC's communication of its policy actions and intentions extends well beyond the postmeeting statements, minutes, and press conferences. By statute, the Federal Reserve Chair testifies twice each year on economic developments and monetary policy before the congressional committees that oversee the Federal Reserve. At those times, the Board of Governors delivers the semiannual *Monetary Policy Report* to Congress that discusses the conduct of monetary policy and economic developments and prospects for the future. In addition, the Chair and other Board members appear frequently before Congress to report and answer questions on economic and financial market developments and on monetary and regulatory policy. Many Federal Reserve policymakers regularly give public speeches. And a

wide range of documents, including transcripts of the FOMC meetings and staff analysis prepared for each meeting, is made available after a five-year lag.

Committee policy statements. In addition to the regular FOMC statements following every meeting, the FOMC also issues statements from time to time providing additional information on specific topics. Three examples of such statements discussed in this section are the statement of the Committee's longer-run goals and monetary policy strategy, statements regarding balance sheet normalization principles and plans, as well as its statement regarding monetary policy implementation in the longer-run.

Regular congressional testimony and reporting promote accountability and transparency

The Board submits the *Monetary Policy Report* to Congress semiannually. This report contains discussions of the conduct of monetary policy and economic developments and prospects for the future. At the time this report is released, the Chair testifies in front of the Senate Committee on Banking, Housing, and Urban Affairs and in front of the House Committee on Financial Services. See the Board's website at https://www.federalreserve.gov/monetarypolicy/mpr_default.htm.

Collecting information from the public. FOMC policymakers collect a vast amount of information from the public to help inform them on the setting of the appropriate stance of monetary policy. Reserve Bank presidents meet with contacts in their Districts before each FOMC meeting to discuss District as well as national economic issues. The Federal Reserve conducts numerous surveys at the District level and the national level that inform the Committee about financial and economic conditions. In addition, the Federal Reserve publishes various financial and economic data that are used by the FOMC as well as the public more broadly in evaluating the health of the economy.

Monetary Policy Evolution in Recent Decades

Since the mid-1990s, the FOMC has focused on conducting monetary policy by adjusting the level of short-term interest rates with the goal of influencing overall financial conditions in a way that will promote the attainment of the Committee's dual mandate objectives. This approach, which is followed by many central banks, seeks to adjust policy in a systematic and transparent way in response to the observed and expected paths for employment and inflation. Since 2007, with extraordinary shocks hitting the global economy, the Federal Reserve has expanded its policy tools to include some less-conventional policy measures as needed.

Monetary Policy during and after the 2007–09 Financial Crisis

The crisis in global financial markets that began during the summer of 2007 became particularly severe during 2008. Early on, the Federal Reserve responded by expanding its lending to banks that were experiencing shortages of liquidity through its standard discount window. In addition, the Federal Reserve introduced several emergency lending programs that were designed to address financial institutions' needs for short-term liquidity, to help alleviate strains in many markets, and

to support the flow of credit to households and businesses. The Federal Reserve also established dollar liquidity swap arrangements with several foreign central banks to address global dollar funding pressures.

Another way that the Federal Reserve responded to the crisis was through adjustments to its traditional policy tool, the federal funds rate.

Beginning in the fall of 2007, the FOMC began cutting its target for the federal funds rate and, by the end of 2008, the target had been reduced from a level of 5¼ percent to a range of 0 to ¼ percentage point (see [figure 3.2](#)).

Although the Federal Reserve's initial responses to the crisis helped financial markets to recover and function more normally, the recession in the U.S. economy that began in December 2007 was particularly severe and long-lasting. With the federal funds rate near zero, the FOMC turned to two less-conventional policy measures—forward guidance and large-scale asset purchases—to provide additional policy accommodation to support economic activity and stem disinflationary pressures.

The FOMC's use of forward guidance influenced expectations about the future course of monetary policy. Because households and businesses can use this information in making decisions about spending and investment, forward guidance about future monetary policy can influence financial and economic conditions today. Over the course of several years, the FOMC used various forms of forward guidance and, by December 2012, the FOMC's statement was pointing to the economic conditions that the Committee expected to see before it would begin to consider raising its target range for the federal funds rate.

Unprecedented actions to foster maximum employment and stable prices

The Federal Reserve responded aggressively to the financial crisis that emerged in the summer of 2007, including the implementation of a number of programs designed to support the liquidity of financial institutions and foster improved conditions in financial markets.

For more on the monetary policy actions taken at that time, see https://www.federalreserve.gov/monetary-policy/bst_crisisresponse.htm.

Clear usage of forward guidance

In 2008, the FOMC lowered the target range for the federal funds rate to the effective lower bound and provided forward guidance that indicated the target would likely be exceptionally low for some time. A timeline of the FOMC's setting of the policy rate and use of forward guidance is available at <https://www.federalreserve.gov/monetarypolicy/timeline-forward-guidance-about-the-federal-funds-rate.htm>.

In terms of large-scale asset purchases, between late 2008 and October 2014, the Federal Reserve purchased longer-term securities through a series of programs with the aim of putting downward pressure on longer-term interest rates, easing broader financial market conditions, and thus supporting economic activity and job creation. These purchases reduced the cost and increased the availability of credit for households and businesses.

Reflecting the FOMC's multiyear asset purchase programs and decision to reinvest maturing and prepaying securities, total assets of the Federal Reserve increased significantly by the end of 2014, from \$870 billion in August 2007 to about \$4.5 trillion, or 25 percent as a ratio to nominal GDP.

2015–19: Normalizing Monetary Policy in a Normalizing Economy

By 2015, the economic expansion had been ongoing for several years and unemployment had declined noticeably. In addition, labor market conditions were projected to continue to improve, and inflation was projected to move up to 2 percent. With this backdrop, the FOMC decided that it would begin normalizing the stance of monetary policy in order to continue to foster its macroeconomic objectives. The term “normalization” refers to steps the FOMC took to return both short-term interest rates as well as the size and composition of the Federal Reserve's balance sheet to more-normal levels.

Large-Scale Asset Purchase (LSAP) programs supported credit for households and businesses

From the end of 2008 through October 2014, the Federal Reserve greatly expanded its holding of longer-term securities with the goal of putting downward pressure on longer-term interest rates and thus supporting economic activity and job creation by making financial conditions more accommodative.

More information on LSAPs is available at https://www.federalreserve.gov/monetarypolicy/bst_openmarketops.htm.

To be transparent about this process and allow market participants to prepare for Federal Reserve normalization actions, the FOMC made public its policy normalization principles and plans. In particular, it announced the plan to first raise the federal funds rate from near zero and then to normalize the size and composition of the balance sheet. To that end, the Committee gradually raised its target range for the federal funds rate between December 2015 and December 2018. By the end of 2018, the federal funds rate target range stood at 2¼ to 2½ percent.

In terms of balance sheet policy, the FOMC began reducing the size of its asset holdings in late 2017 by gradually phasing out the reinvestment of maturing and prepaying securities. By early 2019, the Federal Reserve's balance sheet declined to a bit under 20 percent as a ratio of nominal GDP.

As in the period prior to the 2007–09 financial crisis, during this period, the FOMC normalized the stance of policy by adjusting the level of short-term interest rates up in response to the observed and expected future paths for the unemployment rate and inflation. However, after several years of increasing the target range for the federal funds rate, the level of interest rates still remained much lower than in the past. Many factors contributed to this lower level—well-anchored inflation expectations, demographics, globalization, slower productivity growth, and greater demand for safe assets.

In this lower interest rate environment, the risk of shocks to the economy that can push the federal funds rate to the effective lower bound is much higher than before the financial crisis. And, in fact, the FOMC found itself swiftly lowering the policy target range to the effective lower bound

in March 2020, at the onset of the COVID-19 pandemic, and turning to tested, additional policy tools—forward guidance and balance sheet policy.

2020 and Beyond: Taking Aggressive Action Amid the Global Pandemic

The COVID-19 pandemic, still evolving at the time of this publication, is fundamentally a global public health crisis. The coronavirus, as well as measures taken to limit its spread and protect public health, including social distancing, triggered deep disruptions in economic activity—including a surge in job losses and a sharp decline in GDP—and severe strains in financial markets around the globe. The Federal Reserve’s initial response to these extraordinary developments was guided by its mandate to promote maximum employment and stable prices as well as its role in fostering the stability of the financial system.

The actions and programs introduced were targeted at supporting the flow of credit to households, businesses, nonprofits, and municipalities. In March 2020, the FOMC lowered the policy interest rate to near zero. It also introduced forward guidance, which evolved to signal that the Committee expected to maintain this near-zero target range until the economy was essentially at the FOMC’s employment and inflation goals.

In addition to these steps, the Federal Reserve took forceful measures in four areas:

1. open market operations to restore market functioning;
2. actions to improve liquidity conditions in short-term funding markets;
3. programs, in coordination with the Treasury Department, to facilitate more directly the flow of credit; and
4. measures to encourage banks to use their substantial capital and liquidity buffers built up over the past decade to support the economy during this difficult time.

Many of these measures increased the size of the Federal Reserve’s balance sheet; total assets stood near \$7 trillion or 35 percent as a ratio of nominal GDP by mid-2020 (see [box 3.2](#), “The Fed’s Response to the COVID-19 Shock Is Reflected in Its Balance Sheet”).

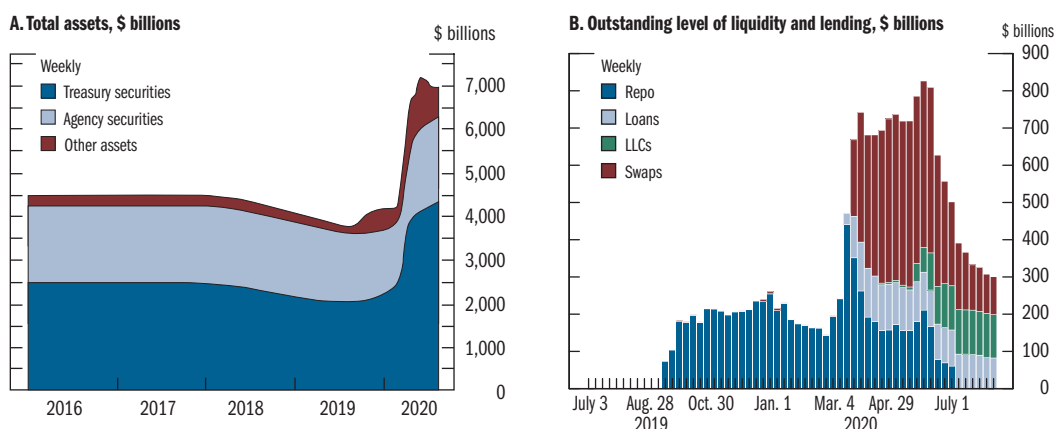
Monetary Policy Tools

Once the FOMC determines the stance of policy appropriate to achieve its dual mandate objectives, it must then make sure this stance is effectively implemented. The Board and FOMC have many policy implementation tools at their disposal to ensure that the policy stance is being transmitted to financial markets. In normal times, the key tools are administered interest rates and open market purchases and sales of securities.

Box 3.2. The Fed's Response to the COVID-19 Shock Is Reflected in Its Balance Sheet

During the first few months of the coronavirus (COVID-19) pandemic, the Fed's balance sheet increased from \$4.3 trillion in mid-March 2020 to nearly \$7.2 trillion in early June 2020.

The largest contribution to the expansion of the balance sheet was a \$2.1 trillion increase in holdings of Treasury and agency mortgage-backed securities (figure A). This increase reflected the sizable asset purchases conducted to support the smooth functioning of the markets in which these assets are issued and traded, markets that are vital to the flow of credit in the economy, and the transmission of monetary policy to broader financial conditions. Other assets that boosted the size of the balance sheet included an increase in liquidity and lending programs (figure B). In particular, central bank liquidity swaps, which were deployed to help ease strains in global funding markets, and limited liability corporations (LLCs), which were implemented to support the flow of credit, saw notable utilization during the first few months of the COVID-19 shock.



A detailed discussion of the movement in the individual line items on the Federal Reserve's balance sheet during the first few months of the COVID-19 pandemic are found in the August 2020 *Report on the Federal Reserve's Balance Sheet*, https://www.federalreserve.gov/publications/files/balance_sheet_developments_report_202008.pdf.pdf.

Interest on reserve balances. Depository institutions hold funds in reserve accounts at their regional Federal Reserve Banks. Beginning in October 2008, the Federal Reserve began paying interest on required and excess reserve balances. Between October 2008 and March 2020 the interest rates on required and excess reserves were set to the same rate. Because reserve requirements no longer served as an important tool for implementing monetary policy, beginning in March 2020, required reserves were set to zero and all reserve balances began earning the interest rate on excess reserves. As of July 29, 2021, the Federal Reserve eliminated references to an interest on required reserves rate and to an interest on excess reserves rate and replaced them with a single interest rate on reserve balances (IORB) rate.

By raising or lowering the IORB rate, the Federal Reserve sets a floor on the rates at which banks are willing to lend excess cash in their reserve balance accounts at the Federal Reserve to private

counterparties. The IORB rate thus affects the federal funds rate and other short-term market interest rates. (See [box 3.3](#) for a discussion of how interest on reserve balances has proven to be an effective tool for transmitting the FOMC's target range for the federal funds rate to other interest rates in the economy.)

Open market operations. Over the years, the Federal Reserve has relied upon open market operations as a tool of policy implementation. In conducting an open market operation, the Open Market Desk at the Federal Reserve Bank of New York (or, the Desk) permanently or temporarily buys or sells securities issued or guaranteed by the U.S. Treasury or U.S. government agencies. When the

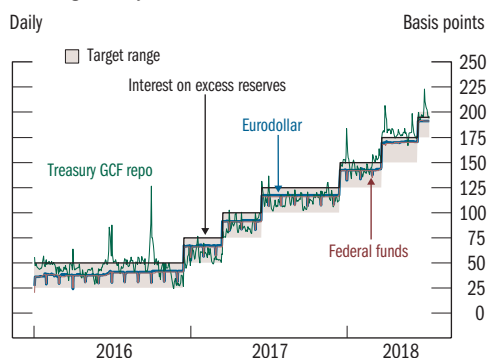
Box 3.3. Interest on Reserve Balances as a Key Tool of Monetary Policy Implementation

The Federal Reserve uses interest on reserve balances as a key tool to anchor the federal funds rate in the target range. The interest on reserve balances (IORB) rate acts as a benchmark for banks when determining the interest rate to charge in their lending activities.

In particular, banks should require a rate in lending to households and businesses and others at least as high as they can earn on balances maintained in their reserve accounts at the Federal Reserve. As a result, the setting of the IORB rate affects borrowing and lending in overnight money markets as well as influences broader financial markets.

When the FOMC increased the target range for the federal funds rate between late 2015 and the end of 2018, there was a corresponding change to the interest on required and excess reserves rates to move the federal funds rate into the target range. Other overnight money market rates also moved up (figure A). Rates in short-term funding markets—such as commercial paper rates and Treasury bill rates—moved higher as well (figure B). In 2019 and 2020, when the FOMC lowered the target range for the federal funds rate, the Federal Reserve lowered the interest rates on required and excess reserves and short-term rates declined. These increases and decreases in the general level of short-term rates, together with the expected future path of short-term rates, then influenced the level of other financial asset prices and overall financial conditions in the economy.

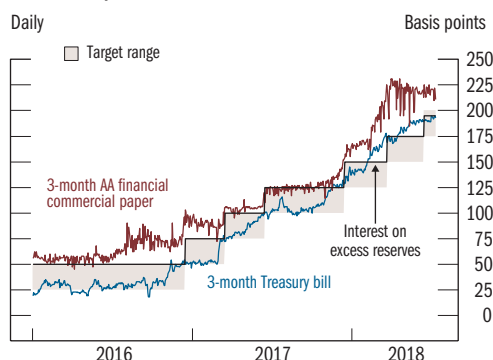
A. Overnight money market rates



Note: The upper bound of the target range is also the interest on excess reserves rate until June 13, 2018, after which the upper bound is 5 basis points higher. GCF is General Collateral Finance.

Source: For Treasury GCF repo, DTCC Solutions LLC, and affiliate of The Depository Trust & Clearing Corporation; for federal funds, Federal Reserve Bank of New York; for Eurodollar, Bloomberg; for interest on reserves and target range, Federal Reserve Board.

B. Term money market rates



Note: The upper bound of the target range is also the interest on excess reserves rate until June 13, 2018, after which the upper bound is 5 basis points higher.

Source: For U.S. Treasury bill, Department of the Treasury; for AA financial commercial paper, interest on reserves, and target range, Federal Reserve Board.

securities are bought or sold, reserves in the banking system are increased or decreased, respectively.

The Federal Reserve Act requires that the Desk conduct its purchases and sales in the open market. To do so, the Desk has established relationships with private-sector counterparties that are active in the market for U.S. government securities. For example, when the Federal Reserve permanently purchases a security, the Desk buys eligible securities from primary dealers at prices determined in a competitive auction.

Interest on reserve balances

Detailed information on the Fed's primary tool, interest on reserve balances, is available on the Federal Reserve Board's website at <https://www.federalreserve.gov/monetarypolicy/reqresbalances.htm>.

The Federal Reserve pays for those securities by crediting the reserve accounts of the correspondent banks of the primary dealers. (The correspondent banks, in turn, credit the dealers' bank accounts.) In this way, the open market purchase leads to an increase in reserve balances.

A temporary purchase operation (a repurchase agreement or “repo”) is a transaction in which the Desk purchases a security from an eligible counterparty with an agreement to sell back that same security at a specified price at a specific time in the future.

Overnight reverse repurchase facility. Today, the FOMC uses a standing overnight reverse repurchase facility as a tool to help keep the federal funds rate in the target range. The facility effectively puts a floor on the federal funds rate.

An overnight reverse repurchase agreement is an open market operation where the FOMC stands ready to sell securities to the designated counterparties. The FOMC sets an overnight reverse repurchase agreement offering rate (ON RRP rate), which is the maximum interest rate the Federal Reserve is willing to pay in an ON RRP operation. When an institution uses the ON RRP facility, it essentially makes a deposit at the Fed overnight, receiving a government security as collateral. The next day, the transaction is “unwound”—the Fed buys back the security, and the institution earns interest on the cash it deposited at the Fed. The actual interest rate that a counterparty receives is determined through an auction process. The amount of ON RRP provided is limited only by the quantity of available Treasury securities in the Federal Reserve's portfolio. As a result, except in very unusual circumstances, the auction rate will be equal to the ON RRP offered rate. In general, any counterparty to the facility should be unwilling to invest funds overnight in money markets at a rate below the ON RRP rate.

Purchases and sales of securities. Before the 2007–09 financial crisis, the Federal Reserve frequently used permanent and temporary purchases and sales of securities to affect the supply of reserves and hence conditions in the federal funds market to maintain the federal funds rate at the target set by the FOMC. The size of these operations varied day-to-day depending on market

conditions but tended to be of modest size. Under the current operational framework, the FOMC seeks to maintain an ample supply of reserves in the banking system so that active use of open market operations to fine tune daily levels of reserves is not required. However, under the ample-reserves framework, the Federal Reserve will still need to conduct open market operations to maintain an ample supply of reserves over time.

In addition, the Federal Reserve may utilize open market purchases during times of stress or to provide more monetary policy support to the economy. During the 2007–09 financial crisis and subsequent recession—at a time when the federal funds rate was near zero and the Committee wanted to put downward pressure on yields of a variety of longer-term securities held by private investors—the FOMC conducted four large-scale asset purchase programs.

Learn more about the Fed's toolkit

The Federal Reserve has many traditional and non-traditional policy implementation tools to promote a healthy economy. A discussion of each of the active tools is found at <https://www.federalreserve.gov/monetarypolicy/policytools.htm>.

When the Federal Reserve buys longer-term securities in the open market, the remaining stock of securities available for purchase by the public declines, which pushes the prices of those securities up and thus depresses their yields.

In the early months of the 2020 COVID-19 shock, the FOMC purchased Treasury securities and agency mortgage-backed securities in the amounts needed, which were quite sizable, to support smooth market functioning. Over time, the size of these purchases slowed, and the FOMC turned to using these open market operations to help foster both smooth market functioning and accommodative financial conditions, with the aim to support the flow of credit to households and businesses.

Discount window lending. Discount window lending is available as a backup source of liquidity for depository institutions. The discount window serves as a useful tool for promoting financial stability by providing temporary funding to banks that are experiencing liquidity pressures. Borrowers pledge collateral to secure loans from the discount window and the rate charged on discount window loans is generally somewhat above the prevailing level of market interest rates. By providing ready access to liquidity at a fixed rate, the discount window helps to damp upward pressures on the federal funds rate and other short-term bank funding rates.

Reserve requirements. Reserve requirements specify a quantity of reserves—vault cash and balances at a Federal Reserve Bank—that a depository institution must hold against transaction accounts and other selected deposit liabilities. The Federal Reserve Board establishes reserve requirements that apply for all banks.

Before the global financial crisis, reserve requirements were a key factor in the implementation of monetary policy, as these requirements influenced banks' demand for reserves. Today, with a

much larger level of reserves in the banking system, reserve requirements are not a key factor influencing reserve demand for many banks. Partly reflecting this fact, the Board of Governors announced in March 2020 that it was reducing reserve requirements to zero so that this tool is no longer active.

Nontraditional tools. During times of severe economic downturns the Federal Reserve can employ lending tools to support the flow of credit to households and businesses. Many, but not all, of these tools are emergency lending programs that rely on section 13(3) of the Federal Reserve Act, a provision that allows the Board of Governors to establish broad-based lending facilities in unusual and exigent circumstances with approval of the Secretary of the Treasury. Most of these programs provide a backstop source of funding to targeted markets, generally with the aim of supporting the flow of credit to households and businesses. When economic and financial conditions improve, emergency lending programs are discontinued.

How Monetary Policy Is Implemented

How does the Federal Reserve ensure that its stance of policy is achieved? It relies on an implementation framework. There are two broad operating frameworks that central banks use to implement policy, and the Federal Reserve has successfully used both regimes in the past few decades.

Before the 2007–09 financial crisis, the FOMC operated in a regime with limited reserves in the banking system; today it implements policy in a regime with ample reserves. (See [box 3.4](#) for a discussion of the evolution of reserve balances.) The regimes not only differ by the level of reserves in the banking system, but also by the key tools used to control short-term interest rates.

Limited-Reserves Regime

Prior to the 2007–09 financial crisis, the Federal Reserve supplied a limited, or scarce, amount of reserves to the banking system—just enough to satisfy banks’ limited demand for reserves at the FOMC’s target federal funds rate. On a daily basis, the Federal Reserve would purchase or sell securities through open market operations to inject or remove reserves from the banking system to keep the federal funds rate near the FOMC’s target. It was through these daily adjustments in the amount of reserves that the federal funds rate and other short-term interest rates, as well as broader financial conditions, were influenced so as to affect household and business decisions.

Ample-Reserves Regime

Today and going forward, the Federal Reserve is implementing policy with a much more plentiful amount of reserves. In this regime, even large fluctuations in the supply of reserves do not translate into movements in the federal funds rate or other short-term interest rates. In this framework, the Federal Reserve relies on two **administered rates**—the interest on reserve balances rate and

Box 3.4. Evolution of Reserves in the Banking System

The Federal Reserve controls the quantity of reserves in the banking system. Over the past few decades, the level of reserve balances has moved substantially, reflecting the various ways the Federal Open Market Committee (FOMC) has conducted and implemented monetary policy.

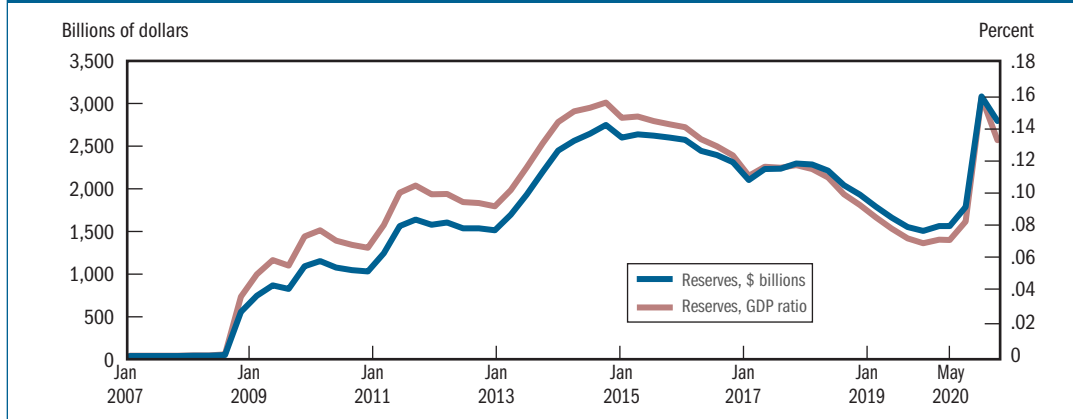
In the decade before the 2007–09 financial crisis, the supply of reserves was limited and monitored daily. The level was determined to maintain the federal funds rate at the target level set by the FOMC. Throughout this period, reserve balances averaged less than \$20 billion.

2007–17. During the financial crisis and subsequent recession, when the federal funds rate was near the zero lower bound, the FOMC conducted a series of large-scale asset purchase programs to help stimulate the economy and keep inflation close to the Committee’s objective, which increased reserves substantially; reserve balances peaked at \$2.7 trillion or 15 percent as a ratio of nominal GDP in late 2014.

2017–19. Once the economy recovered sufficiently and the federal funds target range was away from zero, the FOMC redeemed maturing and prepaying securities up to a predetermined, monthly limit. These redemptions, in combination with growth in nonreserve liabilities on the Federal Reserve’s balance sheet—such as currency—reduced reserves substantially between October 2017 and August 2019. In October 2019, the FOMC announced its intentions to maintain over time ample reserve balances at or above the level that prevailed in early September 2019, which was about \$1.5 trillion or 7 percent of nominal GDP.

2020. Then in 2020, faced with the coronavirus (COVID-19) pandemic, the FOMC turned to large-scale asset purchases to help stabilize key financial markets. The Federal Reserve also established emergency lending in several important areas. These actions again boosted the level of reserves in the banking system. As of the end of June 2020, reserves stood at \$2.9 trillion or about 15 percent of nominal GDP.

Figure A. Reserves evolve to help stabilize the economy



the ON RRP offering rate—to steer short-term market interest rates toward the policy target range. By paying interest on reserve balances and offering ON RRPs, the Federal Reserve provides safe, liquid investments for banks and nonbank financial institutions that are ON RRP counterparties. These two rates set a floor on the rate that banks and other lenders are willing to accept in lending out and, hence, help anchor short-term interest rates. (See [figure 3.3](#) for how these administered interest rates ultimately influence the decisions of households and businesses.)

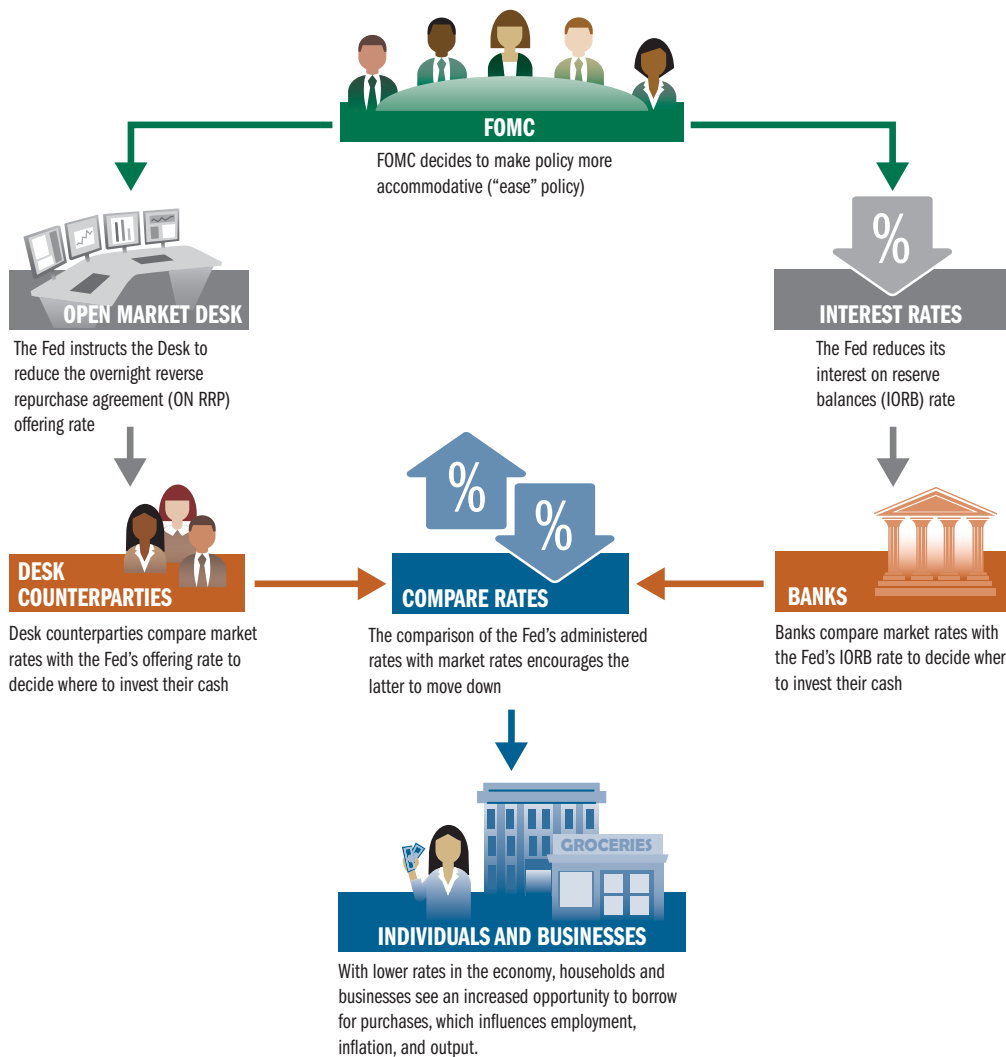
When the FOMC lifted rates off from the zero lower bound in late 2015, the Board set the interest on required and excess reserves rates at the top of the federal funds rate target range and the

FOMC set the ON RRP rate at the bottom of the range. Over time, as the FOMC moved the stance of policy up or down, the Federal Reserve adjusted the interest on required and excess reserves rates as well as the ON RRP rate in a manner to encourage federal fund trades at rates within the policy target range. (Figure 3.3 shows how these administered interest rates ultimately influence the decisions of households and businesses).

In January 2019, the FOMC announced “it intends to continue to implement monetary policy in a regime in which an ample supply of reserves ensures that control over the level of the federal

Figure 3.3. How the Federal Reserve implements monetary policy

When the Federal Open Market Committee (FOMC) sets monetary policy that, for example, requires lowering the policy interest rate, the Federal Reserve also lowers its administered interest rates. Fed counterparties then make investment decisions by comparing the Fed’s administered rates and market interest rates. This comparison causes market rates to decline, which increases borrowing opportunities for households and businesses. These actions allow the FOMC to make progress toward its dual mandate of maximum employment and price stability.



funds rate and other short-term interest rates is exercised primarily through the setting of the Federal Reserve's administered rates, and in which active management of the supply of reserves is not required." Table 3.1 reviews the Federal Reserve's traditional implementation tools in use in an ample-reserves regime.

In recent years, the Federal Reserve has successfully implemented monetary policy with a

varying degree of ample reserves in the banking system. In September 2019, some market stresses began to emerge suggesting that the level of reserves may have been close to falling below an ample level; for the remainder of that year the Federal Reserve consistently conducted open market operations to maintain over time reserve balances at or above the level that prevailed in early September of that year. Then, in early 2020, the COVID-19 shock hit the global economy. Swift and forceful actions by the Federal Reserve to stabilize economic and financial conditions and reduce risks to the economic outlook were implemented and significantly boosted the level of reserves

Learn more about how the Fed uses "ample reserves"

A primer on what an ample-reserves regime is and how it works is available at

<https://www.federalreserve.gov/econres/feds/the-feds-ample-reserves-approach-to-implementing-monetary-policy.htm>.

A shorter, educators piece that also compares the ample and limited-reserves regimes is available at

<https://research.stlouisfed.org/publications/page1-econ/2020/08/03/the-feds-new-monetary-policy-tools>.

Table 3.1 Traditional tools in an ample-reserves regime

In recent years, the Federal Reserve has successfully implemented monetary policy with a varying degree of ample reserves in the banking system.

Tool	Definition	In practice
Interest on reserve balances (IORB)	Interest paid on funds that banks hold in their reserve balance accounts at their Federal Reserve Bank.	Because banks are unlikely to lend funds in the federal funds market for less than they get paid in their reserve balance account at the Federal Reserve, IORB is an effective tool for guiding the federal funds rate. In fact, interest on reserve balances is the primary tool for moving the federal funds rate within the target range.
Overnight reverse repurchase agreement (ON RRP) facility	The Federal Reserve's standing offer to many large nonbank financial institutions to deposit funds at the Fed and earn interest.	Because large, nonbank financial institutions who are counterparties to the ON RRP facility are unlikely to lend funds for lower than the ON RRP offering rate, the ON RRP facility acts as a supplementary tool for moving the federal funds rate within the target range.
Open market operations	The Federal Reserve's buying and selling of securities issued or guaranteed by the U.S. Treasury or U.S. government agencies.	Open market operations will be used to maintain an ample supply of reserves.
Discount window	The Federal Reserve's lending to banks (the "discount window") at the discount rate.	Because banks are unlikely to borrow at a rate that's higher than the discount rate, the discount window helps put a ceiling on the federal funds rate.

in the banking system. (See subsection “2020 and Beyond: Taking Aggressive Action Amid the Global Pandemic” on page 34 for more details.)

Finally, the Federal Reserve’s actions to implement monetary policy are reflected in the Federal Reserve’s balance sheet. Key assets and liabilities are reported to the public each week. (See [box 3.5](#) for more details about key line items of the Federal Reserve’s balance sheet.) The vast major-

Box 3.5. Gauging Monetary Policy through the Fed’s Balance Sheet

The Federal Reserve’s balance sheet, published weekly, contains a great deal of information about the scale and scope of its operations. For decades, market participants have closely studied the evolution of the Federal Reserve’s balance sheet to understand important details about the implementation of monetary policy.

The table below shows the major asset and liability categories on the Federal Reserve’s balance sheet as of June 24, 2020. On the asset side of the balance sheet, securities holdings represented the vast majority of assets. Treasury securities holdings stood at nearly \$4.2 trillion, while agency securities holdings were \$1.9 trillion. Some of the other assets on the balance sheet reflected liquidity and credit market facilities that the Federal Reserve put in place to help fight against the negative economic and financial market consequences of the coronavirus (COVID-19) pandemic.

On the liabilities side of the balance sheet, deposits of depository institutions (i.e., reserve balances), currency in circulation, and the Treasury’s General Account each represented a substantial share. Reserve balances, which stood at \$2.9 trillion, are deposits held at Federal Reserve Banks by depository institutions, including commercial banks, savings banks, credit unions, thrift institutions, and most U.S. branches and agencies of foreign banks. These balances allow banks to facilitate daily payment flows, both in ordinary times and in stress scenarios, without borrowing funds or selling assets. Currency stood at \$1.9 trillion. U.S. currency is an important medium of exchange and store of value, both domestically and abroad. Despite the increasing use of electronic means of payment, currency remains widely used in retail transactions. The Treasury’s General Account held nearly \$1.6 trillion, reflecting in part the cash needs for the fiscal spending related to the Coronavirus Aid, Relief, and Economic Security Act and other stimulus measures.

Table A. Simplified view of the Federal Reserve balance sheet, as of June 24, 2020

The Federal Reserve publishes data weekly regarding its balance sheet.

Assets (billions of dollars)		Liabilities (billions of dollars)	
Treasury securities held outright	4,197	Deposits of depository institutions	2,938
Agency debt and mortgage-backed securities holdings	1,946	Federal Reserve notes in circulation	1,915
		U.S. Treasury, General Account	1,587
Other assets	939	Capital and other liabilities	642
Total	7,082	Total	7,082

Note: The H.4.1 statistical release, “Factors Affecting Reserve Balances,” is published every Thursday at <https://www.federalreserve.gov/releases/h41/>.

ity of the Federal Reserve's assets are securities holdings. During times of severe stress, the Fed may introduce liquidity and credit market facilities and usage of these facilities increases the level of reserves.

A large, stylized orange map of the United States serves as the background for the page. Overlaid on the map is a grid of thin, light-colored lines, resembling a globe's latitude and longitude. The number '4' is prominently displayed in the upper left corner.

4

Promoting Financial System 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.

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Domestic and International Cooperation and Coordination.	57

The Federal Reserve was created in 1913 to promote greater financial stability and help avoid banking panics, such as those that had plunged the country into deep economic contractions in the late nineteenth and early twentieth centuries.

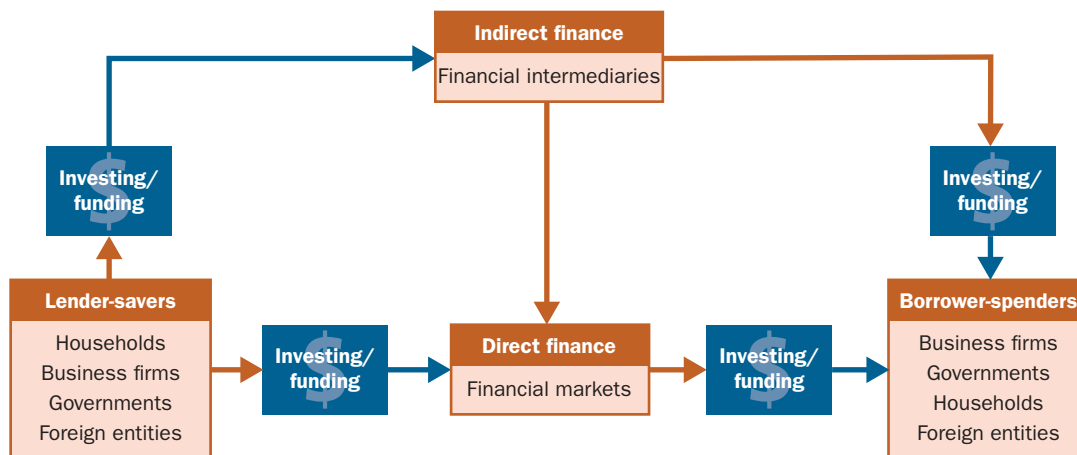
Over the past century, as the U.S. and global financial systems have evolved, the Federal Reserve's role in promoting financial stability has necessarily changed with it. The 2007–09 financial crisis and the subsequent deep recession revealed shortcomings in the financial system infrastructure and the framework for supervising and regulating it (figure 4.1). Indeed, reforms enacted under the Dodd-Frank Wall Street Reform and Consumer Protection Act of 2010 (Dodd-Frank Act)—the landmark legislative response to the 2007–09 crisis—assigned the Federal Reserve new responsibilities in the effort to promote financial system stability and keep pace with changing dynamics and innovation in the broader economy.

What Is Financial Stability?

A financial system is considered stable when financial institutions—banks, savings and loans, and other financial product and service providers—and financial markets are able to provide households, communities, and businesses with the resources, services, and products they need to invest, grow, and participate in a well-functioning economy.

Figure 4.1. The financial system: key participants and linkages

Key participants in the U.S. and global financial system include the lenders and savers who are matched up with borrowers and spenders through various markets and intermediaries. The Federal Reserve monitors the financial system to ensure the linkages among entities are well-functioning and adjusts its policymaking or engagement with other policymakers to address any emerging concerns.



Source: Adapted from Frederic S. Mishkin and Stanley G. Eakins, *Financial Markets and Institutions*. 7th Edition (Boston: Prentice Hall, 2012), 16.

These resources and services include

- business lines of credit, mortgages, student loans, and the other critical offerings of a sophisticated financial system; and
- savings accounts, brokerage services, and retirement accounts, among many others.

Effective Linking of Savers and Lenders with Borrowers and Spenders

A healthy and stable financial system links, at the lowest possible cost, savers and investors seeking to grow their money with borrowers and businesses in need of funds. If this critical role of intermediation between savers and borrowers is disrupted in times of stress, the adverse impact will be felt across the economy.

And such disruption can carry a very high price. As a result, financial stability in its most basic form could be thought of as a condition where financial institutions and markets are able to support consumers, communities, and businesses even in an otherwise stressed economic environment.

Keeping Institutions and Market Structures Resilient

To support financial stability, it is critical that financial institutions and market structures are resilient, so that they are able to bend but not break under extreme economic pressures. Such a dynamic does not mean that market prices will never rise or fall quickly. Volatility may reflect changes in economic conditions and would be a concern with respect to financial stability only when institutions and markets are not adequately prepared. Financial stability depends on firms and critical financial market structures having the financial strength and operational skills to manage through volatility and continue to provide their essential products and services to consumers, communities, and other businesses.

Monitoring Risk across the Financial System

The Federal Reserve and other bank regulators have long supervised individual banks and financial institutions to make sure they are run in a “prudent” and “safe and sound” manner and are not taking excessive risks. The goal of this traditional “microprudential” supervisory approach is to ensure that individual banks and financial institutions are less likely to fail and to help avoid any associated adverse circumstances for their customers.

In the heat of the 2007–09 financial crisis, however, it became clear this microprudential focus did not adequately identify risks that developed *across and between* markets and institutions; these

Box 4.1. Financial Stability and the Founding of the Federal Reserve

Financial stability considerations were a key element in the founding of the Federal Reserve System. Indeed, it was created in response to the Panic of 1907, which was at the time the latest in a series of severe financial panics that befell the nation in the late nineteenth and early twentieth centuries.

The 1907 panic led to the creation of the National Monetary Commission, whose 1911 report was a major impetus to the Federal Reserve Act, signed into law by President Woodrow Wilson on December 23, 1913. Upon enactment, the process of organizing and opening the Federal Reserve Board of Governors and the Federal Reserve Banks across the country began. On November 16, 1914, the Federal Reserve System began full-fledged operations.

In the words of one Federal Reserve Act author, U.S. Senator Robert Latham Owen of Oklahoma, “It should always be kept in mind that . . . it is the prevention of panic, the protection of our commerce, the stability of business conditions, and the maintenance in active operation of the productive energies of the nation which is the question of vital importance.”

For more information on the Federal Reserve founding, see *The Federal Reserve Act: Its Origin and Principles*, available on the Federal Reserve Bank of St. Louis website (https://fraser.stlouisfed.org/docs/publications/books/fra_owen_1919.pdf).

risks threatened to set off a cascade of failures that could have undermined the entire financial system. Thus, a central element of the Dodd-Frank Act is the requirement that the Federal Reserve and other financial regulatory agencies look across the entire financial system for risks, adopting a macroprudential approach to supervision and regulation.

Whereas a traditional—or microprudential—approach to supervision and regulation focuses on the safety and soundness of individual institutions, the macroprudential approach centers on the stability of the financial system as a whole (see [section 5](#), “Supervising and Regulating Financial Institutions and Activities,” on page 62, for more on micro- and macroprudential supervision).

Types of Financial System Vulnerabilities and Risks

Federal Reserve staff regularly and systematically assess a standard set of vulnerabilities as part of a Federal Reserve System macroprudential financial stability review:

- asset valuations and risk appetite
- leverage in the financial system
- funding risk
- borrowing by businesses and households

These vulnerability assessments inform internal Federal Reserve discussions concerning both macroprudential supervision and regulatory policies, as well as monetary policy (figure 4.2). They also inform Federal Reserve interactions with broader monitoring efforts, such as those by the Financial Stability Oversight Council (FSOC) and the Financial Stability Board (FSB).

Asset Valuations and Risk Appetite

Elevated asset valuations constitute a fundamental vulnerability because the unwinding of high prices can be destabilizing in the financial system and economy, especially if the assets are widely held and the values are supported by excessive leverage, maturity transformation, or risk opacity. Moreover, stretched asset valuations may be an indicator of a broader buildup in risk-taking.

Assessing resilience of the U.S. financial system

The Financial Stability Report assesses the resilience of the U.S. financial system. Through the report, the Board intends to inform the public of U.S. financial stability and increase transparency and accountability of the assessments. The report is available on the Federal Reserve Board's website (<https://www.federalreserve.gov/publications/financial-stability-report.htm>).

However, it is very difficult to judge whether an asset price is overvalued relative to fundamentals. As a result, analysis typically considers a range of possible valuation metrics, developments in areas where asset prices are rising especially rapidly or into which investor flows have been considerable, or the implications of unusually low or high levels of volatility in certain markets.

Figure 4.2. Four standard components of financial system vulnerability review

Four vulnerability assessments inform the broad efforts undertaken by the Federal Reserve—with entities both in the United States and abroad—to monitor financial system stability.

Asset valuations and risk appetite	Financial system leverage	Funding risk	Borrowing by businesses and households
The “unwinding” of high prices of assets (e.g., housing prices in the mid-2000s) can destabilize the financial system and the economy	Financial system intermediaries (such as traditional banks, insurance companies, and hedge funds) with significantly more debt than equity can amplify an economic downturn	Traditional banks, money market funds, and exchange-traded funds are among the institutions that might experience a “run” by investors that amplifies an economic downturn	If credit exposure in U.S. households and nonfinancial businesses is high, these borrowers often curtail spending and disengage from other economic activity and may contribute to a severe downturn

Source: *Financial Stability Report*, “Overview,” May 2019 (available on the Federal Reserve Board's website at <https://www.federalreserve.gov/publications/2019-may-financial-stability-report-overview.htm>).

Leverage in the Financial System

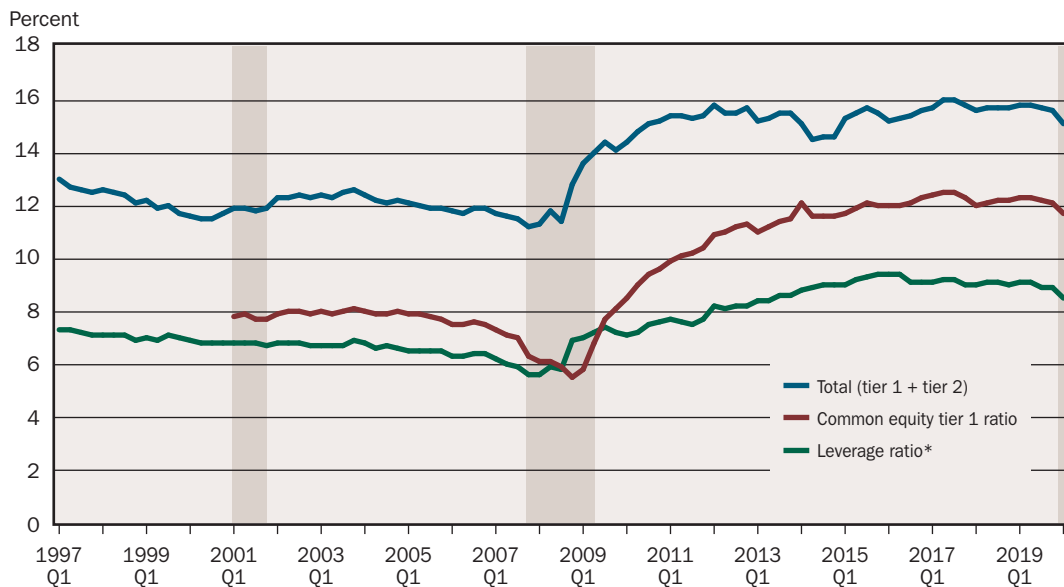
Highly leveraged financial system intermediaries—those with significantly more debt than equity—can amplify the effect of negative shocks in the financial system and broader economy (figure 4.3).

For example, if a highly leveraged institution needs to shrink its balance sheet in response to an otherwise standard economic downturn, the resulting contraction in credit will have broader economic implications. Moreover, sufficiently large losses for highly leveraged institutions can lead to “fire sales,” where assets are unloaded quickly at extremely low prices. Fire sales, in turn, increase the potential for runs on banks—and even on nonbanks—if liabilities have short maturities.

The Federal Reserve monitors leverage in the banking sector with the help of an extensive data collection program. Monitoring efforts include the Dodd-Frank Act stress tests for large banking

Figure 4.3. Monitoring leverage in the financial system

The collective financial strength of the banking sector—and its prevailing activities—can be an important indicator in understanding risks to the nation’s financial stability. The Federal Reserve focuses on metrics, such as the ratio of common equity to risk-weighted assets in the banking sector, which has risen post-crisis as a reflection of tougher capital standards for major banking institutions



Note: Prior to 2014:Q1, the numerator of the common equity tier 1 ratio is tier 1 common capital. Beginning in 2014:Q1 for advanced-approaches bank holding companies (BHCs) and in 2015:Q1 for all other BHCs, the numerator is common equity tier 1 capital. The data for the common equity tier 1 ratio start in 2001:Q1. As of 2019, an advanced-approaches BHC is defined as a large internationally active banking organization, generally with at least \$700 billion in total consolidated assets or at least \$75 billion in total on-balance-sheet foreign exposure. The shaded bars indicate periods of business recession as defined by the National Bureau of Economic Research.

* Leverage ratio is the ratio of tier 1 capital to total assets.

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

institutions and the *Financial Stability Report* for all banks as well as the overall financial sector. Additionally, periodic surveys of nonbank providers of leverage through the Senior Credit Officer Opinion Survey offer valuable insights on nonbank financial leverage.

Funding Risk and Maturity Transformation by the Financial System

One key benefit provided by the financial system is to transform short-maturity (or liquid) liabilities into long-maturity (illiquid) assets. This function is done primarily through the traditional banking system or other depository institutions, but it also occurs outside the banking system, for example, through money market mutual funds.

Liquidity and maturity transformation is productive in the sense that it allows investment projects to be funded with long-term financing while still satisfying the liquidity needs of lenders. However, as seen during the 2007–09 financial crisis, the mismatch between long-term assets and short-term funding creates systemic vulnerabilities that can threaten the broader economy (see [box 4.2](#), “Responding to Financial System Emergencies”).

When a systemwide shock results in all lenders demanding liquidity at the same time, institutions engaged in this maturity transformation are at risk of being run. Deposit insurance provides protection within the traditional banking system. Nevertheless, some assets such as repurchase agreements (or “repos”), asset-backed commercial paper, or money market

funds are also subject to run risk and, indeed, came under considerable pressure during the crisis. For this reason, the Federal Reserve actively monitors, as best it can given available data and measurement, both liquidity risk and the degree of maturity transformation in the financial system.

Monitoring leverage in the nonbank sector

The Federal Reserve’s quarterly Senior Credit Officer Opinion Survey on Dealer Financing Terms provides information about the availability and terms of credit in securities financing and over-the-counter derivatives markets. See the Board’s website at <https://www.federalreserve.gov/data/scoos.htm>.

Borrowing by Businesses and Households

Excessive credit in the private nonfinancial sector can provide a transmission channel for a disruption in financial markets to affect the real economy ([figure 4.4](#)). Highly indebted households and nonfinancial businesses may have a difficult time withstanding negative shocks to incomes or asset values, and may be forced to curtail spending in ways that amplify the effects of financial shocks. In turn, losses among households and businesses can lead to mounting losses at financial institutions, creating an adverse feedback loop. The Federal Reserve monitors measures of vulnerabilities in the nonfinancial sector, including, for example, leverage and debt service burdens as well as underwriting standards on new loans to households and businesses.

This monitoring program is complemented by a broader effort to foster greater transparency in financial markets through improved data collection and enhanced disclosures by regulated financial market participants.

Greater transparency helps lead to meaningful implementation of macroprudential regulatory and supervisory policies. These policies are meant to address market vulnerabilities before they become critical issues and to pre-position the financial system to be better able to absorb shocks.

Why Proactive Monitoring of Domestic and Foreign Markets Matters

The changing nature of risks and fluctuations in financial markets and the broader economy require timely monitoring of domestic and foreign financial markets and their effect on financial institutions. They also require monitoring of the nonfinancial sector to identify buildups of vulnerabilities that might require further study or policy action.

To this end, the Federal Reserve maintains a flexible, forward-looking financial stability monitoring program to help inform policymakers of the financial system's vulnerabilities to a range of potential adverse events or shocks. Such a monitoring program is a critical part of a broader Federal Reserve System effort to assess and address vulnerabilities in the U.S. financial system. In the case of individual institutions, the Federal Reserve may take more direct action and in various ways (for more information, see [“How the Federal Reserve Regulates Financial Institutions”](#) on page 75 in [section 5](#), “Supervising and Regulating Financial Institutions and Activities”).

Microprudential supervision and regulation

The Federal Reserve also “microprudentially” supervises and regulates the operations of large financial institutions—that is, it monitors the safety and soundness of these and other individual institutions—and integrates this monitoring into its macroprudential supervisory and regulatory efforts.

For more information, see [section 5](#), “Supervising and Regulating Financial Institutions and Activities,” on page 62.

Examining Causes, Effects, and Remedies for Financial Instability

A macroprudential approach to ensuring financial stability builds on a substantial and growing body of research on the factors that lead to vulnerabilities in the financial system and how government policies can mitigate such risks.

The Federal Reserve actively engages in financial stability research to improve understanding of issues related to financial stability and to engage with the broader research community on crucial policy matters. This engagement often involves collaboration with researchers at other domestic and international institutions.

Box 4.2. Responding to Financial System Emergencies

The idea that a central bank should provide liquidity to support the financial system was refined by nineteenth-century economist Walter Bagehot, who suggested that during times of financial panic or crisis, a central bank should lend quickly and freely, at a penalty rate of interest, to any borrower with good collateral.

When a major shock—like a natural disaster, a terrorist attack, or a financial panic—occurs that severely stresses the financial system, people, businesses, and financial institutions need access to money and credit. Indeed, having this liquidity available can improve confidence in the economy and restore calm to markets, bolstering the stability of the financial system.

General authority during times of crisis. To provide liquidity during times of crisis, the Federal Reserve—like many central banks—is empowered to function as a “lender of last resort” (LOLR), and it uses different tools to fulfill this role.

In an emergency, the Federal Reserve has the power to provide liquidity to depository institutions using standard, traditional tools, like open market operations and discount window lending. Under section 13(3) of the Federal Reserve Act, the U.S. central bank also has authority to provide liquidity to nondepository institutions in “unusual and exigent circumstances.” Although the Federal Reserve has rarely exercised this LOLR clause enacted in 1932, it did use it during the 2007–09 financial crisis, as well as during the coronavirus disease COVID-19 pandemic, to prevent harm to the U.S. economy.

Broad-based lending only. Under amendments enacted under the Dodd-Frank Act, emergency lending programs under section 13(3) of the Federal Reserve Act must be broad-based and not designed to support a single institution, among other requirements. In addition, Congress requires that the Federal Reserve ensure that taxpayers are protected against losses. Consistent with this, actions taken under section 13(3) authority are taken with the approval of the Treasury secretary.

For a fuller discussion of how each of these lending tools works, see [section 3](#), “Conducting Monetary Policy,” on page 16.

Special Programs Implemented by the Fed Due to “Unusual and Exigent” Circumstances

In the spring of 2020, in response to the COVID-19 shock, the Federal Reserve established a number of emergency lending programs designed to support the credit needs of households and businesses. These programs led to significant changes to the Federal Reserve’s balance sheet.

Emergency lending facilities		Expanded open market operations
<ul style="list-style-type: none"> • Primary Dealer Credit Facility • Commercial Paper Funding Facility • Money Market Mutual Fund Liquidity Facility • Commercial Paper Funding Facility • Main Street Lending Program 	<ul style="list-style-type: none"> • Municipal Liquidity Facility • Paycheck Protection Program Lending Facility • Term Asset-Backed Securities Loan Facility • Primary Market Corporate Credit Facility • Secondary Market Corporate Credit Facility 	<p>Expanding its traditional tool of open market operations allowed the Federal Reserve to support the functioning of credit markets, put downward pressure on longer-term interest rates, and help to make broader financial conditions more accommodative through the purchase of longer-term securities for its portfolio.</p>

Source: Federal Reserve Credit and Liquidity Programs and the Balance Sheet, Crisis Response. See the Monetary Policy section of the Federal Reserve Board’s website, <https://www.federalreserve.gov/monetarypolicy.htm>. See also the COVID-19 Resources page of the Federal Reserve Board’s website, <https://www.federalreserve.gov/funding-credit-liquidity-and-loan-facilities.htm>.

Macroprudential Supervision and Regulation of Large, Complex Financial Institutions

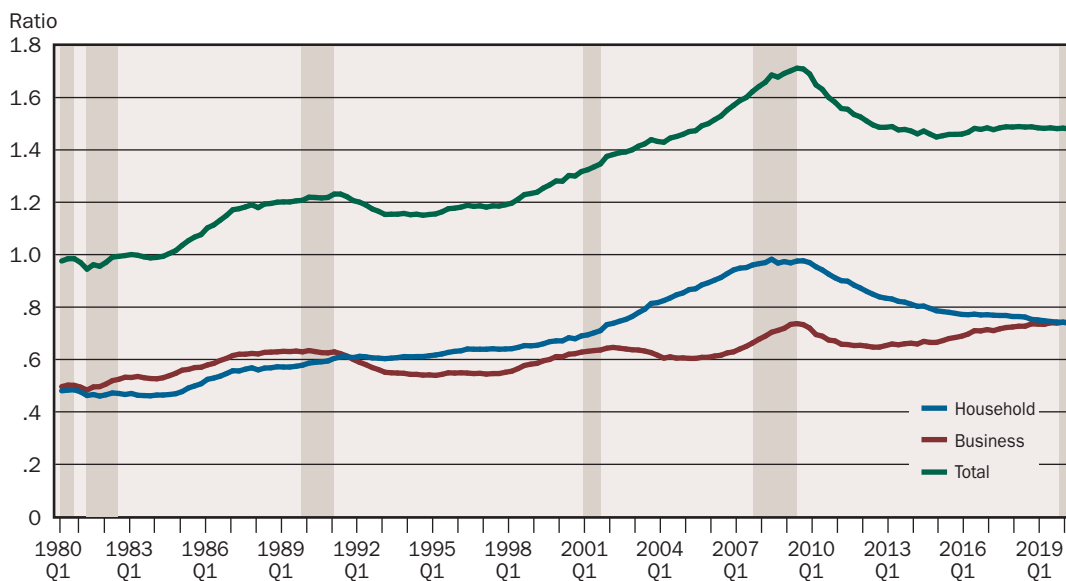
Large, complex financial institutions interact with financial markets and the broader economy in a manner that may—during times of stress and in the absence of an appropriate regulatory framework and effective supervision—lead to financial instability. The Federal Reserve promotes the safety and soundness of these institutions through robust supervision and regulation programs, two components of which are integral to its macroprudential efforts.

Monitoring Systemically Important Financial Institutions

The macroprudential approach informs Federal Reserve supervision of systemically important financial institutions (SIFIs)—including large bank holding companies, the U.S. operations of certain foreign banking organizations, and financial market utilities. In addition, the Federal Reserve serves as a “consolidated supervisor” of nonbank financial companies that the FSOC has determined should be supervised by the Federal Reserve Board and subject to prudential standards. (See “[Domestic and International Cooperation and Coordination](#)” on page 57 for more information on the FSOC.)

Figure 4.4. Monitoring borrowing in the nonfinancial sector

Borrowing by households and nonfinancial sector businesses can also influence financial stability. The Federal Reserve focuses on metrics, such as the ratio of household and nonfinancial business credit to nominal U.S. gross domestic product. This ratio has dropped below peaks reached around the time of the 2007–09 crisis.



Note: The shaded bars indicate periods of business recession as defined by the National Bureau of Economic Research.

Source: Federal Reserve Board, Statistical Release Z.1, “Financial Accounts of the United States.”

The Federal Reserve actively monitors indicators of the riskiness of SIFIs, both individually as well as through interlinkages in the broader network of financial institutions, to help identify vulnerabilities. It also imposes certain regulatory requirements on SIFIs in order to limit potentially risky activities by these institutions and to mitigate spillover of distress into the broader economy. If a SIFI were to become distressed, disruptions in the financial system could arise from direct losses imposed on SIFI counterparties, contagion, fire sales, or a loss of critical services.

Countercyclical Capital Buffer

The Countercyclical Capital Buffer (CCyB) is an element of the Federal Reserve's regulatory toolkit. It is a macroprudential tool designed to support lending and economic activity when economic conditions deteriorate. It augments minimum capital requirements when there is an elevated risk of above-normal losses, thus making capital requirements countercyclical, as required by the Dodd-Frank Act.

For more information, see <https://www.federalreserve.gov/newsevents/pressreleases/bcreg20160908b.htm>.

SIFIs are also subject to additional capital and liquidity regulations imposed by the Federal Reserve in order to help mitigate some of the additional risks they pose to the financial system as a whole, given their size and interconnectedness.

Moreover, during the 2007–09 financial crisis, the lack of effective resolution strategies contributed to the pernicious spillovers of distress at or between individual institutions and from

those institutions to the broader economy. The Federal Reserve, in collaboration with other U.S. agencies, has continued to work with large financial institutions to develop a range of recovery and resolution strategies in the event of their distress or failure. Improvements in resolution planning are intended to, among other things, mitigate adverse effects from perceptions of “too big to fail” and contribute to more orderly conditions in the financial system if institutions face strains or fail. (For more information on recovery and resolution planning activity, see [section 5](#), “Supervising and Regulating Financial Institutions and Activities,” on page 62.)

Stress Testing of Key Financial Institutions

One important element of enhanced supervision of SIFIs is the stress testing process, which includes the Dodd-Frank Act stress tests and the stress capital buffer rule. In addition to fostering the safety and soundness of the participating institutions, the stress test program includes macro-

“Stress testing” of large financial institutions

In 2020, 33 institutions participated in the Federal Reserve stress testing process, which occurs annually. For more information, see the “Stress Tests and Capital Planning” web page, located on the Board's website (<https://www.federalreserve.gov/bankinforeg/stress-tests-capital-planning.htm>).

prudential elements such as

- examination of the loss-absorbing capacity of institutions under a common macroeconomic scenario that has features similar to the strains experienced in a severe recession and which includes, as appropriate, identified salient risks;

- conducting horizontal testing across large institutions to understand the potential correlated exposures; and
- consideration of the effects of counterparty distress on the largest, most interconnected firms.

The macroeconomic and financial scenarios that are used in the stress tests have proved to be an important macroprudential tool. The Federal Reserve adjusts the severity of the macroeconomic scenario used in the stress tests in a way that counteracts the natural tendency for risks to build within the financial system during periods of strong economic activity. The scenarios can also be used to assess the financial system's vulnerability to particularly significant risks and to highlight certain risks to institutions participating in the testing.

Financial stability policy and research

The Federal Reserve works to identify threats to financial stability and develop effective policies to address those threats through its Division of Financial Stability. This division monitors financial markets, institutions, and structures and also conducts research on financial stability issues. For more information, see the complete list of Federal Reserve Board working papers (<https://www.federalreserve.gov/financial-stability.htm>).

Intersection of Financial Stability and Monetary Policy

Promotion of financial stability strongly complements the primary goals of monetary policy—maximum employment and price stability. A smoothly operating financial system promotes the efficient allocation of savings and investment, facilitating economic growth and employment. And price stability contributes not only to the efficient allocation of resources in the real economy (that is, the part of the economy that produces goods and services), but also to reduced uncertainty and efficient pricing in financial markets that, in turn, supports financial stability.

Domestic and International Cooperation and Coordination

Economic and financial volatility in any country can have negative consequences for the world, but sizable and significant spillovers are almost assured from an economy that is large.

In its role promoting financial stability, the Federal Reserve cooperates and coordinates with many other domestic and international regulatory and policy entities. The FSOC is an important forum for cooperation with other domestic agencies (figure 4.5). The primary venues for international cooperation occur through the Basel Committee on Banking Supervision and the FSB.

Domestic Engagement through the Financial Stability Oversight Council

The FSOC, created in 2010 under the Dodd-Frank Act and chaired by the U.S. Treasury Secretary, draws on the expertise of the Federal Reserve and other regulators to proactively identify risks to financial stability, promote market discipline, and respond to emerging threats. The Chair of the

Figure 4.5. The framework for monitoring U.S. financial system stability

The Financial Stability Oversight Council (FSOC), a blend of federal and state regulators, meets routinely to coordinate on financial stability topics that might affect the U.S. economy and makes publicly available its meeting minutes, annual report, and various other studies and statements. For more information, see the FSOC website (<https://home.treasury.gov/policy-issues/financial-markets-financial-institutions-and-fiscal-service/fsoc>).



¹ Non-voting member serves two-year term.

² Non-voting member.

Federal Reserve is a member of the FSOC, and the Federal Reserve works to support the activities of the FSOC and other U.S. government agencies in the pursuit of financial stability.

Through collaborative participation in the FSOC, U.S. financial regulators monitor not only institutions but the financial system as a whole. The Federal Reserve plays an important role in this macroprudential framework: it assists in monitoring financial risks, analyzes the implications of those risks for financial stability, and identifies steps that can be taken to mitigate those risks.

Regular reporting on FSOC activities

The Financial Stability Oversight Council (FSOC) meets routinely to coordinate on financial stability topics that might affect the U.S. economy and publishes both its monthly meeting minutes and annual report. For more information, see the FSOC website (<https://home.treasury.gov/policy-issues/financial-markets-financial-institutions-and-fiscal-service/fsoc>).

Engagement with Regulatory Authorities Abroad

The Federal Reserve participates in international bodies, such as the Basel Committee on Banking Supervision and the FSB, to address issues associated with the interconnected global financial system and the global activities of large U.S. financial institutions ([figure 4.6](#)).

Through both venues, the Federal Reserve is engaged with the international community in monitoring the global financial system and promoting the adoption of sound policies across countries.

Central banks around the world

The central bank concept dates to 1668 when Sweden's Riksbank was formed.

As of June 2019, there were 179 central banks and monetary authorities around the world, and the Federal Reserve interacts with many of them in its efforts to promote financial stability in the U.S. and global economies.

See <https://www.bis.org/cbanks.htm> for a listing of central banks.

Figure 4.6. Monitoring financial system stability requires global cooperation

What happens in the global economy can influence—sometimes greatly—the stability of the U.S. economy. Because the U.S. dollar is a widely used global currency and because the world's economies are interdependent, the Federal Reserve works closely with central banks and other public authorities around the world to address international financial issues and promote financial stability.

International authority/ deliberative body	Overview/Federal Reserve engagement
Financial Stability Board Established: 2009 Location: Basel, Switzerland Website: https://www.fsb.org	The Financial Stability Board (FSB), successor to the Financial Stability Forum, promotes stability in the international financial system through enhanced cooperation among various national and international supervisory bodies and international financial institutions. The Federal Reserve Board and other U.S. agencies participate in FSB efforts, which specifically seek to coordinate the development of regulatory, supervisory, and other financial sector policies.
Central banks Established: 1668 or later Location: Throughout the world Website: https://www.bis.org/central_bank_hub_overview.htm	Nearly all developed and developing nations maintain central banks to promote a sound and stable financial system and well-functioning economies. Indeed, Federal Reserve officials engage regularly and collectively with other central banks to discuss broad trends affecting the global financial system; one-on-one bank engagement also occurs in special circumstances where coordination and cooperation can help keep the global financial system operating smoothly.
Bank for International Settlements Established: 1930 Location: Basel, Switzerland Website: https://www.bis.org	The Bank for International Settlements seeks, among other things, to foster discussion and facilitate collaboration among central banks and supports dialogue with other authorities that are responsible for promoting financial stability. The Federal Reserve participates in the deliberations of this financial organization, whose members include 60 member central banks, representing countries from around the world that together make up about 95 percent of world gross domestic product.
G7 & G20 Established: 1975 (as G6) Location: Varies by nation hosting Website: Varies by nation hosting	The Group of Seven (G7) is an informal bloc of industrialized democracies (also including Canada, France, Germany, Italy, Japan, and the United Kingdom) that meets annually to discuss global economic issues. Federal Reserve officials engage regularly with the G7 and G20 to discuss macroeconomic policy surveillance, the international financial system, and a wide range of policy issues, such as development and policy proposals to encourage strong, sustainable, and balanced growth.
International Monetary Fund Established: 1945 Location: Washington, D.C. Website: https://www.imf.org	The International Monetary Fund (IMF) works to “foster global monetary cooperation, secure financial stability, facilitate international trade, promote high employment and sustainable economic growth, and reduce poverty around the world.” The Federal Reserve is a member of the International Monetary and Financial Committee, which advises and reports to the IMF Board of Governors on the supervision and management of the international monetary and financial system, including on responses to unfolding events that may disrupt the system.
Organisation for Economic Co-operation and Development Established: 1961 Location: Paris, France Website: https://www.oecd.org	The Organisation for Economic Co-operation and Development (OECD) promotes “policies that will improve the economic and social well-being of people around the world.” The Federal Reserve participates in several OECD forums to discuss current economic issues and projections for the global economic outlook, and to promote policies that will improve global economic well-being.
World Bank Established: 1944 Location: Washington, D.C. Website: https://www.worldbank.org	The World Bank functions as a cooperative of 189 member countries. These member countries, or shareholders, are represented by a board of governors, who are the ultimate policymakers at the World Bank. Generally, the governors are member countries’ ministers of finance or ministers of development. The Federal Reserve interacts informally with the World Bank, largely through the International Monetary Fund.

5

Supervising and Regulating Financial Institutions and Activities

The Federal Reserve promotes the safety and soundness of individual financial institutions and monitors their impact on the financial system as a whole.

Overview of the Federal Reserve's Financial Institution Oversight . . .63

How the Federal Reserve Supervises Financial Institutions69

How the Federal Reserve Regulates Financial Institutions75

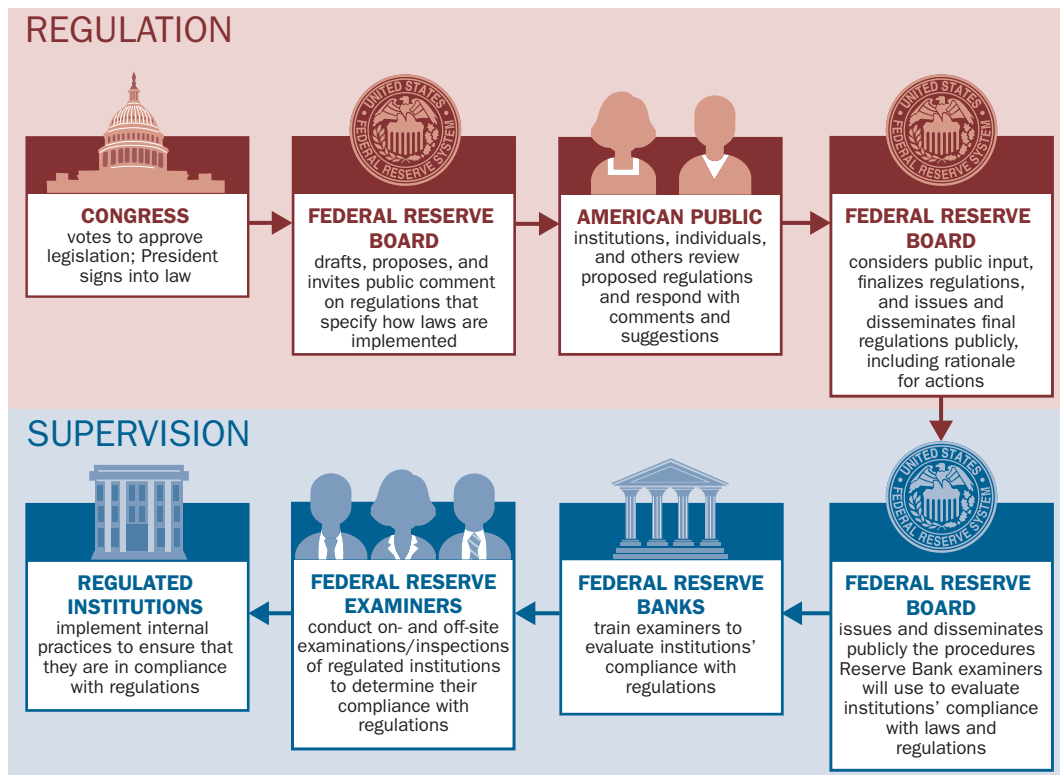
The Federal Reserve regulates and supervises financial institutions to ensure that they operate safely. In addition, the Federal Reserve monitors the financial system as a whole by identifying and analyzing potential risks to financial institutions, the broader financial system, and the economy. A safe, sound, and efficient banking and financial system contributes to a strong economy.

Overview of the Federal Reserve's Financial Institution Oversight

The Federal Reserve engages in a range of activities to promote a safe and sound financial system. It does this through the distinct, but complementary, activities of regulation and supervision (see [figure 5.1](#)). Regulation entails establishing the rules within which financial institutions must operate—in other words, issuing specific rules and guidelines governing the formation, operations, activities, and acquisitions of financial institutions. Once the rules and regulations are established, supervision—which involves monitoring and examining financial institutions—seeks to ensure that an institution complies with those rules and regulations, and that it operates in a safe and sound manner.

Figure 5.1. How the regulation and supervision process works

When Congress passes a law that impacts the financial industry, the Federal Reserve—sometimes in cooperation with other federal agencies—often issues regulations that determine how the law will be implemented.

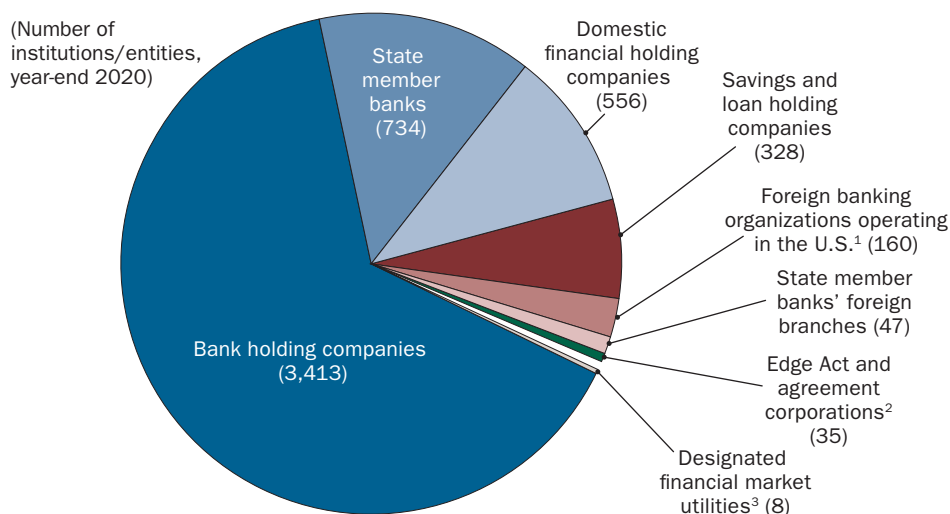


Entities the Federal Reserve Oversees

By law, the Federal Reserve is responsible for supervising and regulating certain segments of the financial industry to ensure they employ safe and sound business practices and comply with all applicable laws and regulations (figure 5.2).

Figure 5.2. 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.



¹ Foreign banking organizations primarily operate in the U.S. through branches, agencies, and representative offices, as well as through state member banks, U.S. intermediate and bank holding companies, and Edge Act and agreement corporations.

² Edge Act and agreement corporations are subsidiaries of banks or bank holding companies, organized to allow international banking and financial business.

³ Financial market utilities (FMUs) are multilateral systems that provide the essential infrastructure for transferring, clearing, and settling payments, securities, and other financial transactions among financial institutions or between financial institutions and within those systems. The Federal Reserve supervises FMUs, including those that have been designated systemically important by the Financial Stability Oversight Council.

Note: Entities supervised are not mutually exclusive; for example, bank and savings and loan holding companies may own other supervised entities listed.

For more information, see the "Supervision and Regulation" section of the Board's 2020 *Annual Report*, <https://www.federalreserve.gov/publications/annual-report.htm>.

Bank Holding Companies (Including Financial Holding Companies)

Banks are often owned or controlled by another company, called a bank holding company (BHC). The Federal Reserve has supervisory and regulatory authority for all BHCs, regardless of whether subsidiary banks of the holding company are national banks, state "member" banks, or state "nonmember" banks (see a complete discussion of "State Member Banks" beginning on page 65). It also has supervisory authority over any nonbank subsidiary of a BHC that is not functionally regulated by another federal or state regulator, such as a leasing subsidiary.

BHCs that meet certain criteria are permitted to become financial holding companies (FHCs, also under Federal Reserve supervisory and regulatory authority). These entities may own nonbank companies, including merchant banking investments and entities that engage in other activities, such as securities underwriting and dealing, insurance underwriting, and insurance agency activities. The Federal Reserve coordinates its supervisory efforts with the functional regulator of nonbank subsidiaries, such as the U.S. Securities and Exchange Commission (SEC) in the case of a broker-dealer, and state insurance regulators in the case of an insurance company.

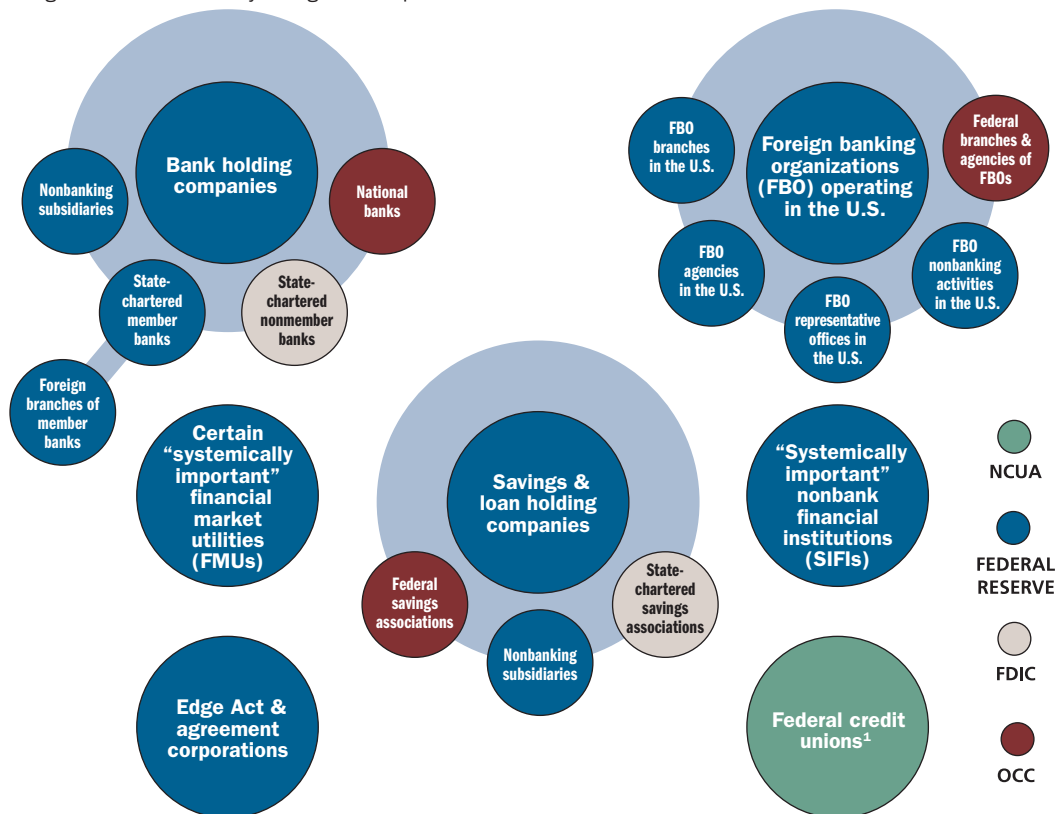
State Member Banks

The Federal Reserve is the primary federal supervisor of state-chartered banks that have chosen to join the Federal Reserve System. Such domestically operating banks are called “state member banks.”

The primary federal supervisor of a domestic bank (figure 5.3) is generally determined by two key factors: (1) whether the bank chooses to operate under a federal or state charter and (2) whether the bank is a member of the Federal Reserve System.

Figure 5.3. Oversight of the financial industry is shared among federal regulators

The primary supervisor of a domestic banking organization is generally determined by the type of institution it is and the governmental authority that granted it permission to commence business.



Note: Figure 5.3 focuses on the federal banking regulators. Other federal regulators oversee the financial industry as well, including the Securities and Exchange Commission, the Commodities Futures Trading Commission, and the Consumer Financial Protection Bureau, among others.

¹ Federal credit unions are not considered part of the banking industry, but offer similar if more limited services than banks.

Banks chartered by a state government entity are referred to as state banks; banks that are chartered by the Office of the Comptroller of the Currency (OCC), an independent bureau of the U.S. Department of the Treasury, are referred to as national banks.

State banks that are not members of the Federal Reserve System (collectively referred to as “state nonmember banks”) are supervised by the Federal Deposit Insurance Corporation (FDIC). In addition to being supervised by the Federal Reserve or the FDIC, state banks are also supervised by their chartering state. In contrast, the OCC supervises national banks that choose to charter at the federal level.

U.S. Banks’ International Operations

The Federal Reserve has supervisory and regulatory responsibility for the international operations of state member banks and BHCs (figure 5.4). These responsibilities include

- authorizing the establishment of foreign branches of national banks and state member banks, and regulating the scope of their activities;
- chartering and regulating the activities of Edge Act and agreement corporations (as noted below, specialized institutions used for international and foreign business);
- authorizing the foreign investments of member banks, Edge Act and agreement corporations, and BHCs, and regulating the activities of foreign firms acquired by such investors; and
- establishing supervisory policies and practices regarding foreign lending by state member banks.

Figure 5.4. U.S. banks operate globally

The Federal Reserve is responsible for examining the international operations of member banks and bank holding companies. These banking organizations do business in more than 80 countries on six continents.



Note: For more information on the international activities of U.S. banking organizations, see the “Supervision and Regulation” section of the Board’s *Annual Report*, <https://www.federalreserve.gov/publications/annual-report.htm>. Also see the E.16 statistical release: “Country Exposure Lending Survey and Country Exposure Information Report,” <https://www.ffiec.gov/E16.htm>.

U.S. banking organizations may conduct a wide range of overseas activities. The Federal Reserve has broad discretionary powers to regulate the foreign activities of state member banks and BHCs so that, in financing U.S. trade and investments abroad, these U.S. banking organizations can be competitive with institutions of the host country without compromising the safety and soundness of their global or U.S. operations.

Consistent with the principle of risk-focused supervision, the Federal Reserve conducts examinations of the international operations of state member banks, Edge Act and agreement corporations, and BHCs as a component of its overall assessment of the financial, operational, and compliance risks of supervised institutions and the risk-management processes and procedures to control such risks. The Federal Reserve conducts examination activities of international operations both at the U.S. head offices of supervised institutions and abroad. Examinations conducted abroad are done with the cooperation of host-country supervisors.

Bank charters affect which agency supervises

The current U.S. supervisory system for banks, in which an institution may be either federally or state-chartered, and may belong to the Federal Reserve System or not, has evolved historically. The Federal Reserve shares supervisory and regulatory responsibility for domestic banks with other federal regulators and with individual state banking departments.

Foreign Banks' U.S. Operations

The International Banking Act of 1978 (IBA) created a federal regulatory structure for the activities of foreign banks with U.S. branches and agencies. The IBA also established a policy of “national treatment” for foreign banks operating in the United States to promote competitive equality between them and domestic institutions. This policy generally gives foreign banking organizations operating in the United States the same powers as U.S. banking organizations and subjects them to the same restrictions and obligations that apply to the domestic operations of U.S. banking organizations.

The Foreign Bank Supervision Enhancement Act of 1991 increased the responsibility and the authority of the Federal Reserve to regularly examine the U.S. operations of foreign banks. The Federal Reserve coordinates the supervisory program for the U.S. operations of foreign banking organizations with other federal and state banking agencies. Since a foreign banking organization may have both federally chartered/licensed and state-chartered/licensed offices in the United States and nonbanking operations, the Federal Reserve plays a key role in assessing the condition of the organization's entire U.S. operations and the foreign banking organization's ability to support its U.S. operations.

A foreign banking organization with U.S. non-branch assets of \$50 billion or more is required to establish an intermediate holding company (IHC) over its U.S. subsidiaries. IHCs are generally subject to requirements that are consistent with those that apply to U.S. BHCs.

Edge Act and Agreement Corporations

Edge Act and agreement corporations are U.S. financial institutions that carry out international banking and financing operations, some of which the parent banks themselves are not permitted to undertake under existing laws. These corporations, which are examined annually, may act as holding companies, provide international banking services, and finance industrial and financial projects abroad, among other activities.

Savings and Loan Holding Companies

Savings and loan holding companies (SLHCs) directly or indirectly control either a savings association or another SLHC. Savings associations can choose either a federal or a state charter. Federally chartered savings associations are supervised by the OCC, while state-chartered savings associations are generally supervised by the FDIC and their chartering

state. The Federal Reserve supervises and regulates all SLHCs regardless of the charters of the subsidiary savings associations. As with BHCs, an SLHC that meets certain criteria may also elect to be treated as an FHC.

Finding data on institutions supervised by the Federal Reserve

The National Information Center (<https://www.ffiec.gov/NPW>) is a repository, maintained by the Federal Financial Institutions Examination Council, that provides data about banks and other institutions, including both domestic and foreign banking organizations operating in the United States.

Certain Insurance Holding Companies

The Federal Reserve is responsible for the consolidated supervision of insurance holding companies that are SLHCs. While the activities of insurance companies may differ from the activities of state member banks and BHCs, the Federal Reserve's principal supervisory objectives for insurance holding companies remain protecting the safety and soundness of the consolidated firms and their subsidiary depository institutions. To achieve these objectives, the Federal Reserve coordinates supervisory activities with state insurance regulators, who continue to have oversight of insurance legal entities.

Financial Market Utilities

Financial market utilities (FMUs) and financial institutions participating in payment, clearance, and settlement (PCS) activities comprise the nation's financial infrastructure. This infrastructure supports millions of financial transactions every day and encompasses many transactional elements: large-value PCS systems for financial transactions, including central counterparties, foreign-exchange settlement systems, and large-dollar funds transfer systems. The smooth and reliable functioning of this financial infrastructure at all times is vitally important to the stability of the financial system and the health of the broader economy.

For more information on regulation and supervision of the payment and settlement system, see “[Regulating and Supervising the Payment System](#)” on page 104.

Nonbank Financial Companies

The Dodd-Frank Wall Street Reform and Consumer Protection Act of 2010 (Dodd-Frank Act) assigned the Federal Reserve the authority and responsibility to supervise and regulate certain nonbank financial companies that the Financial Stability Oversight Council (FSOC) has determined should be subject to Board supervision and prudential standards.

These firms—whose failure could pose a threat to U.S. financial stability—are subject to comprehensive, consolidated supervision and regulation by the Federal Reserve. This provision of the Dodd-Frank Act addresses an important regulatory gap that existed before the 2007–09 financial crisis.

Other Federal Authorities and Entities

The Federal Reserve shares responsibility for ensuring financial institutions operate safely and soundly. Based on a bank’s activities and how it is formed, it may be supervised and regulated by a regulator other than the Federal Reserve ([figure 5.3](#)). Federal and state regulators collaborate, for example by sharing data and examination findings where appropriate, to ensure that supervision and regulation of financial institutions are effective, efficient, and consistent.

Two councils—comprised of federal and state regulators and including Federal Reserve representatives—play important coordinating roles in the supervision and regulation of financial

institutions: the FSOC, and the Federal Financial Institutions Examination Council (FFIEC). For information on the FSOC, see the “[Promoting Financial System Stability](#)” section ([figure 4.5](#)). The FFIEC is a formal interagency body that includes representatives of the Federal Reserve Board, the FDIC, the OCC, the Consumer Financial Protection Bureau, the National Credit Union Administration, and the State Liaison Committee. For more information on the FFIEC, visit <https://www.ffiec.gov>.

What does “systemically important” mean?

If the Financial Stability Oversight Council (FSOC) determines that a nonbank financial company’s material financial distress—or the nature, scope, size, scale, concentration, interconnectedness, or mix of its activities—could pose a threat to U.S. financial stability, the company is often referred to as being “systemically important” and requires supervision by the Federal Reserve.” Similarly, the FSOC may designate certain financial market utilities as systemically important.

How the Federal Reserve Supervises Financial Institutions

In overseeing the institutions under its authority, the Federal Reserve seeks primarily to promote their safe and sound functioning, as well as their compliance with all applicable laws and regulations that govern their activities.

Examinations and Inspections

The main objective of the Federal Reserve's supervisory process is to assess and help ensure the overall safety and soundness of individual banking organizations. This evaluation includes an assessment of an organization's risk-management systems, financial condition, and compliance with applicable laws and regulations.

Supervision of the largest institutions includes regular horizontal examinations—comparing the activities of similar firms to ensure safe and sound practices—and firm-specific supervisory activities to assess their financial resiliency and risk-management practices. Supervision of smaller institutions largely entails point-in-time examinations and off-site monitoring.

Supervision of Large, Complex Institutions

The Federal Reserve applies heightened prudential standards to the largest, most complex U.S. holding companies and foreign banking organizations. These standards become progressively more stringent as the risk profile or systemic importance of that regulated entity increases. Standards include enhanced risk-based capital and leverage requirements, liquidity requirements, stress tests, and resolution plan (that is, “living will”) requirements.

Who conducts examinations and inspections?

Examinations and inspections are conducted by Federal Reserve examiners, professionals who work at local Federal Reserve Banks. They are rigorously trained to keep abreast of ever-evolving laws and regulations to which regulated entities are subject.

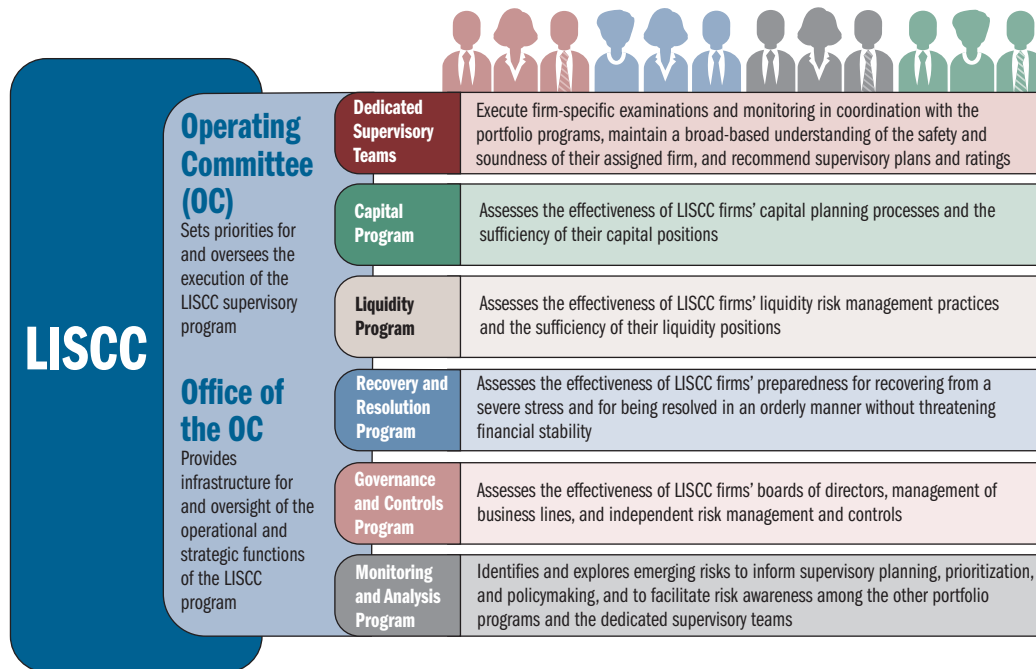
The Large Institution Supervision Coordinating Committee (LISCC) program supervises the firms that pose elevated risks to U.S. financial stability ([figure 5.5](#)). The LISCC program is a national program that uses both horizontal and firm-specific supervisory activities to assess the financial resiliency and risk-management practices of banking organizations that present elevated risk to U.S. financial stability and nonbank financial companies that the FSOC has determined should be supervised by the Board.

Supervision of Smaller Regional and Community Banks

The Federal Reserve supervises and regulates smaller banks based on a variety of factors, including size, condition, risk profile, and organizational structure.

Figure 5.5. Federal Reserve supervisory program for the largest, most complex institutions

The Large Institution Supervision Coordinating Committee (LISCC) is a collaborative body providing Systemwide and cross-disciplinary perspectives on the supervision of banking organizations and nonbank financial companies that present elevated risk to U.S. financial stability.¹



¹ For more information on the LISCC supervisory program structure and a list of firms in the LISCC portfolio, see <https://www.federalreserve.gov/supervisionreg/large-institution-supervision.htm>.

By statute, state member banks must be examined at least once every 12 months. Banks that have assets of less than \$3 billion and that also meet certain management, capital, and other criteria are examined less frequently (once every 18 months). Banks that are in troubled condition are examined more frequently. The Federal Reserve coordinates its examinations of state member banks with those of the chartering state's bank supervisor and it may alternate examinations with the bank's state supervisor.

The objectives of an examination are, essentially, to

1. provide an objective evaluation of a bank's soundness;
2. determine the level of risk involved in the bank's transactions and activities;
3. ascertain the extent of the bank's compliance with banking laws and regulations;
4. evaluate the adequacy of the bank's corporate governance and assess the quality of its board of directors and management; and
5. identify those areas where corrective action is required to strengthen the bank, improve its financial and managerial condition, and ensure compliance with applicable laws and regulations.

Supervision of community banks that are state member banks is primarily through a point-in-time, full-scope examination. Supervision of regional banks is slightly more intensive, and consists of a limited number of risk-focused examinations and continuous monitoring.

The Federal Reserve generally conducts an annual full-scope inspection of BHCs and SLHCs with consolidated assets of \$3 billion or greater, as well as smaller BHCs or SLHCs that have significant nonbank activities or elevated risk profiles. Regional banks and holding companies are assigned ratings annually, based on continuous supervisory work conducted throughout the year. In the case of small, noncomplex BHCs and SLHCs whose consolidated assets are primarily held by subsidiaries, Federal Reserve examiners rely heavily on off-site monitoring and on the results of examinations of the company's subsidiary banks or savings associations by the primary federal or state authorities. This approach minimizes duplication of supervisory activities and reduces burden for smaller financial institutions.

Results of an Examination or Inspection

Supervisory Ratings

The results of examination or inspection-related supervisory activities are reported to the board of directors and management of the bank, BHC, or SLHC in a confidential report or letter of examination or inspection, which can include confidential supervisory ratings of the condition of the institution. Each state member bank receives a composite rating, which reflects the Federal Reserve's overall assessment and individual component ratings of the bank's capital adequacy, asset quality, management, earnings, liquidity, and sensitivity to market risk (CAMELS). Ratings range from "1" to "5," with "1" being the best. The CAMELS supervisory rating for banks and other depository institutions is a tool that all U.S. federal and state banking agencies use to convey to financial institutions the agencies' assessment of the institution and to identify institutions whose operations raise concern or require special attention.

Each domestic BHC and non-insurance, non-commercial SLHC also receives a supervisory rating. The largest BHCs and SLHCs, which have \$100 billion or more of total assets, and IHCs of foreign banking organizations receive ratings on three areas: capital planning and positions, liquidity risk management and positions, and governance and controls. There is no composite rating for this rating scale, known as the Large Financial Institution or LFI rating scale. Examiners assign ratings for each of these aspects of a firm's performance on a four-point scale:

- Broadly Meets Expectations
- Conditionally Meets Expectations
- Deficient-1
- Deficient-2

"Broadly Meets Expectations" is the best rating and "Deficient-2" is the worst.

BHCs and SLHCs with less than \$100 billion in consolidated assets are rated on a different scale, known as the RFI rating scale. These firms receive a composite rating, which reflects the Federal Reserve's assessment and ratings of the company's risk management, financial condition, and potential impact on affiliated depository institutions (RFI/C(D)). Ratings range from "1" to "5," with "1" being the best (figure 5.6).

Figure 5.6. Depository institutions and holding companies receive ratings based on the result of examinations and inspections

Ratings, which are assigned to an institution after an examination or inspection, provide a summary measure of the examination's findings.

Rating system	CAMELS	RFI/C(D)	LFI
Applicability	Depository institutions	Bank holding companies (BHCs) Savings and loan holding companies (SLHCs)*	Large BHCs Large SLHCs Intermediate holding companies**
Components	<ul style="list-style-type: none"> • Capital adequacy • Asset quality • Management • Earnings • Liquidity • Sensitivity to market risk 	<ul style="list-style-type: none"> • Risk management <ul style="list-style-type: none"> – effectiveness of the banking organization's risk management and controls; board and senior management oversight; policies, procedures, and limits; risk monitoring and management information systems; and internal controls • Financial condition <ul style="list-style-type: none"> – an assessment of the banking organization's capital, asset quality, earnings, and liquidity • potential Impact of the parent company and nondepository subsidiaries on the affiliated depository institutions • the consolidated Composite condition of the institution • the CAMELS rating of the affiliated Depository institutions 	<ul style="list-style-type: none"> • Capital planning and positions • Liquidity risk management and positions • Governance and controls
Results	For CAMELS and RFI/C(D) ratings systems, institutions score on a scale of 1 (best) to 5 (worst) for each factor.		Each Large Financial Institution or component is rated based on a four-point non-numeric scale: Broadly Meets Expectations (best), Conditionally Meets Expectations, Deficient-1, and Deficient-2 (worst)

* BHCs and non-insurance, non-commercial SLHCs with total consolidated assets less than \$100 billion.

** BHCs and all non-insurance, non-commercial SLHCs with total consolidated assets of \$100 billion or more; and U.S. intermediate holding companies of foreign banking organizations with combined U.S. assets of \$50 billion or more.

Examination Report

In addition to assigning ratings, examiners also prepare a detailed report that, besides formally communicating the ratings, (1) describes the institution's activities and management structure,

(2) assesses the institution's performance, and (3) recommends changes or improvements in certain policies and procedures.

Enforcement

If the Federal Reserve determines that a supervised institution has problems that affect its safety and soundness, or that the institution is not in compliance with applicable laws and regulations, the Federal Reserve may, by law, take action to ensure that the institution undertakes corrective measures. For more information about enforcement actions, see the Board's website, <https://www.federalreserve.gov/supervisionreg/legal-developments.htm>.

Risk-Focused Approach to Consolidated Supervision

Consolidated supervision of holding companies encompasses the parent company and its subsidiaries, and allows the Federal Reserve to understand the organization's structure, activities, resources, and risks, as well as to address financial, managerial, operational, or other deficiencies before they pose a danger to the holding company's subsidiary depository institution(s).

How the Federal Reserve enforces consumer- and community-oriented laws and regulations

To learn more about the Federal Reserve's enforcement of consumer protection laws and regulations, see [section 7](#), "Promoting Consumer Protection and Community Development," on page 112.

In supervising financial institutions, the Federal Reserve takes a risk-focused approach, which focuses on business activities of a supervised financial institution that may pose the greatest risk. This approach results in an efficient and rigorous oversight of firms that pose increased risk to the financial system. To implement this approach, the Federal Reserve:

1. identifies the greatest risks and emerging risks to a supervised institution; and
2. assesses the ability of the institution's management to identify, measure, monitor, and control these risks.

For the largest financial institutions, which have grown in both size and complexity in recent years, this risk-focused approach is typically implemented through a continuous process of on-site supervision rather than through point-in-time examinations.

Off-Site Monitoring

In its ongoing off-site supervision of banks and holding companies, the Federal Reserve uses automated systems to (1) proactively identify institutions with poor or deteriorating financial profiles and (2) help detect adverse trends developing in the banking industry.

For example, the Federal Reserve's Supervision and Regulation Statistical Assessment of Bank Risk (SR-SABR) system uses an econometric modeling framework to identify weak and potentially

weak banks. By using this system, the Federal Reserve can more effectively direct examiner resources to those institutions needing supervisory attention.

Participation in Supervisory Colleges

With the growth of the international operations of large global financial institutions, the Federal Reserve and other U.S. and foreign banking supervisors have broadened and formalized cooperative arrangements through “supervisory colleges.” Supervisory colleges are multilateral working groups of relevant supervisors that are formed to promote effective, ongoing consolidated supervision of the overall operations of an international banking group. Cooperation within the working groups involves bilateral and multilateral contacts and formal and informal information-sharing arrangements.

Financial Sector Monitoring

Ensuring the safe and efficient functioning of the nation's banking system requires that the Federal Reserve consider more than the safety and soundness of individual organizations.

This duty requires that the Federal Reserve also consider factors that can affect the stability of the entire financial system, including the interactions between firms and markets (see [section 4](#), on page 46).

Crisis Management Groups

The Federal Reserve participates in crisis management groups with other state and U.S. regulatory agencies and foreign banking supervisors responsible for the oversight of large cross-border banking groups. The purpose of crisis management groups is to enhance preparedness for, and facilitate the management and resolution of, a financial crisis affecting a large global banking group. This cooperation involves bilateral and multilateral contacts and formal and informal dialogue focused on the development of a framework for early intervention triggers around recovery efforts and resolution planning.

Box 5.1. Microprudential versus Macroprudential Supervision

The Federal Reserve takes a two-pronged approach to its oversight of financial institutions:

- 1. The microprudential approach** seeks to ensure the safety and soundness of individual institutions and involves in-depth examinations and inspections of the structure, operations, and compliance of individual entities regulated by the Federal Reserve.
- 2. The macroprudential approach** focuses on the soundness and resilience of the financial system as a whole and addresses how the actions of one institution, or set of institutions, can impact other institutions and the U.S. economic and financial system overall.

These two approaches to supervision are complementary. The financial system as a whole is more likely to be stable if its constituent organizations are sound. And traditional, firm-specific oversight provides the knowledge base for a more systemic, macroprudential approach. It is not possible to understand developments in the financial system as a whole without a clear view of developments within key firms and markets.

How the Federal Reserve Regulates Financial Institutions

The Federal Reserve issues regulations and policy statements or other forms of supervisory guidance to supervised institutions to ensure its approach to supervision and regulation keeps up with a changing financial and banking landscape. Regulations can be restrictive (limiting the scope of an institution's activities), prescriptive (requiring institutions to take certain actions), or permissive (authorizing institutions to engage in certain activities).

New regulations may be adopted or existing ones revised—for example, in response to new laws enacted by Congress or because of evolving risk conditions in the financial marketplace.

If Congress enacts a legislative change—perhaps in response to a past crisis or problem, or to adapt the nation's banking laws to re-

spond to changes in the marketplace—the Federal Reserve might issue regulations to ensure that institutions comply with the new law (see [figure 5.7](#) for a list of Federal Reserve regulations and the topics they address).

Finding orders and agreements online

All formal enforcement orders issued by the Federal Reserve and all written agreements executed by Federal Reserve Banks are available to the public in the News & Events section of the Federal Reserve Board's website, <https://www.federalreserve.gov/newsevents.htm>.

Regulation of the financial system must continuously evolve in response to changing laws and conditions in the marketplace in order to ensure that supervised institutions operate in a safe and sound manner.

Box 5.2. A Further Evolution: Taking Corrective Action to Address Troubled Institutions

The Federal Deposit Insurance Corporation Improvement Act of 1991 requires regulators to take prompt corrective action (PCA) to address the problems of troubled depository institutions. The intent of PCA is to minimize the long-term cost to the Deposit Insurance Fund of resolving such institutions.

The PCA framework specifies mandatory actions that regulators must take, as well as discretionary actions they must consider taking, when a bank's capital position declines or is deemed to have declined below certain threshold levels as a result of an unsafe or unsound condition or practice.

The state of a bank's capital position is measured based on risk-based capital and leverage ratios derived from the bank's Call Report data. Based on its levels of these ratios, a bank can be deemed (1) well-capitalized, (2) adequately capitalized, (3) undercapitalized, (4) significantly undercapitalized, or (5) critically undercapitalized. The law provides for increasingly stringent corrective provisions as a bank is placed in progressively lower capital categories.

Undercapitalized and significantly undercapitalized institutions likely would be required to submit and implement an acceptable plan to restore capital. A critically undercapitalized bank faces receivership unless its condition improves and the activities that expose it to risk are restricted.

Capital Adequacy and Planning

A key goal of banking regulation is to ensure that banks maintain sufficient capital. Capital can act as a buffer to absorb unexpected losses. To be resilient, a bank must maintain enough capital to support the risks associated with its exposures and activities.

Risk-Based Capital and Leverage Requirements

The Federal Reserve and the other federal banking agencies have established capital requirements for

- insured depository institutions;
- BHCs, IHCs, and SLHCs that are organized in the United States, including any such company that is owned or controlled by a foreign organization.

Capital requirements include risk-based requirements and leverage requirements. The Federal Reserve also conducts regular stress tests on large banking organizations. For the largest, most systemically important firms, the Federal Reserve has imposed an additional capital surcharge designed to reduce the threat that a failure of any of these firms would pose to financial stability. Community banks can opt to follow a simpler capital rule that consists solely of a leverage ratio requirement.

Capital Planning and Stress Testing

The Federal Reserve has worked to ensure that large, complex financial institutions strengthen their capital positions and capital planning processes. One aspect of this has been working with firms to bolster their internal processes for assessing capital needs. The Federal Reserve has developed and implemented a regular supervisory review of the capital plans of the largest banking organizations.

The Federal Reserve's Dodd-Frank Act stress test includes annual supervisory and company-run stress tests for the largest banking organizations. The supervisory stress test assesses whether firms are sufficiently capitalized to absorb losses during stressful conditions while meeting obligations to creditors and counterparties and continuing to be able to lend to households and businesses. The Board integrates the stress test with its non-stress capital requirements through the stress capital buffer into one forward-looking and risk-sensitive capital framework.

For more information about stress tests, see [section 4](#), "Promoting Financial System Stability," on page 46 and visit the Board's website at <https://www.federalreserve.gov/supervisionreg/dfa-stress-tests.htm>.

Figure 5.7. Federal Reserve regulations by topic

The Federal Reserve maintains and ensures compliance with the following regulations, which implement federal banking laws and govern the operations of regulated institutions.

Regulation (by letter and name)		Description
Banks and banking		
F	Limitations on Interbank Liabilities	Prescribes standards to limit the risks that the failure of one depository institution would pose to another
H	Membership of State Banking Institutions in the Federal Reserve System	Defines the requirements for membership of state-chartered banks in the Federal Reserve System and sets out the rules member banks must follow in the areas of investments and loans, securities-related activities, capital adequacy, real estate lending and appraisal standards, bank security procedures, suspicious-activity reports, Bank Secrecy Act compliance, and ownership or control of financial subsidiaries
I	Issue and Cancellation of Federal Reserve Bank Capital Stock	Sets out stock-subscription requirements for all banks joining the Federal Reserve System
K	International Banking Operations	Governs the international banking operations of U.S. banking organizations and the operations of foreign banks in the United States
L	Management Official Interlocks	Generally prohibits a management official from serving two nonaffiliated depository institutions, depository institution holding companies, or any combination thereof, in situations where the management interlock would likely have an anticompetitive effect
O	Loans to Executive Officers, Directors, and Principal Shareholders of Member Banks	Restricts credit that a member bank may extend to its executive officers, directors, and principal shareholders and their related interests
Q	Capital Adequacy of Bank Holding Companies, Savings and Loan Holding Companies, and State Member Banks	Establishes minimum capital requirements and overall capital adequacy standards for bank holding companies, savings and loan holding companies, and state member banks
R	Exceptions for Banks from the Definition of Broker in the Securities Exchange Act of 1934	Defines the scope of securities activities that banks may conduct without registering with the Securities Exchange Commission as a securities broker and implements the most important exceptions from the definition of the term broker for banks
S	Reimbursement for Providing Financial Records; Recordkeeping Requirements for Certain Financial Records	Establishes rates and conditions for reimbursement to financial institutions for providing customer records to a government authority and prescribes recordkeeping and reporting requirements for insured depository institutions making domestic wire transfers and for insured depository institutions and nonbank financial institutions making international wire transfers
W	Transactions Between Member Banks and Their Affiliates	Implements sections 23A and 23B of the Federal Reserve Act, which establish certain restrictions on and requirements for transactions between a member bank and its affiliates
KK	Swaps Margin and Swaps Push-Out	Establishes margin and capital requirements for covered swap entities and implements the prohibition against federal assistance to swap entities
NN	Retail Foreign Exchange Transactions	Sets standards for banking organizations regulated by the Federal Reserve that engage in certain types of foreign exchange transactions with retail consumers
VV	Proprietary Trading and Certain Interests in and Relationships with Covered Funds	Establishes prohibitions and restrictions on proprietary trading and investments in or relationships with covered funds by certain banking entities

(continued on next page)

Figure 5.7. Federal Reserve regulations by topic (continued)

Regulation (by letter and name)		Description
Holding companies and nonbank financial companies		
Y	Bank Holding Companies and Change in Bank Control	Regulates the acquisition of control of banks and bank holding companies by companies and individuals, defines and regulates the nonbanking activities in which bank holding companies (including financial holding companies) and foreign banking organizations with U.S. operations may engage, and establishes capital planning requirements for large bank holding companies
LL	Savings and Loan Holding Companies	Regulates the acquisition of control of savings associations, defines and regulates the activities of savings and loan holding companies, sets forth procedures under which directors and executive officers may be appointed or employed, and establishes capital planning requirements for large savings and loan holding companies
MM	Mutual Holding Companies	Regulates the reorganization of mutual savings associations to mutual holding companies and the creation of subsidiary holding companies of mutual holding companies, defines and regulates the operations of mutual holding companies and their subsidiary holding companies, and sets forth procedures for securing approval for these transactions
OO	Securities Holding Companies	Outlines the procedures and requirements for securities holding companies to elect to be supervised by the Federal Reserve
QQ	Resolution Plans	Requires large, systemically significant bank holding companies and nonbank financial companies to submit annual resolution plans
RR	Credit Risk Retention	Requires sponsors of securitization transactions to retain risk in those transactions
TT	Supervision and Regulation Assessments of Fees	Establishes an annual assessment of fees on certain bank holding companies, savings and loan holding companies, and nonbank financial companies supervised by the Federal Reserve
WW	Liquidity Risk Measurement, Standards, and Monitoring	Establishes a minimum liquidity standard and stable funding standard for certain Board-regulated institutions on a consolidated basis
XX	Concentration Limits	Establishes a financial sector concentration limit that generally prohibits a financial company from merging or consolidating with, or acquiring, another company if the resulting company's liabilities would exceed 10 percent of the aggregated liabilities of all financial companies
YY	Enhanced Prudential Standards	Implements the enhanced prudential standards mandated by the Dodd-Frank Wall Street Reform and Consumer Protection Act for large bank holding companies
Federal Reserve Credit		
A	Extensions of Credit by Federal Reserve Banks	Governs borrowing by depository institutions and others at the Federal Reserve discount window
Monetary policy and reserve requirements		
D	Reserve Requirements of Depository Institutions	Sets uniform requirements for all depository institutions to maintain reserves either with their Federal Reserve Bank or as cash in their vaults
Securities credit transactions		
T	Credit by Brokers and Dealers	Governs extension of credit by securities brokers and dealers, including all members of national securities exchanges (see also Regulations U and X)
U	Credit by Banks and Persons Other Than Brokers or Dealers for the Purpose of Purchasing or Carrying Margin Stock	Governs extension of credit by banks or persons other than brokers or dealers to finance the purchase or the carrying of margin securities (see also Regulations T and X)
X	Borrowers of Securities Credit	Applies the provisions of Regulations T and U to borrowers who are subject to U.S. laws and who obtain credit within or outside the United States for the purpose of purchasing securities
<p>Note: For a list of consumer and community affairs-related regulations, see figure 7.2, “Federal consumer financial protection laws and regulations applicable to banks,” on page 116. For a list of regulations governing the U.S. payment system, see figure 6.11, “Federal Reserve regulations governing the payment system,” on page 109. To view the full text of these and other Federal Reserve regulations, visit https://www.ecfr.gov/cgi-bin/ECFR?page=browse and select “Title 12” of the Code of Federal Regulations.</p>		

Liquidity Standards

While adequate capital is essential to the safety and soundness of financial institutions and the financial system as a whole, adequate liquidity is also vitally important. Capital adequacy and li-

How do capital and liquidity differ?

Capital acts as a financial cushion to absorb unexpected losses and generally is the difference between a firm's assets and its liabilities. Liquidity is a measure of the ability and ease with which a firm's assets can be converted to cash. To remain viable, a financial institution must have enough liquid assets to meet its near-term obligations, such as withdrawals by depositors and short-term debt obligations that are coming due.

quidity are interdependent, particularly in times of stress. While capital serves as a cushion against possible losses, liquidity is the ability to meet obligations as they come due.

The Federal Reserve has established heightened liquidity requirements for large BHCs, as well as foreign banking organizations with significant U.S. operations. These standards require these institutions to maintain a mini-

mum liquidity buffer based on an institution's internal 30-day liquidity stress test results. The standards also establish specific related responsibilities for boards of directors and risk committees, require firms to establish specific internal quantitative limits to manage liquidity risk, and establish specific requirements for a firm to monitor its liquidity risk.

The federal banking agencies established a standardized minimum liquidity coverage ratio, or LCR, for large and internationally active firms. The LCR requires large firms with more significant risk profiles that meet certain criteria to hold high-quality, liquid assets that can be converted easily and quickly into cash. In addition, the federal banking agencies established a net stable funding ratio, or NSFR, which requires large banks to maintain a minimum level of stable funding over a one-year period, relative to each institution's assets, derivatives, and commitments. The aim of the NSFR requirement is to support the ability of banks to lend to households and businesses in both normal and adverse economic conditions by reducing liquidity risk and enhancing financial stability.

Supervisory Policy Statements and Guidance

Besides issuing regulations, the Federal Reserve issues policy statements and guidance for examiners and financial institutions in the form of public supervision and regulation (or SR) letters.

Importantly, supervisory statements and guidance do not have the force and effect of law. Rather, they outline supervisory expectations or principles related to a specific law or regulation or to general safety and soundness. Statements and guidance articulate the agencies' general views regarding appropriate practices for a given subject area, and provide insight to industry and supervisory staff in a transparent way that helps to ensure consistency in the supervisory approach. In some situations, supervisors may refer to supervisory guidance in communications to regulated institutions to help explain supervisory findings and highlight practices to consider when institutions address issues.

The Federal Reserve often works closely with other supervisors in crafting these policy statements and guidance. For example, it participates in supervisory and regulatory forums and provides support for the work of the FFIEC. In addition, the Federal Reserve and other U.S. supervisors participate in international forums such as the Basel Committee on Banking Supervision (BCBS) and the Financial Stability Board to discuss a range of regulatory and supervisory topics and coordinate approaches, where possible.

To see specific supervision and regulation letters, visit the Board's website, <https://www.federalreserve.gov/supervisionreg/srletters/srletters.htm>.

Oversight of the Banking System Structure

The Federal Reserve administers several federal statutes that govern the formation, acquisition, and mergers of BHCs, state member banks, SLHCs, and foreign banking organizations.

Under these statutes, the Federal Reserve has authority to approve or deny a variety of proposals that directly or indirectly affect the structure of the U.S. banking system at the local, regional, and national levels; the international operations of domestic banking organizations; or the U.S. banking operations of foreign banks.

Financial disclosures by state member banks

State member banks that issue securities registered under the Securities Exchange Act of 1934 must disclose certain information of interest to investors, including annual and quarterly financial reports and proxy statements. By statute, the Federal Reserve administers these requirements and has adopted financial disclosure regulations for state member banks that are substantially similar to the Securities and Exchange Commission's regulations for other public companies.

Specifically, the Federal Reserve administers several federal statutes that apply to BHCs, FHCs, state member banks, and foreign banking organizations, including the Bank Holding Company Act, the Bank Merger Act, the Change in Bank Control Act of 1978 (CIBCA), the Federal Reserve Act, and the IBA. As a result of the Dodd-Frank Act, the Federal Reserve also administers section 10 of the Home Owners' Loan Act that applies to SLHCs, and administers the CIBCA with respect to SLHCs.

Promotion of Market Discipline: Public Disclosure and Accounting Policy Requirements

Public disclosure helps market observers and participants assess the strength of individual financial institutions, and the Federal Reserve's role in this regard is a critical element in promoting market discipline. Market discipline, likewise, is an important complement to supervision.

Improved safety and soundness is often realized by heightened market discipline achieved through improved financial reporting and disclosure requirements. Such requirements can serve both institution-specific and system-specific purposes.

Market discipline can help to restrain imprudent risk-taking by limiting funding of institutions perceived to be relatively risky, and in this way can complement the efforts of supervisors.

Accordingly, the Federal Reserve plays a significant role in promoting sound accounting policies and meaningful public disclosure by financial institutions. Through its supervision and regulation functions, the Federal Reserve seeks to strengthen the accounting, audit, and control standards related to financial institutions.

The Basel Accords: Global Prudential Standards for Banks

Because of the interconnectedness of the global banking system, the United States participates in the BCBS, the primary global standard-setter for the prudential regulation of banks. The Basel Committee's mandate is to strengthen the regulation, supervision, and practices of banks worldwide for the purpose of enhancing global financial stability.

Members of the Basel Committee work together to formulate broad supervisory standards and guidelines and to recommend best practices to the committee's member countries. Basel Committee members strive to ensure that their supervised financial institutions are held to high, consistent standards and are competing on a level playing field. Individual national authorities are expected to take steps to implement these standards in their respective jurisdictions, as appropriate (figure 5.8). While the standards from international organizations like the BCBS do not go into force automatically in the United States, the Federal Reserve and the other agencies have sought to adopt regulations for internationally active U.S. financial institutions that are broadly consistent with the Basel standards, so that minimum standards exist across the global financial system.

Figure 5.8. International evolutions: The Basel Capital Accord

With other federal banking agencies, the Federal Reserve drafts and finalizes rules that are consistent with the capital adequacy standards set by the Basel Committee. Since 1988, there have been three iterations of the Basel Capital Accords; each iteration is phased in over a multiyear period.

Basel I	Basel II	Basel III
1988	2004	2009–11
<ul style="list-style-type: none"> Increased capital requirements for internationally active banking organizations. Reduced international competitive inequities. Increased comparability of institutions' capital positions. Introduced measures for market risk for institutions with trading activities of \$1 billion or more. 	<p>Building on Basel I, Basel II introduced a three-pillar framework for assessing capital adequacy:</p> <ul style="list-style-type: none"> Pillar 1: Minimum regulatory capital requirements more closely align banking organizations' capital requirements with their underlying risks, including operational risk. Pillar 2: Supervisory oversight requires supervisors to evaluate banking organizations' capital adequacy and to encourage better risk-management techniques. Pillar 3: Market discipline calls for enhanced public disclosure of banking organizations' risk exposures. 	<p>Building on Basel II, and in the wake of the 2007–09 financial crisis, Basel III included measures to</p> <ul style="list-style-type: none"> improve the quality of regulatory capital to include instruments that are fully able to absorb unexpected losses, with a particular focus on common equity; increase the minimum quantity of capital that banking organizations are required to maintain as a proportion of their risk-weighted assets and provide incentives for banking organizations to conserve capital; and require global systemically important U.S. and foreign banks to maintain additional capital based on measures of their systemic importance.

6

Fostering Payment and Settlement System Safety and Efficiency

The Federal Reserve works to promote a safe, efficient, and accessible system for U.S. dollar transactions.

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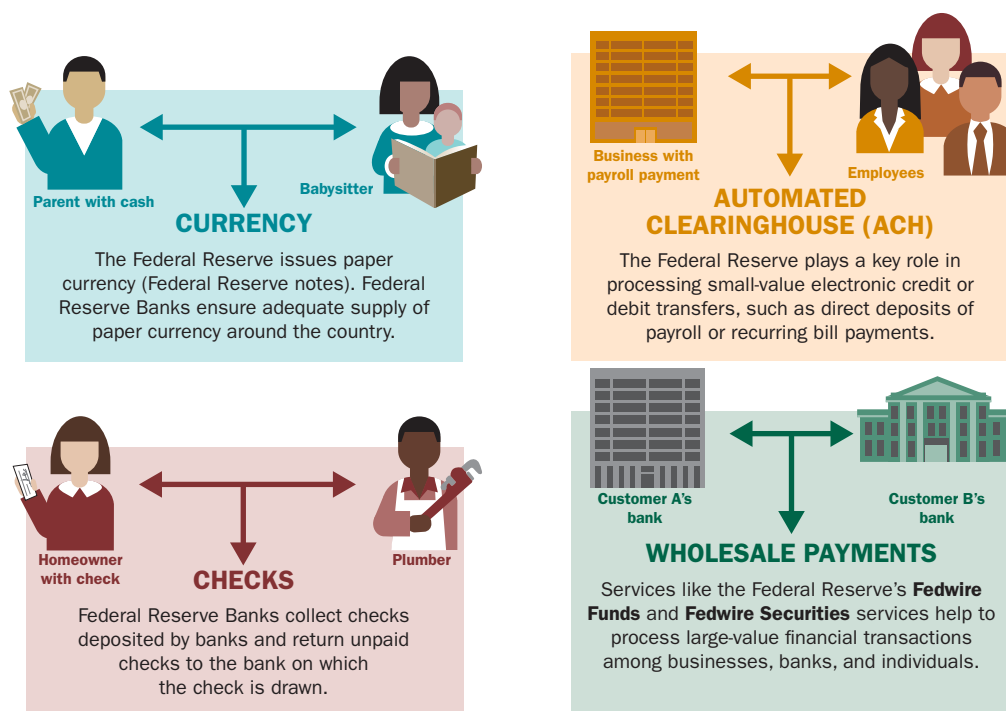
An efficient, effective, and safe U.S. and global payment and settlement system is vital to the U.S. economy, and the Federal Reserve plays an important role in advancing those objectives.

The U.S. dollar payment and settlement system is composed of payment instruments, systems, and institutions that have changed over time. The Federal Reserve provides currency and operates some elements of this system.

This system facilitates financial transactions, purchases of goods and services, and the attendant movement of money at all levels of the U.S. economy—on behalf of individuals and institutions, buyers and sellers, consumers and businesses, investors and securities issuers—and supports interactions between the U.S. economy and others around the world. The importance of the payment system in our daily lives makes its safe and proper functioning essential to the health of the U.S. financial system and overall economy.

Figure 6.1. The Federal Reserve's role in everyday transactions

Whether you're paying your babysitter, shopping for groceries, or getting your paycheck, you're operating within the payment system. The Federal Reserve plays an important role in maintaining that system's integrity.



Overview of Key Federal Reserve Payment System Functions

The Federal Reserve performs several key functions with the respect to the U.S. payment system. These functions help keep cash, check, and electronic transactions moving reliably through the U.S. economy on behalf of consumers, businesses, and others participating in the economy. They include

- providing services to depository institutions and the U.S. federal government,
- regulating certain aspects of the payment system and supervising certain financial market utilities,
- providing intraday liquidity to payment system participants, and
- analyzing the system to help identify and implement improvements.

All these functions underpin U.S. financial markets and private-sector clearing, payment, and settlement arrangements; support the implementation of monetary policy; and contribute to the overall stability of the U.S. financial system and economy.

The Federal Reserve Board of Governors (Board) in Washington, D.C., and the 12 Federal Reserve Banks (Reserve Banks) located around the nation have distinct but complementary responsibilities with regard to the payment system.

In general, the Board is responsible for developing regulations and supervisory policies for elements of the payment system that fall within the Federal Reserve's jurisdiction. The Reserve Banks help supervise entities under the Federal Reserve's jurisdiction pursuant to these regulations and policies.

The Reserve Banks take the lead in providing accounts and payment services to depository institutions, the federal government, and certain other entities (such as government-sponsored enterprises and international organizations), subject to oversight by the Board. The Reserve Banks also provide—subject to Board policies—intraday and overnight credit. Finally, both the Board and the Reserve Banks engage in payment system research and act as catalysts to improve the safety and efficiency of the payment system.

Providing Services to Banks and the Federal Government

The 12 Reserve Banks and their various branches provide a range of payment and settlement services to the banking industry and the federal government. The Reserve Banks

- maintain accounts for depository institutions,
- transfer funds electronically,

Box 6.1. Major Events in the History of the Federal Reserve's Role in the U.S. Payment System

The Federal Reserve System was created by Congress to eliminate the severe financial crises that had periodically swept the nation by the early 1900s, particularly of the sort that occurred in 1907.

- 1907** Many banks and clearinghouses refuse to clear checks drawn on certain other banks, leading to the failure of otherwise solvent banks.
- 1913** Congress creates the Federal Reserve System, giving it the authority to establish a nationwide check-clearing system to eliminate system inefficiencies and inequities.
- 1918** The Federal Reserve Banks establish Fedwire, the world's first wire transfer system.
- 1974** The Federal Reserve Banks begin operating their automated clearinghouse service.
- 1980** The Monetary Control Act reaffirms the Federal Reserve's role in providing payment services.
- 2003** The Check Clearing for the 21st Century Act enables the transformation of the check-collection system from a paper-based to a virtually all-electronic system. The Board drafted this law, collaborating with various payment system stakeholders, and the Federal Reserve Banks provided services to accelerate this transformation.
- 2010** The Dodd-Frank Wall Street Reform and Consumer Protection Act emphasizes the Federal Reserve's role in promoting financial stability and mitigating systemic risk in the financial system and expands its supervision of systemically important financial market utilities and payment, clearing, and settlement activities.

- collect checks,
- distribute and receive currency and coin, and
- settle payments and eligible securities transactions by debiting and crediting the appropriate accounts at the Reserve Banks.

The Reserve Banks also act as fiscal agents of the U.S. government and certain other entities. In other words, they act as the “government’s bank” and maintain the operating cash account of the U.S. Department of the Treasury; process payments to and from the Treasury’s Federal Reserve account; and issue, transfer, and redeem U.S. government securities.

The Federal Reserve has provided payment services to the banking industry since shortly after the Reserve Banks were established in 1914. At the time, these services were for the most part (1) available only to banks that were members of the Federal Reserve System and (2) provided without explicit charge.

Monetary Control Act of 1980

Congress reaffirmed and expanded the Federal Reserve’s role as a service provider with the enactment of the Monetary Control Act of 1980 (MCA), which gave all depository institutions access to

the same pricing for the Federal Reserve's payment services and required the Federal Reserve to price specific types of services to recover fully the costs of providing these services over the long run.

The MCA also encourages competition between the Reserve Banks and private-sector providers of payment services by requiring the Reserve Banks to recover not only their actual costs of providing

Federal Reserve Bank service fees

Under the Monetary Control Act and the Board's Principles for Pricing Federal Reserve Bank Services, the Board is required to set fees for Reserve Bank services to recover the actual and imputed costs of providing these services to the banking industry. The services include check clearing and collection, wire transfer of funds, automated clearinghouse, net settlement, securities services, and new services the Reserve Banks may offer. For the most up-to-date schedule of fees, go to <https://www.frb services.org/resources/fees/index.html>.

priced services, but also the costs that would be incurred and profits that would be earned if a private firm had provided these services.

The Reserve Banks offer certain payment services in competition with the private sector. The Board has adopted clear policies to avoid conflicts of interest within Reserve Banks that could arise from providing priced payment services and carrying out monetary, supervisory, and lending responsibilities.

The U.S. Payment System Today and Reserve Bank Services

The U.S. payment system has evolved significantly since the Federal Reserve was established in 1913. At that time, cash and checks were the predominant means of payment. Since then, and especially since the 1990s, the U.S. payment system has shifted away from the use of checks and toward the use of electronic payments.

In 2018, 162 billion noncash transactions valued at approximately \$1,252 trillion passed through the U.S. payment system. Measured by annual aggregate value, wire transfers, automated clearinghouse (ACH) payments, and checks were the leading payment methods in the United States. Measured by annual aggregate number, however, debit cards, credit cards, and ACH payments were the leading payment methods (figure 6.2). Today's prominence of electronic payments reflects a long-term shift away from the use of checks, particularly in transactions between consumers and businesses.

The Federal Reserve's noncash payment and settlement services are typically categorized as retail or wholesale payment services. The check and ACH services are generally called retail payment services, and the Fedwire Funds Service, the Fedwire Securities Service, and the National Settlement Service (NSS) are generally called wholesale services. These terms reflect the lower typical value of the retail services. However, lower-value Fedwire transactions and higher-value check or ACH transactions are also used by individuals and businesses, respectively, to meet their payment needs.

In addition to providing noncash payment services, the Federal Reserve ensures that the cash (currency and coin) in circulation is sufficient to meet the public's demand and that depository institutions have ready access to Reserve Bank cash services.

Retail Payment Services

Retail payments tend to be lower-value payments—such as check, ACH, and debit and credit card payments—used more frequently in everyday transactions. The Federal Reserve plays a key role in processing retail payment transactions through its check and ACH services.

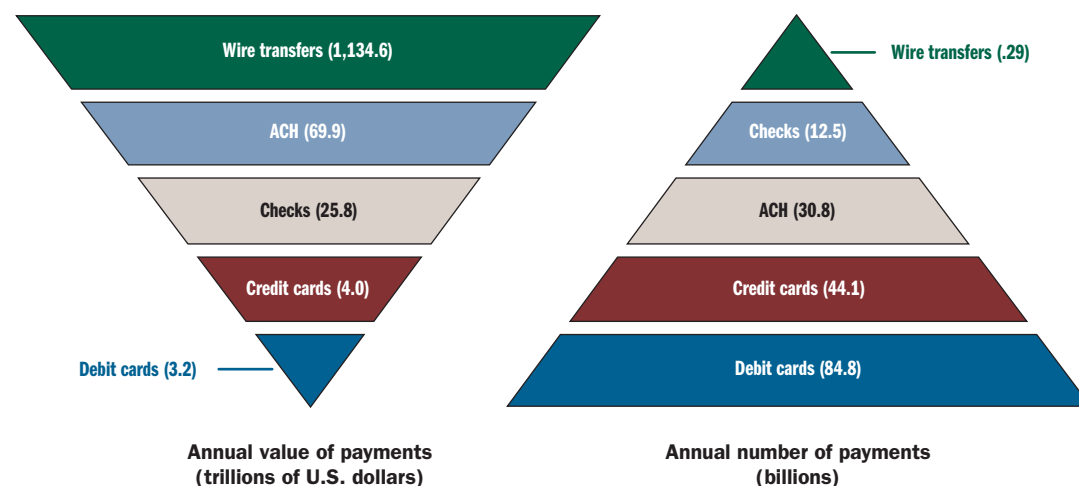
The U.S. payment system has evolved greatly to better serve all participants in the economy. Innovations and reforms have ushered in greater convenience in many ways, notably the ways individuals and institutions conduct transactions between and among themselves.

Check Service and Its Origins

Perhaps no aspect of the payment system illustrates its evolution better than the nation's check-clearing system. The Federal Reserve plays a key role in this system, serving as a major provider of paper and electronic services to depository institutions. In 2019, it collected more than 4 billion checks, worth more than \$8 trillion.

In the early 1900s—before the creation of the Federal Reserve System—the nation's check system was paper-based and used primarily for transactions between banks (interbank transactions)

Figure 6.2. Total noncash payments (Federal Reserve and private sector), 2019



Note: All figures include on-us transactions (payments in which the acquirer and the issuer are the same institution).

ACH Automated clearinghouse.

Source: Committee on Payments and Market Infrastructures 2019 Red Book Statistics, which is available on the Bank for International Settlements website at <https://stats.bis.org/statx/toc/CPMI.html>.

and between businesses. The check-collection system at that time was quite inefficient; for example, banks commonly routed checks circuitously to avoid presentment fees, which are fees that banks receiving checks imposed on banks presenting checks for payment. Such routing resulted

What is the automated clearinghouse (ACH)?

The ACH is a nationwide electronic network, developed jointly by the private sector and the Federal Reserve, for the exchange of electronic files of payment instructions among financial institutions, typically on behalf of customers. ACH transactions are payment instructions to either debit or credit an originator's deposit account at an originating depository institution. The ACH was developed in the early 1970s as a more efficient alternative to paper checks.

in extensive delays and inefficiencies in the check-collection system.

When the Reserve Banks were established in 1914, Congress expected them to improve the efficiency of the check-collection system, which would benefit the depositors of checks by speeding up the process and eliminating the practice of paying checks at less than their

full face value. This practice of not remitting payment for checks at face value was called “nonpar banking.” In 1917, Congress amended the Federal Reserve Act to prohibit banks from charging the Reserve Banks presentment fees and to authorize nonmember banks as well as member banks to collect checks through the Federal Reserve System.

Since then, the Federal Reserve has worked with the private sector to improve the efficiency and cost-effectiveness of the check-collection system (figure 6.3). In its early years, the Federal Reserve took a number of steps to reduce nonpar banking. The prevalence of nonpar banking was substantially reduced by the 1920s but did not totally disappear in this country until 1980.

In the 1970s, check volume increased significantly, so the Federal Reserve established additional check-processing offices, called regional check-processing centers, in new locations throughout the country to improve further the efficiency of check clearing. In the 1980s, the Reserve Banks began to offer expanded return check services based on the new expeditious return rules adopted

What are “clearing” and “settlement”?

Clearing is the transfer and confirmation of information between the payer's financial institution and the payee's financial institution. **Settlement** is the actual transfer of funds between the payer's financial institution and the payee's financial institution.

by the Board pursuant to the Expedited Funds Availability Act. In expanding their return check services, the Reserve Banks played a major role in speeding the return of unpaid checks to banks of first deposit—banks in which checks are initially deposited for collection.

Electronic Check Processing

The Federal Reserve served as a catalyst for the transition of the U.S. economy to today's electronic check-processing arrangements (including check truncation). As a general matter, the faster and more resilient electronic check-clearing and check-return methods have markedly improved the efficiency of the nation's payment system while at the same time proving less costly and less error prone.

In the 1990s, the Reserve Banks began offering electronic check presentment services to banks. By the early 2000s, about 20 to 25 percent of the checks the Reserve Banks handled were delivered electronically to paying banks through these services. Overall, most banks continued to simply demand that original checks be presented for payment. As a result, the nation's check-clearing system remained dependent on paper and vulnerable to disruptions in transportation networks.

What is check truncation?

Check truncation is the practice of converting a paper check to electronic information, which is forwarded to the bank on which it was written.

In 2003, Congress passed the Check Clearing for the 21st Century Act (Check 21 Act), which facilitated electronic check processing by creating a new type of paper document, called a substitute check, which is the legal equivalent of the original check. The Check 21 Act enables banks to remove original paper checks from the check-collection system (called check truncation) and send digital images of checks electronically to banks with which they have agreements to do so, and send substitute checks to banks with which they do not. By creating widespread opportunities for

Figure 6.3. What are all those numbers on your checks?

Public- and private-sector coordination and cooperation have led to dramatic improvements in the check-collection process, resulting in more efficient payment and settlement for individuals and institutions.

The diagram shows a check form with the following fields and labels:

- Your Name**: 1234 Your Street, Anywhere, US 10112
- Date**: _____
- PAY TO THE ORDER OF**: _____
- \$**: _____
- DOLLARS**: _____
- Your Bank**: 5678 Bank Street, Anywhere, US 10112
- MEMO**: _____
- MICR line**: 123456789 1001001234 0790

Bank routing number

The Federal Reserve and the banking industry developed the bank routing number system to facilitate the sorting, bundling, and shipment of paper checks. The routing number identifies the bank on which a check is drawn.

Account number

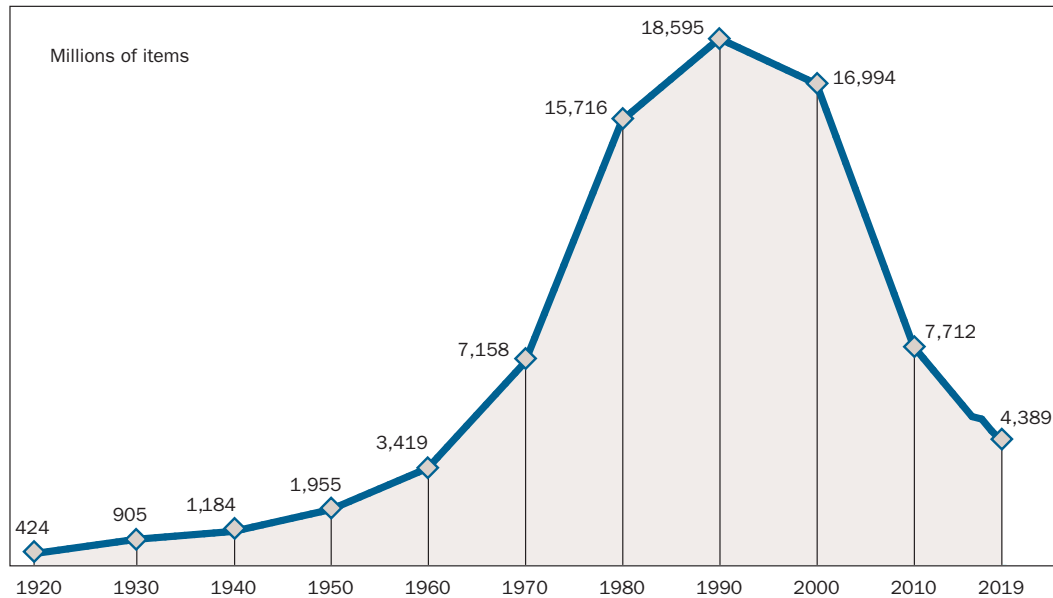
Individual account numbers are assigned to each account.

MICR

In the 1950s, the magnetic ink character (MICR) system for encoding pertinent data on checks was developed so that the data could be read electronically. The MICR system contributed significantly to the automation of check processing. In the 1960s, the Federal Reserve Banks began to require MICR-encoding of all checks deposited with them.

Figure 6.4. Checks collected by the Federal Reserve, selected years, 1920–2019

The number of checks written has been declining as individuals and institutions rely increasingly on electronic means to execute transactions.



For more information about the number and value of checks collected, visit the Payment Systems section of the Federal Reserve Board's website, <https://www.federalreserve.gov/paymentsystems.htm>.

the truncation of checks and associated cost savings, the act has resulted in the nation's inter-bank check-collection processes becoming almost entirely electronic.

The banking system and the Federal Reserve itself have been able to almost completely eliminate the costly dedicated air and ground transportation networks that were once used to deliver checks around the country on a daily basis. Further, banks' transition to electronic check processing has enabled them to offer their customers new products and improved service.

Check volume in the United States peaked in the mid-1990s (figure 6.4), when about 50 billion checks were written annually. Since that time, check volume has declined significantly as electronic forms of payment, such as debit cards, credit cards, and ACH payments, have become increasingly popular. In response to the growth in electronic check processing and the reduced number of checks being written, the Reserve Banks substantially reduced their costs and physical infrastructure associated with processing checks. The number of Reserve Bank offices processing paper checks declined from 45 in 2003 to just 1 beginning in 2010.

Automated Clearinghouse Service

The ACH is a nationwide electronic payment system, developed jointly by the private sector and the Federal Reserve in the early 1970s as a more efficient alternative to checks. At that time, it seemed that the increasing volume of paper checks used by businesses and consumers would eventually exceed the ability of the existing equipment to process and sort the checks efficiently.

How ACH Works

The ACH has grown into a major nationwide electronic payment mechanism that processes files of electronic funds transfers (payments). In general, ACH transactions are either credit or debit transfers (figure 6.5). In an ACH credit transfer, an individual, corporation, or other entity (originator) “pushes” or sends funds from its account to that of the receiver. In a debit transfer, the receiver authorizes an originator to “pull” funds from the receiver’s account.

The Reserve Banks and the Electronic Payments Network, a private organization, are currently the two national ACH operators. As an ACH operator, the Reserve Banks receive files of payments from originating institutions, edit and sort the payments, deliver the payments to receiving institutions, and settle the payments by crediting and debiting the institutions’ accounts. Unlike Fedwire transfers, which are processed and settled immediately, ACH transactions are value-dated—that is, the originator of the ACH transaction includes the settlement date in the payment instructions when they originate the transaction.

In the past, the United States had several regional ACH systems, but over time, the industry consolidated to the current structure of two national ACH systems. In 2019, the Federal Reserve processed more than 15.5 billion commercial ACH payments, worth approximately \$28.1 trillion, and more than 1.7 billion government ACH payments, worth approximately \$5.8 trillion.

The ACH was originally designed to help automate recurring payments, such as government benefit payments, payroll payments, and consumer mortgage and utility payments. Much of the recent

Figure 6.5. Examples of automated clearinghouse transfers

Automated clearinghouse (ACH) transfers can be categorized as either “credit transfers” or “debit transfers” based on the type of instruction sent by the originator of the transfer.

Credit transfer	Debit transfer
Payroll direct deposits	Direct debits of recurring consumer bills, such as mortgages, utility payments, and insurance premiums
Government benefit payments, such as Social Security benefits	Checks converted by merchants to ACH debits
Corporate payments to contractors and vendors	One-time payments authorized over the internet or telephone

growth in ACH payments has resulted from one-time transactions such as consumer payments initiated over the internet or telephone.

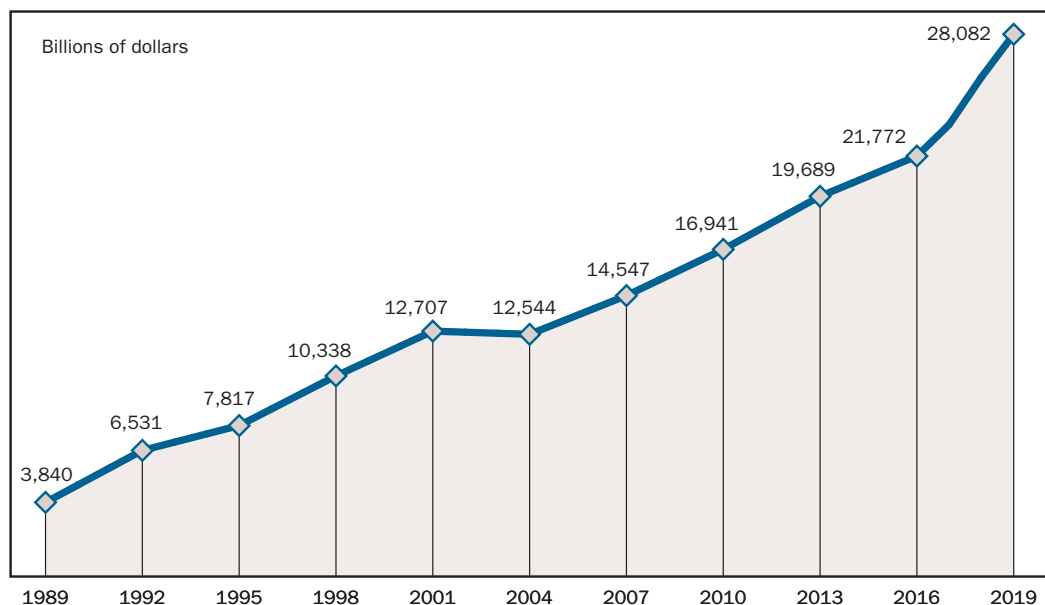
The Federal Reserve's Role in ACH Development

The Reserve Banks became an ACH operator in large part because of the Reserve Banks' role as fiscal agents of the Treasury and because of the synergies between the ACH and the Federal Reserve's then-existing check service. The Treasury, earlier than most businesses, embraced the use of the ACH as a potentially more efficient way to make many of the government's payments, particularly payrolls for military and civilian workers and benefit payments such as Social Security. (Until the mid-1980s, most ACH volume was originated by the federal government.) The combination of commercial and government ACH payments created economies of scale earlier than might otherwise have been the case, allowing the ACH to become a broadly used national service (figure 6.6).

Initially, the ACH system relied on magnetic tapes and paper listings to exchange ACH files. Their use required physical transport of tapes between the participants in the ACH system, which made use of the then-existing Reserve Bank national check-transportation infrastructure (e.g., planes and trucks). In the mid-1990s, the Federal Reserve mandated that all institutions' ACH payment files be deposited electronically and all output files be delivered electronically. That is, all institu-

Figure 6.6. Commercial automated clearinghouse transactions processed by the Federal Reserve, 1989–2019

In less than 25 years, the value of commercial automated clearinghouse transactions processed by the Federal Reserve has more than quadrupled.



Source: Commercial automated clearinghouse transactions processed by the Federal Reserve—annual data (available in the Payment Systems section of the Federal Reserve Board's website, <https://www.federalreserve.gov/paymentsystems.htm>).

tions dealing with the Federal Reserve directly were required to have an electronic connection to participate in the ACH.

To provide a more cost-effective mechanism for cross-border payments, the Reserve Banks launched their first commercial international ACH service with Canada in 2001. The Reserve Banks have since established “FedGlobal” international ACH services to Europe and Latin America.

FedNowSM Service

In August 2019, the Board of Governors announced that the Reserve Banks will develop a new around-the-clock, real-time clearing and settlement service, called the FedNow Service, to support instant payments.

Instant payments allow individuals and businesses to send and receive payments within seconds at any time of the day, on any day of the year, such that the receiver of a payment can use the funds almost instantly. The Federal Reserve believes that instant payments have the potential to become widely used and to yield economic benefits for individuals by providing them with more flexibility to manage their money and make time-sensitive payments. The FedNow Service will support a nationwide infrastructure on which the financial services industry may develop innovative instant payment services for the benefit of all Americans.

The FedNow Service will conduct real-time, payment-by-payment, final settlement of interbank obligations through debits and credits to depository institutions’ balances in accounts at the Reserve Banks. The service will incorporate clearing functionality, allowing depository institutions, in the process of settling each payment, to exchange information needed to make debits and credits to the accounts of their customers. The service is expected to be available in 2023.

Wholesale Payment Services

Wholesale payments—such as those related to large commercial loans and transactions involving real estate, securities, and money markets—tend to be small in number and large in value, and typically support domestic and international commercial and financial activities. The Reserve Banks operate services designed to support these complex, high-value transactions.

Fedwire Funds Service

The Fedwire Funds Service is a real-time gross settlement (RTGS) system through which participants are able to initiate electronic funds transfers that are processed individually in real time as the funds transfer instructions are received by the Reserve Banks. Once processed, Fedwire funds transfers are final and irrevocable.

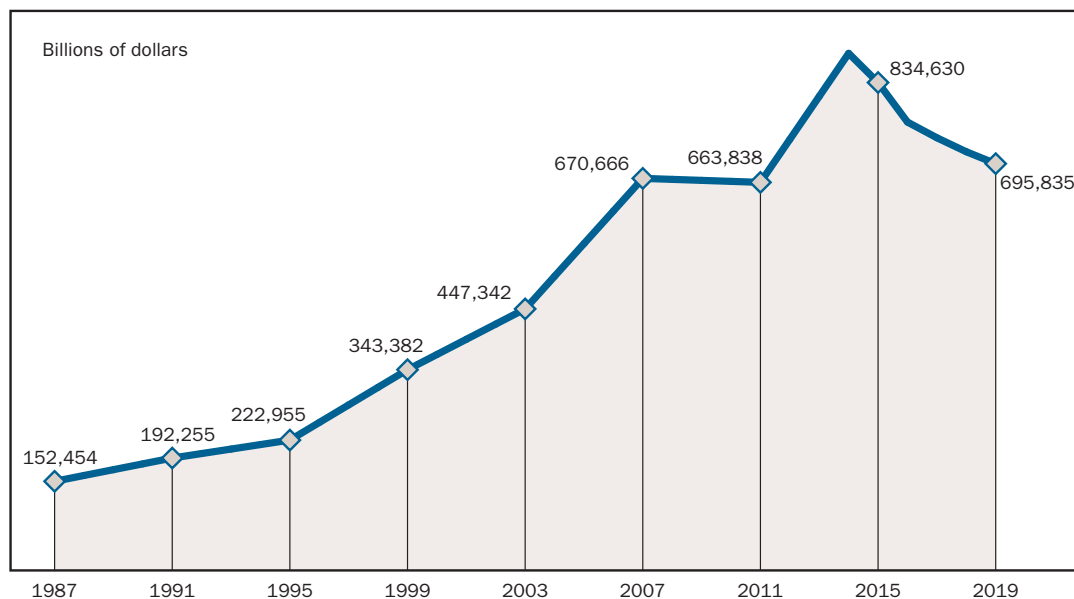
Established in 1918, the Fedwire Funds Service was the world's first RTGS system. It initially used Morse code to communicate payment instructions via telegraph lines. Today, the Fedwire Funds Service relies on secure, sophisticated proprietary data communications and data processing systems to ensure that each transfer is authorized by the sender and not altered while under the control of a Reserve Bank.

Participants—including depository institutions and other eligible financial institutions—use the Fedwire Funds Service to handle large-value, time-critical payments, such as settling interbank purchases and sales of federal funds; purchasing, selling, or financing securities transactions; and disbursing or repaying large loans. Participants also use the Fedwire Funds Service to make smaller-value funds transfers requiring immediate settlement, to make business-to-business remittance payments, and to complete the U.S. dollar leg of international transactions. Fedwire funds transfers are settled individually by transferring balances held at Reserve Banks from the sending bank's account to the receiving bank's account.

As financial markets have become more global in scope, the operating hours of the Fedwire Funds Service have expanded to increase the amount of overlap with the hours of foreign markets. The Fedwire Funds Service now opens at 9:00 p.m. eastern time (ET) on the night before a business

Figure 6.7. Electronic payments processed by the Fedwire Funds Service, selected years, 1987–2019

The Fedwire Funds Service is used by depository institutions and other financial institutions to make large-value, time-critical payments.



For more information about the number and value of transactions processed through the Federal Reserve's Fedwire Funds Service, visit the Payment Systems section of the Federal Reserve Board's website, <https://www.federalreserve.gov/paymentsystems.htm>.

day and closes at 7:00 p.m. ET on the business day. For example, processing on a Monday begins at 9:00 p.m. ET on Sunday and ends at 7:00 p.m. ET on Monday. In 2019, participants used the service to make 167 million transfers worth more than \$695 trillion (figure 6.7).

Fedwire Securities Service

The Fedwire Securities Service is used by depository institutions and others with a Reserve Bank account to hold, maintain, and transfer securities issued by the Treasury and other federal agencies, government-sponsored enterprises, and certain international organizations, such as the World Bank. Participants use the Fedwire Securities Service to issue and redeem securities, to transfer securities to settle secondary market trades, to move collateral used to secure obligations, and to facilitate repurchase agreement (repo) transactions. Securities are kept in the form of electronic records held in custody accounts.

Until the late 1960s, U.S. government securities were only available in paper form. As securities volumes grew, banks experienced paperwork backlogs and errors. To improve market efficiency and reduce risk, between 1965 and 1967, the Treasury began issuing securities in electronic form and the Federal Reserve implemented computer systems to record, service, and transfer them. The Fedwire Securities Service operates Monday to Friday from 8:30 a.m. to 3:30 p.m. ET, though participants can reposition securities held in their accounts until 7:00 p.m. ET. In 2019, participants used the service to initiate more than 19 million securities transfers, worth almost \$350 trillion (figure 6.8).

National Settlement Service

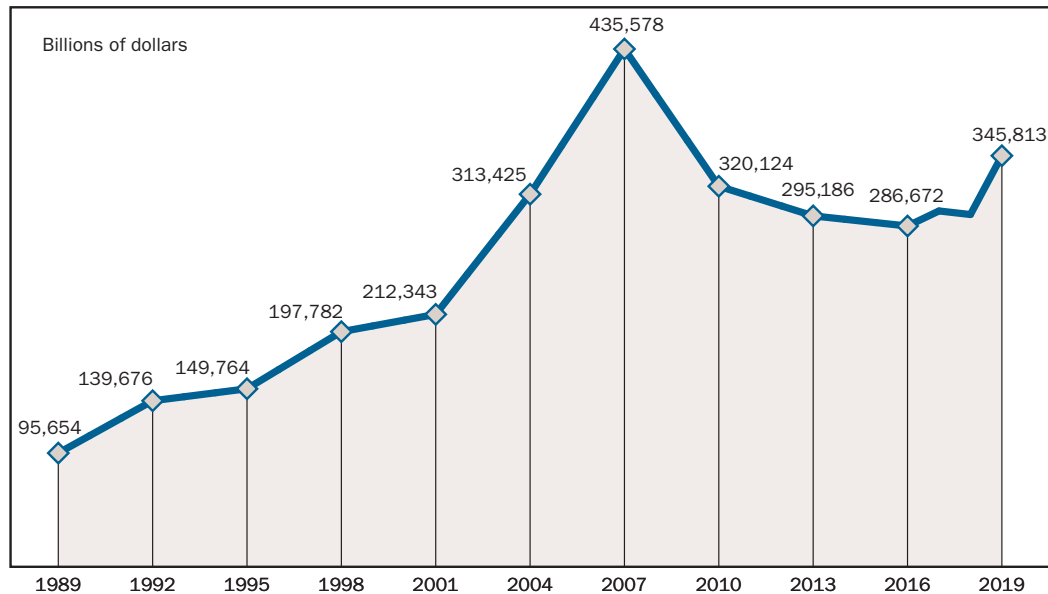
The Federal Reserve's NSS is used by participants in multilateral clearing arrangements to settle transactions on a multilateral basis through designated master accounts held at the Reserve Banks. Approximately 17 NSS arrangements are currently in use by financial market utilities, check clearinghouse associations, and other entities.

Using an automated mechanism, an agent for a multilateral clearing arrangement submits a settlement file to a Reserve Bank. The settlement file contains a list of the debit or credit positions of the settling depository institutions in the arrangement that are to be settled.

The Reserve Bank first processes each debit individually, crediting those funds to a settlement account on its books. Once the debits have been processed, the Reserve Bank transfers funds from the settlement account to the accounts of the participants with credit positions. NSS reduces settlement risk for clearing arrangements because the funds transferred are final and irrevocable when the debits and credits are posted.

Figure 6.8. Securities transfers processed by the Fedwire Securities Service, selected years, 1989–2019

Financial institutions and other parties use this service to hold, maintain, and transfer securities issued by the U.S. Treasury and other federal agencies, government-sponsored enterprises, and certain international organizations, such as the World Bank.



For more information about the number and value of transactions processed through the Federal Reserve's Fedwire Securities Service, visit the Payment Systems section of the Federal Reserve Board's website, <https://www.federalreserve.gov/paymentsystems.htm>.

NSS is open Monday through Friday from 7:30 a.m. to 6:30 p.m. ET. In 2019, the Federal Reserve processed about 9,700 net settlement service files, worth almost \$21 trillion.

Cash Services

The Federal Reserve Board issues the nation's currency in the form of Federal Reserve notes to the Reserve Banks, which, in turn, distribute currency to the public through approximately 8,400 banks, savings and loans, and credit unions. (The remaining depository institutions obtain cash services from correspondent banks rather than directly from a Reserve Bank.) Federal Reserve notes in circulation are liabilities of the Reserve Banks and are collateralized by the assets of the Reserve Banks.

In contrast, coin in circulation is not a liability of the Reserve Banks. The Treasury's United States Mint is the issuing authority for coin. The Reserve Banks buy coin at face value from the U.S. Mint and, in turn, sell it to depository institutions at face value. Coin held by the Reserve Banks is a non-interest-earning asset of the Reserve Banks.

Establishing and Maintaining a Reliable U.S. Currency

Although the issuance of paper money in this country dates back to 1690, the U.S. government did not issue paper currency until 1861, when Congress approved the issuance of demand Treasury notes.

All currency issued by the U.S. government since then remains legal tender. Today, virtually all currency in circulation is in the form of Federal Reserve notes, which were first issued in 1914.

As the issuing authority for Federal Reserve notes, the Board has a wide range of responsibilities related to paper money, from ensuring an adequate supply of currency to protecting and maintaining confidence in the currency. To protect the integrity of Federal Reserve notes, the Board works with the Reserve Banks, the U.S. Department of the Treasury, the Treasury's Bureau of Engraving

Figure 6.9. Design of Federal Reserve notes aims to prevent counterfeiting

The Federal Reserve Board, the Treasury's Bureau of Engraving and Printing, and the U.S. Secret Service primarily redesign U.S. currency to stay ahead of counterfeiting threats and keep counterfeiting levels low.



Security thread.

Hold the note to light to see an embedded thread running vertically to the left of the portrait. The thread is imprinted with the letters USA and the numeral 100 in an alternating pattern and is visible from both sides of the note. The thread glows pink when illuminated by ultraviolet light.

3-D security ribbon.

Tilt the note back and forth while focusing on the blue ribbon. You will see the bells change to 100s as they move. When you tilt the note back and forth, the bells and 100s move side to side. If you tilt it side to side, they move up and down. The ribbon is woven into the paper, not printed on it.

Watermark.

Hold the note to light and look for a faint image of Benjamin Franklin in the blank space to the right of the portrait. The image is visible from both sides of the note.

Color-shifting ink.

Tilt the note to see the numeral 100 in the lower right corner of the front of the note shift from copper to green.

For more information on the security and design of Federal Reserve notes, go to <https://uscurrency.gov>.

and Printing (BEP), and the United States Secret Service to monitor counterfeiting threats for each denomination and to redesign notes to counter these threats ([figure 6.9](#)).

Federal Reserve notes are periodically redesigned to make notes more difficult to counterfeit but still easy to authenticate as genuine. The Board manages a program to educate the public on the security and design features in Federal Reserve notes to help protect and maintain confidence in U.S. currency.

The Reserve Banks also help maintain confidence in our nation's currency by ensuring the quality and integrity of Federal Reserve notes in circulation. The Reserve Banks accept and process deposits of currency from depository institutions and credit their accounts at the Federal Reserve. Using high-speed sorting equipment, the Reserve Banks “piece-count” the deposits and remove worn and soiled currency and suspected counterfeits. The fit currency that remains is packaged and returned to the vault, to be used along with new currency to fill future orders from depository institutions. Notes that are unfit for circulation are destroyed. Suspected counterfeit notes are delivered to the United States Secret Service for analysis and final adjudication.

Each year, the Board determines the number of new Federal Reserve notes that are expected to be needed and submits a print order to the BEP. The order reflects the Board's estimate of the additional amount of currency that the public will demand in the upcoming year and destruction rates of unfit currency. The Board pays the BEP the cost of manufacturing new currency and arranges and pays the cost of transporting the currency from the BEP's facilities to Reserve Bank cash offices.

Demand for currency comes from both domestic and international sources. Domestic demand for currency is largely based on the use of currency for transactions and is influenced primarily by income levels, prices of goods and services, the availability of alternative payment methods, and the opportunity cost of holding currency rather than an interest-bearing asset. In contrast, foreign demand for U.S. currency is influenced primarily by the political and economic uncertainties associated with certain foreign currencies. As of 2019, there were more than \$1.75 trillion worth of Federal Reserve notes in circulation ([figure 6.10](#)), and the Board estimates that between one-half and two-thirds of the value of U.S. currency is held outside the United States.

Coin

The Reserve Banks' role in coin operations is more limited than their role in currency operations. Although the Reserve Banks store some coin in their own vaults, they also contract with armored carriers that operate coin terminals to store, process, and distribute coin on behalf of the Reserve Banks.

As the issuing authority for coins, the U.S. Mint determines annual coin production. The Reserve Banks order coin from the U.S. Mint and pay the U.S. Mint the full face value of the coin, rather than the cost to produce it. The U.S. Mint transports the coin to the Reserve Banks and the Reserve Banks' coin terminal locations.

Fiscal Agency Services: Acting as the U.S. Government Bank

The Reserve Banks provide a range of services to the U.S. government, acting as the government's fiscal agent. These services include financial, account management, and securities services, as well as application development and technology infrastructure support.

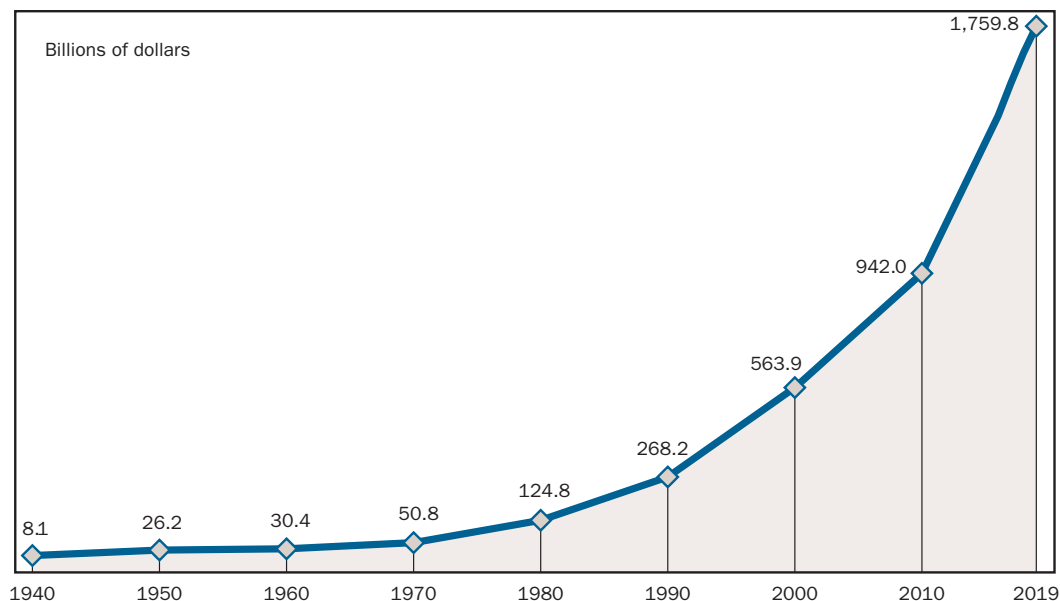
Early History of Fiscal Agency and Depository Services

The provision of fiscal agency and depository services began in 1915 when the Treasury began transferring U.S. government funds on deposit at national banks to its account at Reserve Banks. This action established Reserve Banks as the key intermediaries through which funds are collected and disbursed for the federal government.

In 1917, the Federal Reserve performed the first public debt functions, when Reserve Banks were authorized to receive subscriptions on the First Liberty Loan—bonds issued to help finance the

Figure 6.10. Value of U.S. currency in circulation, selected years, 1940–2019*

The Federal Reserve measures demand for U.S. currency, and the Reserve Banks ensure that depository institutions around the country have ready access to cash.



* Data include Federal Reserve notes and currency no longer issued but exclude coin and denominations larger than the \$100 note.

For more information about the value and volume of currency in circulation and the volume, value, and cost of the new currency print order, visit the Payment Systems section of the Federal Reserve Board's website, <https://www.federalreserve.gov/paymentsystems.htm>.

United States' World War I effort. After World War I, the government's need to borrow compelled the Treasury to seek an operational alternative to its limited network of subtreasuries—field offices that functioned as the government's bank in various regions of the country. The Federal Reserve subsumed these public debt-related activities, and the last subtreasury closed in 1921.

Reserve Bank fiscal agency services continued to grow in response to expanding government funding requirements. For example, the financing efforts associated with World War II increased the scope of Reserve Bank fiscal agency functions to include the sale and redemption of Series E savings bonds beginning in 1941. While initially known as Defense Bonds and War Savings Bonds, Series E bond issuance continued until 1980, with millions of Americans purchasing these bonds.

In the 1960s and 1970s, the Reserve Banks' role as fiscal agents expanded to include services—primarily securities-related services—to other federal agencies, government-sponsored enterprises, and international organizations, either at the Treasury's request or through a separate congressional mandate. As noted earlier, the federal government in the 1970s became an early user of ACH services to expedite the processing of government payments, and the ACH now plays a central role in the government's payments and collections.

Reserve Banks currently provide fiscal agency services to a significant number of federal entities. Expenses associated with providing these services account for approximately 13 percent of the Federal Reserve's total operating costs. The Treasury and other agencies reimburse the Reserve Banks for the cost of providing fiscal agency services.

Collections, Payments, and Account Management

The Reserve Banks accept deposits of fees and non-tax-related payments to the federal government, pay checks drawn on the Treasury's account at the Federal Reserve, and make and receive electronic payments on behalf of the Treasury and government agencies. The Reserve Banks also process U.S. postal money orders and conduct other activities on behalf of certain government agencies.

The Reserve Banks operate multiple systems that support the collection and processing of payments to the government from the public, including Pay.gov, a Treasury program that allows the public to use the internet to authorize and initiate payments to federal agencies. Payments can be made to federal agencies using a U.S.-held bank account (through ACH debit), a credit or debit card, or a digital wallet.

The Reserve Banks work closely with the Treasury and other government agencies to process payments to individuals, businesses, institutions, and government agencies. The Reserve Banks pro-

cess federal payroll payments, Social Security and veterans' benefits, income tax refunds, vendor payments, and other types of payments.

Disbursements from the Treasury's account at the Federal Reserve are processed primarily through ACH payments or Fedwire funds transfers or, to a limited extent, by check. The increased use of electronic payments provides the Treasury opportunities to minimize the costs and inefficiencies associated with the delivery of check payments and ultimately to reduce costs to U.S. taxpayers.

The Reserve Banks maintain the Treasury's operating account, provide accounting and reporting services, monitor collateral pledged to the government, and facilitate the investment of excess balances, as directed by the Treasury.

Treasury Security Auctions and Related Services

As fiscal agents, the Reserve Banks auction marketable Treasury securities and issue, maintain, and redeem savings bonds. In addition, the Reserve Banks provide securities-related services to federal agencies, government-sponsored enterprises, and certain international organizations under separate statutory authority.

Historically, Reserve Banks employed large staffs to process manually paper-based Treasury bills, notes, bonds, and savings bonds until the advent of marketable book-entry securities in the late 1960s.

Book-entry securities—which are electronic records rather than paper certificates—were created primarily to gain efficiencies in the secondary market for Treasury securities. Beginning in 1986, individual investors could also buy and hold marketable book-entry securities in the TreasuryDirect system.

Over the years, the Reserve Banks have adapted and modernized their operations in support of the Treasury's securities programs and worked with the Treasury to respond to the declining volumes of paper-based products. The Reserve Banks work with the banking industry to improve the process used to submit savings bonds for redemption.

Using Technology to Modernize Federal Government Financial Services

In recent years, technological developments—many involving the use of internet technologies—have provided new opportunities for the Reserve Banks to support the Treasury in modernizing federal government financial services, such as collections and payment processes, governmentwide financial reporting, and debt collection.

The Reserve Banks also actively support the Treasury's efforts to increase electronic payments transactions and reduce paper-based transactions, and to re-engineer the government's accounting, reporting, and reconciliation processes. The Reserve Banks have also developed tools to help the Treasury and government agencies verify the accuracy of federal payments before they are made and to assist in the collection of delinquent debt.

Services to Foreign Central Banks and International Organizations

As the central bank of the United States, the Federal Reserve also provides correspondent banking services to foreign central banks and monetary authorities.

The Federal Reserve Bank of New York (FRBNY) provides several types of services to these organizations, including maintaining noninterest-bearing deposit accounts (in U.S. dollars), securities safekeeping accounts, and gold safekeeping. Some foreign official institutions direct a portion of their daily receipts and payments in U.S. dollars through their funds accounts at the Federal Reserve.

If an account contains excess funds, the foreign official institution may request that these funds be invested overnight in repurchase agreements (repos) with the FRBNY. If investments are needed for longer periods, the foreign official institution may provide instructions to the FRBNY to buy securities to be held in safekeeping. Conversely, the foreign institution may provide instructions to sell securities held in safekeeping, with the proceeds deposited in its account.

The FRBNY also provides securities-issuing and paying-agent services to international organizations such as the International Monetary Fund and the World Bank.

Regulating and Supervising the Payment System

For many decades, the Board's authority to regulate the payment system was limited to payments handled by the Reserve Banks. The Board used this authority to regulate check payments collected or returned through the Reserve Banks and to regulate Fedwire funds transfers.

Beginning in the 1970s, Congress directed the Board to implement several consumer protection statutes governing payments, including the Fair Credit Billing Act of 1974, the Electronic Fund Transfer Act of 1978, and the Expedited Funds Availability Act of 1987 (EFAA). The Dodd-Frank Wall Street Reform and Consumer Protection Act (Dodd-Frank Act) transferred the Board's rulemaking authority with respect to most consumer protection laws to the Consumer Financial Protection Bureau (CFPB), but the Board shares rulemaking authority with the CFPB with respect to the funds availability and disclosure requirements of the EFAA.

Figure 6.11. Federal Reserve regulations governing the payment system

The Federal Reserve has adopted the following set of regulations, which implement certain federal laws governing the U.S. payment system and the operations of participating institutions.

Regulation (by letter and name)		Description
J	Collection of Checks and Other Items by Federal Reserve Banks and Funds Transfers Through Fedwire	Governs the collection and return of checks through the Reserve Banks and Fedwire funds transfers
CC	Availability of Funds and Collection of Checks	Governs the availability of funds deposited in transaction accounts and the collection and return of checks
EE	Netting Eligibility for Financial Institutions	Defines financial institutions to be covered by statutory provisions that validate netting contracts, thereby permitting one institution to pay or receive the net, rather than the gross, amount due, even if the other institution is insolvent
GG	Prohibition on Funding of Unlawful Internet Gambling	Requires U.S. financial firms that participate in designated payment systems to establish and implement policies and procedures reasonably designed to prevent payments connected to unlawful internet gambling
HH	Designated Financial Market Utilities	Establishes standards and procedures related to the supervision of certain financial market utilities designated as systemically important
II	Debit Card Interchange Fees and Routing	Establishes standards for debit card interchange fees and prohibits payment card network exclusivity arrangements and routing restrictions for debit card transactions

Note: For a list of regulations governing banks and banking, holding companies and nonbank financial companies, and securities credit transactions, see [section 5](#), “Supervising and Regulating Financial Institutions and Activities,” on page 62. For a list of consumer and community affairs-related regulations, see [section 7](#), “Promoting Consumer Protection and Community Development,” on page 112.

During the last two decades, Congress has directed the Board to prescribe regulations implementing a variety of other payments-related statutes ([figure 6.11](#)). For example, the Board and the Treasury jointly promulgated regulations implementing the Unlawful Internet Gambling Enforcement Act of 2006, which requires designated payment system participants to establish policies and procedures to identify and block, or otherwise prevent or prohibit, unlawful internet gambling transactions.

In 2010, the Dodd-Frank Act provided the Board additional authority to regulate and supervise certain payment, clearing, and settlement systems and activities that have been designated as systemically important, as well as prescribe rules related to debit card interchange fees. In 2011, in accordance with the Dodd-Frank Act, the Board adopted rules limiting debit card interchange fees of certain issuers and prohibiting network exclusivity arrangements and routing restrictions. In 2012, pursuant to the Dodd-Frank Act, the Board adopted rules setting forth risk-management standards for certain financial market utilities (FMUs) and requirements regarding advanced notice to the Board from certain FMUs of material changes to their rules, procedures, or operations.

Expedited Funds Availability Act

The EFAA broadened the Federal Reserve Board’s authority to regulate interbank payments, including payments not handled by the Reserve Banks.

The Board initially used this expanded authority to adopt rules to speed the return of unpaid checks. These rules reduced the risk that banks in which checks had first been deposited would have to make the funds from check deposits available for withdrawal (under the EFAA's timing requirements) before learning whether the check had been returned unpaid. In the 1990s, the Board used this authority to adopt its same-day settlement rule, which improved competition between correspondent banks and the Reserve Banks in the collection of checks, spurring further efficiencies.

Electronic Check Processing

To help facilitate the electronic collection and return of checks, the Check 21 Act was enacted by Congress in 2003 and became effective in 2004. The Board adopted regulations implementing the act in 2004. To improve the efficiency of the check-collection process, the Check 21 Act enabled collecting banks to truncate all paper original checks, to send checks electronically to banks with which they have electronic exchange agreements, and to send paper substitute checks to banks with which they do not have such agreements. These changes materially hastened the electronic processing of checks.

In 2017, the Board made changes to its rules to reflect the nearly complete transition of the nation's check-collection system from one that was largely paper-based to one that is virtually all electronic.

Financial Market Utilities

The Federal Reserve regulates and supervises certain financial market utilities. FMUs are multilateral systems that provide the infrastructure for transferring, clearing, and settling payments, securities, and other financial transactions among financial institutions or between financial institutions and the system. These systems include payment systems, securities settlement systems, central securities depositories, and central counterparties.

FMUs play a critical role in the U.S. and global financial system. FMUs often give rise to risks and interdependencies among financial institutions both within and across national borders, creating the potential for widespread financial disruptions if an FMU fails to perform as expected. The Federal Reserve, with its mandate for financial stability, is particularly interested in the smooth functioning of these FMUs and their robust supervision.

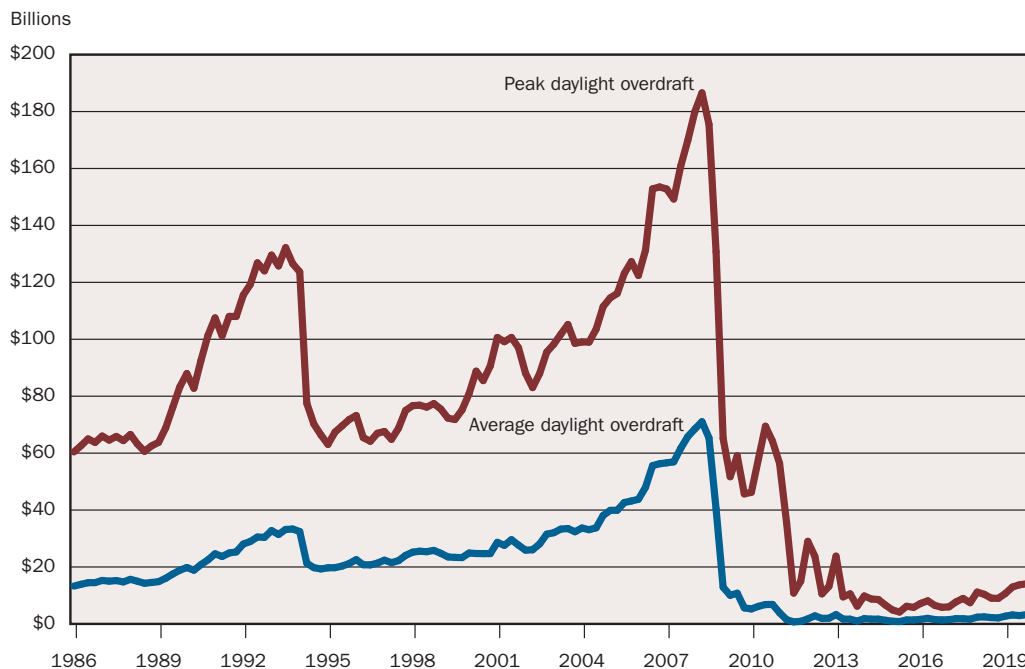
The Federal Reserve regulates and supervises certain FMUs under several authorities. Motivated by financial stability objectives, the Dodd-Frank Act sets forth an enhanced supervisory framework for FMUs that have been designated as systemically important by the Financial Stability Oversight Council. Among other things, the Dodd-Frank Act authorizes the Board to supervise certain designated FMUs and participate in the examinations of other designated FMUs.

The Board may also have an interest in the safety and efficiency of systems outside the United States that provide services to financial institutions supervised by the Board or that conduct activity that involves the U.S. dollar. In these cases, the Board will seek to cooperate with relevant authorities to share information, understand the risks that these systems pose to the U.S. financial system, and promote sound risk management.

Regulation HH sets the Board's risk-management standards for designated FMUs for which the Board is the supervisory agency pursuant to the Dodd-Frank Act. The Federal Reserve Policy on Payment System Risk (PSR policy) (https://www.federalreserve.gov/paymentsystems/psr_about.htm) sets forth the Board's views and related standards regarding risk management in payment, clearing, settlement, and recording systems more generally, including in payment and settlement systems operated by the Reserve Banks.

Figure 6.12. Peak and average daylight overdrafts of depository institutions, 1986–2019

The Federal Reserve measures the account balance of each depository institution at the end of each minute during the business day. An institution's peak daylight overdraft for a given day is its largest negative end-of-minute balance.



Note: Quarterly averages of daily data. The Federal Reserve measures each depository institution's account balance at the end of each minute during the business day. An institution's peak daylight overdraft for a given day is its largest negative end-of-minute balance. The System peak daylight overdraft for a given day is determined by adding the negative account balances of all depository institutions at the end of each minute and then selecting the largest negative end-of-minute balance. The average daylight overdraft for a given day is the sum of the average per-minute daylight overdrafts for all institutions on that day. Further data regarding peak and average daylight overdrafts is available in the Payment Systems section of the Federal Reserve Board's website, <https://www.federalreserve.gov/paymentsystems.htm>.

Providing Banking System Liquidity

For many years prior to the 2007–09 financial crisis, depository institutions in the aggregate typically held few funds overnight in their accounts at Reserve Banks relative to the trillions of dollars of payments processed daily by the System. To ensure the U.S. payment system’s smooth functioning, the 12 Reserve Banks extend intraday credit, or “daylight overdrafts” ([figure 6.12](#)).

Institutions incur daylight overdrafts in their Federal Reserve accounts because of the mismatch in timing between the settlement of payments owed and the settlement of payments due. To address the risk of providing such credit, the PSR policy—adopted by the Federal Reserve Board in 1985 and adjusted since then—controls institutions’ use of daylight overdrafts. The PSR policy balances the goals of ensuring smooth functioning of the payment system with the need to manage the direct risk to the Federal Reserve of offering institutions intraday credit.

The PSR policy establishes various measures to control the risks associated with daylight overdrafts. Beginning in 1985, the PSR policy set a maximum limit, or net debit cap, on depository institutions’ daylight overdraft positions. Institutions must have regular access to the Federal Reserve’s discount window so that they can borrow overnight from their Reserve Bank to cover any daylight overdrafts that are not eliminated before the end of the day. Beginning in 1994, the Reserve Banks began charging fees to depository institutions for their use of daylight overdrafts as an economic incentive to reduce their overdrafts, thereby reducing direct Federal Reserve credit risk and contributing to economic efficiency. In 2011, the Board revised the PSR policy to recognize explicitly the role of the central bank in providing intraday balances and credit to healthy depository institutions and to provide collateralized intraday credit at a zero fee.

Managing the Federal Reserve’s direct credit risk from institutions’ use of Federal Reserve intraday credit can prove crucial because there have been periods during which Reserve Bank exposure to daylight overdrafts has been significant and highly concentrated in a few institutions. For example, after the collapse of Lehman Brothers in September 2008, daylight overdraft activity rose to its highest level since the Federal Reserve began measuring it in the 1980s. Since 2008, higher overnight balances held at the Reserve Banks have been associated with lower levels of daylight overdrafts.

Despite the decline in overall levels of daylight overdrafts, this important tool continues to play a key role in many institutions’ efforts to efficiently settle daily payments.

Exploring and Implementing Payment System Improvements

Conducting 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 (PCS) systems and financial market infrastructures, as well as the role of these systems in the commercial activities of consumers, businesses, and governments.

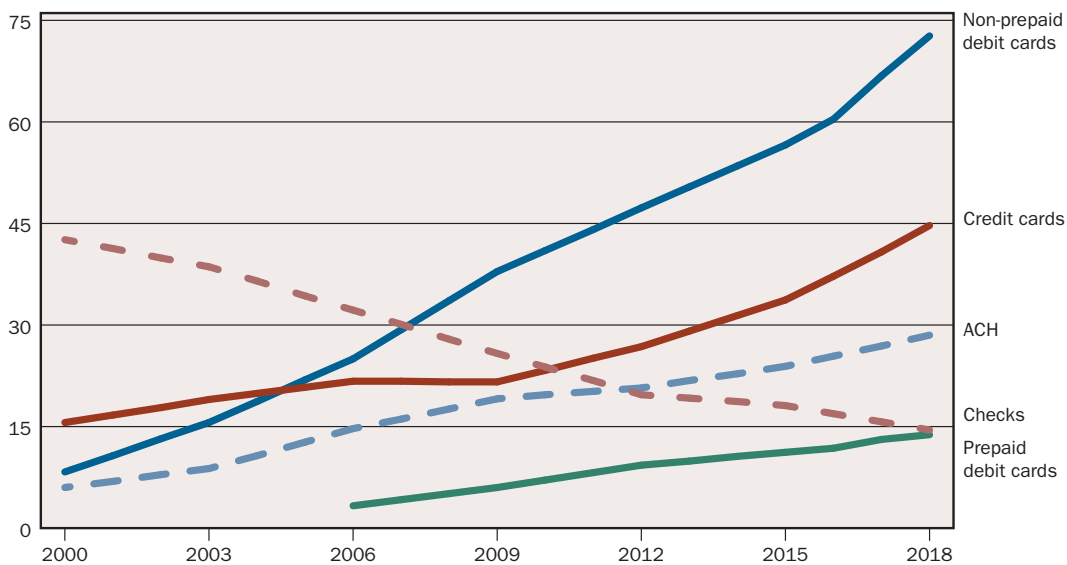
Both theoretical and empirical research and analysis of policy issues inform policymakers, the industry, and the public. Research topics include

- design of financial market infrastructure and risk management for complex financial instruments, including derivatives;
- analysis of technological change and market structure in payment and settlement activity;
- collection and analysis of data on the use of payment instruments and on the drivers of payment behavior; and

Figure 6.13. As popularity of electronic payments grows, use of checks declines

The Federal Reserve monitors trends in the payment system, such as the increasing use of electronic forms of payment. Since 2000, the use of debit cards has experienced the most growth, while the use of checks has steadily declined.

Number of noncash payments in billions



Note: Years in between studies are estimated linearly.

ACH Automated clearinghouse.

Source: The 2019 Federal Reserve Payments Study (available on the Federal Reserve Board's website, <https://www.federalreserve.gov/paymentsystems/2019-December-The-Federal-Reserve-Payments-Study.htm>).

- the effect of Federal Reserve policies on market participants, such as the implications of daylight overdraft policy and the effect of payment regulations.

To inform its supervision of financial market infrastructures, the Federal Reserve analyzes financial and technological trends in payments and other financial instruments. Analysis often focuses on economic efficiency and risk, including systemic risk and the impact of financial institutions engaged in PCS activities on financial markets' stability. Some examples of recent research topics include the role of central counterparties in clearing over-the-counter financial transactions and developments and risks in the market for triparty repurchase agreements.

Serving as a Catalyst for System Improvements

As the central bank, the Federal Reserve can act as a catalyst to improve the safety and efficiency of PCS systems, working in cooperation with the private sector and other public-sector institutions, both domestically and internationally.

For example, to help facilitate the electronic collection and return of checks, the Federal Reserve worked collaboratively with representatives of depository institutions, businesses, consumer groups, and the Treasury to develop the draft legislation that became the Check 21 Act. In addition, the Federal Reserve provided leadership, working with other central banks and market regulators to develop and, more recently, to enhance risk-management standards for systemically important financial market infrastructures.

The Federal Reserve has also used its role as a leader and catalyst in facilitating collaboration among industry stakeholders to identify, develop, and implement improvements in the end-to-end speed, safety, and efficiency of U.S. payments.

Building on extensive stakeholder outreach and market research, the Board and the Reserve Banks released the "Strategies for Improving the U.S. Payment System" paper in January 2015 (available in the Payment Systems section of the Federal Reserve Board's website, <https://www.federalreserve.gov/paymentsystems.htm>). The paper communicates desired outcomes for the U.S. payment system and outlines the strategies and tactics the Federal Reserve will pursue, in collaboration with stakeholders, to help the country achieve these outcomes.

The Board and Reserve Banks issued "Strategies for Improving the U.S. Payment System: Federal Reserve Next Steps in the Payments Improvement Journey" in September 2017 (available in the Payment Systems section of the Federal Reserve Board's website, <https://www.federalreserve.gov/paymentsystems.htm>). The paper communicates the Federal Reserve's next steps for collaborating with the industry to move closer to achieving the desired outcomes as described in the 2015 Strategies Paper.

The Federal Reserve's research efforts may also act as a catalyst for change. For example, the Federal Reserve's payments surveys help inform the strategic plans of payment system participants by providing data and insights regarding payment trends. For the latest on Federal Reserve efforts to support innovation, visit the innovation website at <https://www.federalreserve.gov/aboutthefed/innovation.htm>.

7

Promoting Consumer Protection and Community Development

The Federal Reserve advances supervision, community reinvestment, and research to improve understanding of the impacts of financial services policies and practices on consumers and communities.

Consumer Protection Supervision and Examination	114
Administering Consumer Laws and Drafting Regulations	123
Research and Analysis of Emerging Consumer Issues	123
Community Economic Development Activities	125

The Federal Reserve is responsible for promoting consumer protection and community development to help ensure a fair and transparent financial services marketplace that benefits all Americans.

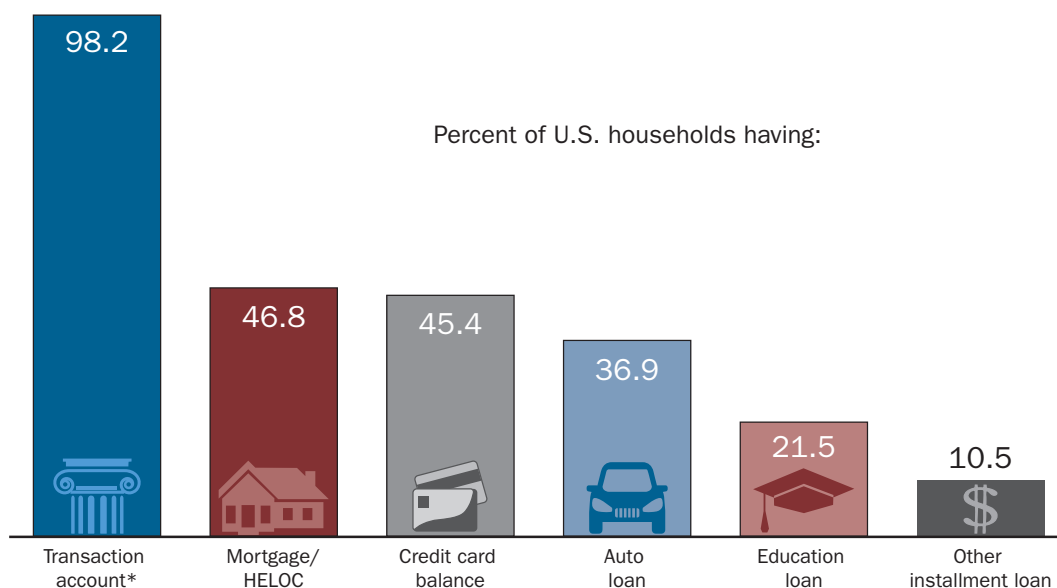
The Federal Reserve understands that healthy communities and well-served consumers help support and drive economic growth. That's why the Federal Reserve is committed to ensuring that consumer and community perspectives inform its policy, research, and actions.

The Federal Reserve promotes consumer protection and community development in several ways, namely

- formulating and carrying out risk-focused supervision and examination policy to ensure that financial institutions under its jurisdiction comply with applicable consumer protection laws and regulations and meet the requirements of community reinvestment laws and regulations;

Figure 7.1. The Federal Reserve works to ensure that the financial institutions it supervises comply with laws that protect consumers

Federal Reserve survey data show that nearly all American families are involved in the financial services marketplace, whether as bank account holders, credit card users, or borrowers. The Federal Reserve's consumer-focused supervision and regulation, research and analysis, and community engagement programs help ensure that consumer and community perspectives inform supervisory and policy work.



* Transaction account includes checking, savings, and money market deposit accounts; money market mutual funds; call or cash accounts at brokerages; and prepaid debit cards.

HELOC Home equity line of credit.

Source: 2019 Survey of Consumer Finances (available in the Economic Research section of the Federal Reserve Board's website, <https://www.federalreserve.gov/econres/scfindex.htm>).

- writing and reviewing regulations that implement consumer protection and community reinvestment laws, taking into account, when appropriate, institutions' business models and asset size;
- conducting rigorous research, analysis, and data collection to identify and assess consumer and community development issues to understand emerging opportunities and risks when making policy decisions; and
- engaging, convening, and informing key stakeholders to identify emerging issues and policies and practices to advance effective community reinvestment and consumer protection.

Consumer Protection Supervision and Examination

Various consumer protection, fair lending, fair housing, and community reinvestment laws apply to how financial institutions interact with their customers and their communities. A primary Federal Reserve responsibility to consumers is to ensure that the financial institutions under its jurisdiction comply with applicable laws established by Congress and regulations implemented by the federal regulatory agencies.

Who the Federal Reserve Supervises for Consumer Protection Laws and Regulations

The Federal Reserve conducts tailored, risk-focused supervision of state member banks for compliance with consumer- and community-oriented laws commensurate with their size and risk profile based on their products and services (for a full discussion of state member banks, see [section 5](#), “Supervising and Regulating Financial Institutions and Activities,” on page 62). The Federal Reserve evaluates

- performance under the Community Reinvestment Act (CRA) for all state member banks, regardless of size;
- compliance by all state member banks, regardless of size, and their affiliates with the Fair Housing Act, the Servicemembers Civil Relief Act, the National Flood Insurance Act, prohibitions on unfair or deceptive acts or practices (UDAP) under the Federal Trade Commission Act, and certain other federal consumer financial protection laws not specifically under the Consumer Financial Protection Bureau's authority; and
- compliance by state member banks with total assets of \$10 billion or less with all federal consumer financial protection laws and regulations. (See [figure 7.2](#) for an overview of federal consumer financial protection laws and regulations that apply to banks.)

In addition, the Federal Reserve serves as the consolidated supervisor for all bank holding companies and ensures that assessments of consumer compliance risk are appropriately incorporated

into a holding company's consolidated supervision rating. The Federal Reserve has additional supervisory responsibility as the federal supervisor for savings and loan holding companies and the consolidated supervisor for foreign banking organizations and nonbank financial companies designated by the Financial Stability Oversight Council for supervision by the Federal Reserve under the Dodd-Frank Wall Street Reform and Consumer Protection Act. (For more details on entities the Federal Reserve supervises, see [section 5](#), “Supervising and Regulating Financial Institutions and Activities,” on page 62.)

How the Federal Reserve Supervises for Consumer Protection Laws and Regulations

The Federal Reserve Board of Governors (Board of Governors), and the 12 Federal Reserve Banks (Reserve Banks) under delegated authority, have responsibilities for consumer compliance supervision of organizations under the Federal Reserve's jurisdiction. The Board's Division of Consumer and Community Affairs (DCCA) supports the Board in carrying out its consumer protection activities.

The Board develops consumer compliance supervisory policies and identifies emerging issues; provides continuous examiner training; and assists with the enforcement of fair lending, UDAP, and flood insurance violations. Further, the Board evaluates applications involving bank or thrift holding companies or state member banks that present CRA or consumer compliance issues, or that receive adverse comments from external parties. The Board also works with other agencies to promote consistency in examination principles, standards, and processes.

A Regional Approach to Supervision

The Federal Reserve employs a regionalized approach to supervision. The Board has delegated its examination authority to the 12 Reserve Banks, which maintain consumer compliance supervisory programs that evaluate institutions for their level of compliance with applicable consumer protection laws, using policies set by the Board that are tailored to account for risk profiles and asset size. Each Reserve Bank has a staff of examiners who conduct periodic compliance examinations at financial institutions under the Federal Reserve's supervisory authority, including state member banks and bank holding companies. Consumer compliance examiners review the policies and practices that pertain to consumer products and services offered at each of these institutions. Staff in DCCA oversee these Reserve Bank programs and routinely evaluate their effectiveness.

The network of Reserve Banks across the United States is integral to the implementation of the Federal Reserve's supervisory policy and helps inform the Board's understanding of consumer financial services trends and issues that may be specific to some regions of the country.

Figure 7.2. Federal consumer financial protection laws and regulations applicable to banks

Financial institutions must comply with a variety of laws and regulations that protect consumers. The Federal Reserve Banks, using policies set by and under delegated authority from the Board of Governors, maintain consumer compliance supervisory programs that evaluate institutions for their level of compliance with applicable consumer protection laws.

General banking	
Federal Trade Commission Act	Prohibits unfair or deceptive acts or practices in any aspect of banking transactions.
Gramm-Leach-Bliley Act (title V, subpart A), Disclosure of Nonpublic Personal Information*	Describes the conditions under which a financial institution may disclose nonpublic personal information about consumers to nonaffiliated third parties, provides a method for consumers to opt out of information sharing with nonaffiliated third parties, and requires a financial institution to notify consumers about its privacy policies and practices.
Depository accounts	
Electronic Fund Transfer Act/Regulation E*	Requires disclosure of the terms and conditions of electronic fund transfers. Protects consumers against unauthorized transfers and establishes procedures for resolving errors and disputes.
Expedited Funds Availability Act/Regulation CC	Limits hold periods on deposits made to depository institutions and requires appropriate consumer disclosures.
Truth in Savings Act/Regulation DD*	Requires uniform disclosure of terms and conditions regarding interest rates and fees associated with deposit accounts. Prohibits misleading and inaccurate advertisements.
Credit/general lending	
Truth in Lending Act/Regulation Z*	Requires lenders to clearly disclose lending terms and costs to borrowers, and incorporates the provisions of the Credit Card Accountability Responsibility and Disclosure Act, Fair Credit Billing Act, Fair Credit and Charge Card Disclosure Act, Home Equity Loan Consumer Protection Act, and Home Ownership and Equity Protection Act.
Fair Credit Reporting Act/Regulation V*	Protects consumers from unfair credit reporting practices and requires credit-reporting agencies to allow credit applicants to correct inaccurate credit reports.
Equal Credit Opportunity Act/Regulation B*	Prohibits creditors from discriminating on the basis of race, color, national origin, religion, sex, marital status, age, receipt of public assistance, and exercise of rights under the Consumer Credit Protection Act.
Community Reinvestment Act/Regulation BB	Encourages financial institutions to help meet the credit needs of their entire communities, including low- and moderate-income neighborhoods.

(continued on next page)

Figure 7.2. Federal consumer financial protection laws and regulations applicable to banks
(continued)

Disclosure and Reporting of CRA-Related Agreements/Regulation G	Requires banks and their affiliates and other parties to make public certain agreements that are in fulfillment of the Community Reinvestment Act, and to file annual reports concerning the agreements with the appropriate agency.
Fair and Accurate Credit Transactions Act*	Amends the Fair Credit Reporting Act. Enhances consumers' ability to combat identity theft, increases the accuracy of consumer reports, allows consumers to exercise greater control over the type and amount of marketing solicitations they receive, restricts the use and disclosure of sensitive medical information, and establishes uniform national standards in the regulation of consumer reporting.
Servicemembers Civil Relief Act and Military Lending Act	Provides members of the military certain financial protections while on active duty.
Mortgage lending	
Fair Housing Act	Prohibits discrimination in the sale, rental, and financing of dwellings and housing-related transactions on the basis of race, color, national origin, religion, sex, handicap, or familial status.
Real Estate Settlement Procedures Act/Regulation X*	Requires that the nature and costs of real estate settlements be disclosed to borrowers. Also protects borrowers against abusive practices, such as kickbacks, and regulates the use of escrow accounts.
Home Mortgage Disclosure Act/Regulation C*	Requires mortgage lenders to annually disclose to the public data on the geographic distribution of applications and loans for originations, purchases, home-improvement, and refinancings. Requires lenders to report data on the ethnicity, race, sex, income of applicants and borrowers, and other data. Also directs the Federal Financial Institutions Examination Council, of which the Federal Reserve is a member, to make summaries of the data available to the public.
Other financial topics	
Flood Disaster Protection Act/Regulation H	Requires flood insurance in connection with loans secured by property located in a flood hazard area designated under the National Flood Insurance Program.
Consumer Leasing Act/Regulation M*	Requires disclosure of information about the costs and terms of consumer leases for vehicles and other personal property.

* The Federal Reserve System does not examine for these laws and regulations for depository institutions with total assets in excess of \$10 billion.

Insights and examination findings from the Reserve Banks support the Federal Reserve's efforts to ensure that banking institutions effectively serve consumers and communities and treat consumers fairly in their credit and financial transactions.

Risk-Focused Consumer Compliance Supervision

The Federal Reserve applies a risk-focused approach to consumer compliance supervision, tailoring examination focus most intensely on those areas involving the greatest compliance risk. This approach is designed to promote strong compliance risk-management practices at financial institutions and to enhance the efficacy of the Federal Reserve's supervision program while reducing supervisory burden on the institutions under the Federal Reserve's jurisdiction.

Consumer Affairs (CA) letters

To see the wide range of consumer issues addressed by the Federal Reserve through CA letters, visit the Consumers & Communities section of the Board's website at <https://www.federalreserve.gov/supervisionreg/caletters/caletters.htm>.

Under the Federal Reserve's risk-focused consumer compliance supervision program, consumer compliance examiners follow procedures for assessing an individual financial institution's risk profile, including its consumer compliance culture and how effectively it identifies and manages consumer compliance risk,

to tailor the scope and resources needed to conduct an examination. The risk-focused supervision program also incorporates ongoing supervision to support institutions in their compliance efforts by helping to identify and, if necessary, address areas of risk in the institution's compliance risk-management program or in the level of consumer compliance risk present, as well as to ensure that supervisory information is up to date.

The Federal Reserve also maintains a risk-focused program for assessing consumer compliance risk at bank holding companies in the System, to ensure that consumer compliance risk is effectively integrated into the holding company rating.

Supervisory Policies and Guidance

The Federal Reserve communicates consumer-related policy and supervisory expectations and priorities through Consumer Affairs (CA) supervisory letters, as well as in joint Supervision and Regulation (SR) letters, when appropriate. The Federal Reserve often works closely with other supervisors in crafting policy statements and guidance that articulates the agencies' general views regarding appropriate practices for a given topic, including compliance with mortgage-related transactions and data reporting, privacy of consumer financial information, special legal protections for service members' credit transactions, and examination procedures for various consumer protection laws and regulations and the CRA.

Box 7.1. Supporting Compliance with Consumer Laws and Regulations

The Federal Reserve's consumer compliance supervision program is founded on the principle that consumer compliance risk management is an integral part of an institution's corporate-wide risk management.

The Federal Reserve's goal is to support each institution in its efforts to comply with federal consumer protection laws and regulations and by reviewing its processes and programs to keep up with new or revised compliance requirements that may arise as laws, regulations, and bank products and services change. Examiners review various indicators of effective consumer compliance risk management:

- **Board of directors and senior management oversight.** Directors understand they have ultimate responsibility for the risk taken by their institutions. Examiners seek to ensure that senior management is implementing strategies that effectively identify and control for consumer compliance risk.
- **Policies and procedures.** An effective compliance management program includes documented policies, procedures, and processes for monitoring and controlling compliance risks.
- **Risk monitoring.** Robust and timely information management systems should be in place to provide timely reports to support management in monitoring an institution's financial condition, operating performance, and risk exposure.
- **Internal controls.** An institution's internal control structure allows it to effectively manage its consumer compliance risk, and creates effective lines of authority and responsibility.
- **Training.** An institution should provide its personnel with training regarding rules, regulations, policies, and procedures that impact the institution's business lines.

The Federal Reserve conducts outreach and training to financial institutions through webinars, newsletters, and other means to support their understanding of updates and supervisory information. For more details on these efforts, see the "Consumer and Community Affairs" section of the Board's *Annual Report* (<https://www.federalreserve.gov/publications/annual-report.htm>).

Interagency Initiatives

Through its participation on the Federal Financial Institutions Examination Council (FFIEC), the Federal Reserve collaborates with other federal and state banking agencies on consumer financial supervisory guidance. The FFIEC works to develop uniform principles, standards, and report forms for the federal examinations of financial institutions. These efforts promote the goal of supervisory consistency and uniformity across the banking industry.

The Board's FFIEC representative is advised by DCCA staff regarding policy, procedures, and guidance related to consumer compliance supervision. For more information on interagency supervisory initiatives, see "[Other Federal Authorities and Entities](#)" on page 69.

How the Federal Reserve Enforces Consumer Protection Laws and Rules

After a consumer compliance examination, examiners issue a confidential report of examination, which includes a consumer compliance program rating that reflects the institution's performance with regard to consumer compliance. When an examination reveals that an institution's policies or practices do not comply with consumer protection rules and regulations, examiners cite violations in the report of examination and require management to correct the violations and address any program deficiencies. The Federal Reserve also has additional supervisory tools to ensure that bank management addresses consumer compliance program weaknesses, including informal and formal enforcement actions.

Formal enforcement actions include

- executing a written agreement between the Federal Reserve and the financial institution's board of directors or its management that requires the institution to take specified corrective action;
- issuing cease-and-desist orders to halt practices in violation;
- assessing civil money penalties, when appropriate, depending on the nature, severity, and degree of harm to consumers as a result of deficient practices; and
- ordering remedies or restitution to consumers affected by an institution's violations.

Evaluating Performance under the Community Reinvestment Act

The CRA encourages depository institutions to help meet the credit needs of their local communities, including low- and moderate-income neighborhoods, consistent with safe and sound operations. The CRA requires the Federal Reserve to evaluate each state member bank's CRA performance and assign one of four CRA ratings—Outstanding, Satisfactory, Needs to Improve, or Substantial Noncompliance. The CRA rating and conclusions, as well as the facts, data, and analysis that support the bank's rating, are summarized in a publicly available performance evaluation.

CRA examiners assess a bank's performance using examination procedures tailored to the bank's size and the type of business it does. Performance is evaluated in the context of the institution and the communities within which it operates. That means examiners consider information about the bank's business strategy, product offerings, capacity, and constraints, as well as the economic conditions, lending, investment, and service needs and opportunities in the bank's communities.

The public can also play a role in the CRA examination process by offering comments on an institution's CRA performance, which the financial institution must make accessible to the public. Examiners review these comments and consider them when evaluating a bank's overall CRA performance.

An institution's CRA rating and comments from the public are also considered when the institution applies to open additional branches or to engage in a merger or acquisition. The public has the opportunity to submit written comments on an application. These comments are considered by the Board when it evaluates the application.

For more information on the Federal Reserve's role with the CRA, how banks are evaluated, and exam schedules, see the Community Reinvestment Act section of the Board's website (https://www.federalreserve.gov/consumerscommunities/cra_about.htm).

CRA history, public input, and resources

The Community Reinvestment Act (CRA), enacted in 1977 amid concerns over redlining (discrimination in lending based on a community's racial composition), codifies that banks have a continuing and affirmative obligation to help meet the credit needs of their local communities, including low- and moderate-income neighborhoods. Federal banking regulators each publish CRA regulations that detail how the law is implemented and encourage public input in their assessment of banks' CRA performance to inform supervision and decisions about a bank's application to open more branches or complete a merger or acquisition. For CRA resources and more on submitting comments, see https://www.federalreserve.gov/consumerscommunities/cra_about.htm.

Responding to Consumer Feedback

In addition to tailored, risk-focused examiner reviews of financial institutions, Federal Reserve staff identify and investigate possible violations of consumer protection laws through the Federal Reserve System's consumer complaint and consumer inquiry programs. Through these programs, staff answer consumers' questions, explain consumer rights under federal law, investigate complaints against entities supervised by the Federal Reserve, and refer complaints about other entities to the appropriate agency. Consumer complaints are a critical component of the risk-focused supervision program. The Federal Reserve uses data on consumer complaint activity in its supervisory processes when monitoring financial institutions, scoping and conducting examinations, and analyzing applications. Information about consumer complaints is also reported in the Federal Reserve Board's Annual Report to Congress (available at <https://www.federalreserve.gov/publications/annual-report.htm>).

Handling Complaints

The Federal Reserve has uniform policies and procedures for investigating and responding to consumer complaints, which are implemented by staff at the 12 Reserve Banks and the Federal Reserve Consumer Help (FRCH) Center. The FRCH is a centralized consumer complaint and inquiry processing center, which allows consumers to contact the Federal Reserve online or by telephone, fax, mail, or email.

When a consumer files a complaint with the FRCH, the first step is to determine which Reserve Bank or other banking agency has responsibility for investigating that complaint. If the complaint involves an entity that is not supervised by the Federal Reserve, the FRCH forwards the complaint

Box 7.2. Federal Reserve Consumer Help: Responding to Consumer Complaints and Inquiries

Federal Reserve Consumer Help (FRCH), a centralized consumer complaint and inquiry processing center, allows consumers to contact the Federal Reserve online or by telephone, fax, mail, or email.

The FRCH website (<https://www.federalreserveconsumerhelp.gov>) is a resource for consumers to learn about financial products and services and provides instructions on how to file a consumer complaint with the Federal Reserve.



to the appropriate agency and then tells the consumer how to contact that agency. If a complaint involves an institution supervised by the Federal Reserve System, the FRCH forwards it to the Reserve Bank that examines the institution in question to conduct an investigation. The FRCH typically responds to consumers within 15 business days of the complaint submission.

After receiving the complaint from the FRCH, the Reserve Bank forwards the consumer complaint to the institution to obtain a written response. During the complaint investigation, the Reserve Bank analyzes the documentation provided by the consumer and the institution to determine if the institution violated a law, handled the situation correctly, or corrected an error. The Reserve Bank communicates the outcome of the investigation to the consumer in writing.

Addressing Inquiries and Potential Financial Scams

The FRCH receives thousands of consumer inquiries on a wide range of topics each year. FRCH staff strive to provide consumers with information about their rights to enable an understanding of financial products and services, which may be useful in future financial decisionmaking. The FRCH website offers information about many of these topics—credit cards, checking accounts, electronic

banking, mortgages, and foreclosures. Consumers are directed to resources offered by federal agencies and trusted organizations to get accurate and straightforward information to answer their questions.

The FRCH also empowers consumers to recognize and report potential scams. The FRCH website contains information alerting consumers to characteristics of a scam and provides a link for reporting the information on a product or service they suspect is a scam.

Administering Consumer Laws and Drafting Regulations

The Federal Reserve Board has rulemaking responsibility under specific statutory provisions of the consumer financial services laws. The Board issues regulations to implement those laws and also issues (directly or through staff) official interpretations and compliance guidance for the financial industry and for the Reserve Banks' examination staff. The Board also regularly works with other federal financial regulatory agencies in proposing rules and procedures to implement new laws and amendments to existing laws and considers, where appropriate, the impact and burden on institutions of various size and business models. These joint efforts aim to ensure that consumer protections mandated by Congress are enforced effectively across all institutions.

Research and Analysis of Emerging Consumer Issues

Research and analysis about consumers, their financial experiences, and the communities in which they live inform Federal Reserve policymaking.

The Board and the Reserve Banks collaborate to identify trends and emerging issues that impact the financial livelihood and well-being of consumers and communities. This effort relies on a variety of resources, including a wealth of data collected through surveys and independent research. Findings from compliance examinations and trends in consumer complaints also help to shed light on emerging issues. Sources of data and information continually evolve as information resources and technology provide better insights into the financial services and community development issues of consumers and neighborhoods.

To inform its research efforts, the Federal Reserve engages with consumer and community groups, academic and policy organizations, and conducts consumer surveys to gain insight into trends in consumer financial services, community economic development, and policy matters. This information and data contribute to the Federal Reserve's work and provide the consumer perspective for other Federal Reserve System functions.

The results of the Federal Reserve’s research and policy analysis inform its policymaking in various ways. Tracking and studying emerging issues allows the Federal Reserve to evaluate the impact that financial services and market trends may have on consumers and communities. Results are often published and disseminated to inform and foster discussion among regulators, industry groups, consumer and community advocates, and academic and policy organizations.

The Federal Reserve produces consumer- and community-focused research and analysis that looks at consumer and household issues broadly, as well as a number of specialized topics, including

- unemployment and workforce development,
- community investment and stabilization,
- household economics and decisionmaking,
- economic conditions and opportunities for rural communities, and
- economic and credit conditions in low- and moderate-income populations and neighborhoods.

In particular, the Board’s Survey of Household Economics and Decisionmaking (SHED), conducted annually, measures the economic well-being of U.S. households and identifies potential risks to their finances. See [figure 7.3](#) for more details on the SHED, or go to <https://www.federalreserve.gov/consumerscommunities/shed.htm>.

Figure 7.3. Federal Reserve research examines trends and issues affecting consumers and households

The Federal Reserve Board conducts the annual Survey of Household Economics and Decisionmaking (SHED), a nationally representative survey that evaluates the economic well-being of U.S. households and identifies potential risks to their financial stability. The survey includes modules on a range of topics of current relevance to financial well-being, including economic fragility, employment, banking and credit access, housing, education, student loans, and retirement.

Handling Unexpected Expenses

Faced with an unexpected \$400 expense...

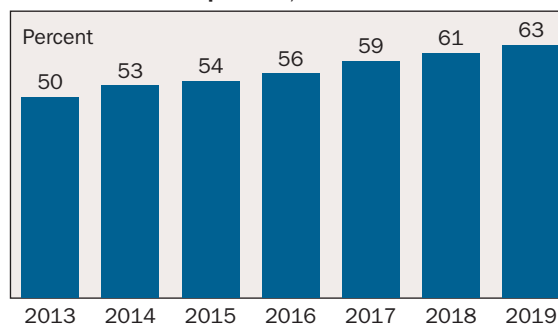
In 2019:

63% would pay using cash or its equivalent
25% would borrow or sell something
12% could not pay

Versus 2013:

50% would pay using cash or its equivalent
32% would borrow or sell something
18% could not pay

Would pay unexpected \$400 expense with cash or its equivalent, 2013–19



Note: “Cash or its equivalent” means cash, savings, or a credit card paid off at the next statement.

Source: *Report on the Economic Well-Being of U.S. Households in 2019, Featuring Supplemental Data from April 2020* (published May 2020), available at <https://www.federalreserve.gov/consumerscommunities/shed.htm>.

For additional Federal Reserve research on consumer topics, visit the Consumers & Communities section of the Federal Reserve Board's website at <https://www.federalreserve.gov/consumer-communities.htm>.

Community Economic Development Activities

The Federal Reserve supports the growth of a strong, stable, and inclusive economy. Increasing economic opportunity is good for individuals and communities, and it is vital to the overall economy. That's why community development staff at the Federal Reserve Board and at each of the Reserve Banks work to foster economically resilient communities all across the country, bring people together to help remove barriers to upward mobility in underserved communities, and ensure that people have access to the information and resources that help them thrive.

Federal Reserve community development staff engage in a wide variety of activities, focused on such issues as affordable housing, access to financial services, and community development finance. Although activities vary throughout the System, they aim to advance goals in four key areas:

- **Policy and practice:** Promoting the well-being of economically vulnerable communities by enhancing the scale, sustainability, and impact of community development finance, workforce development, and affordable housing solutions.
- **Financial capability:** Helping to sustain and promote policies that improve access to financial services, financial stability, and economic mobility of lower-income communities and individuals.
- **Community revitalization:** Engaging in "place-based" efforts to revitalize underserved communities in both rural and urban areas by advancing comprehensive community development efforts that are responsive to local and regional needs.
- **Small business:** Working with intermediaries to support small businesses and microenterprises in order to help increase the capacity of funding and technical assistance providers; enhancing the availability of credit and capital for small businesses; and building a deeper understanding of small business trends and conditions.

The CD function of the Federal Reserve System is made up of dedicated community development departments at each of the 12 Reserve Banks, as well as at the Board, that collaborate to advance effective community development policies and practices through a range of activities, including

- **Convening stakeholders:** The function brings together practitioners from financial institutions, nonprofits, governmental agencies, and the philanthropic and private sectors to collaborate on

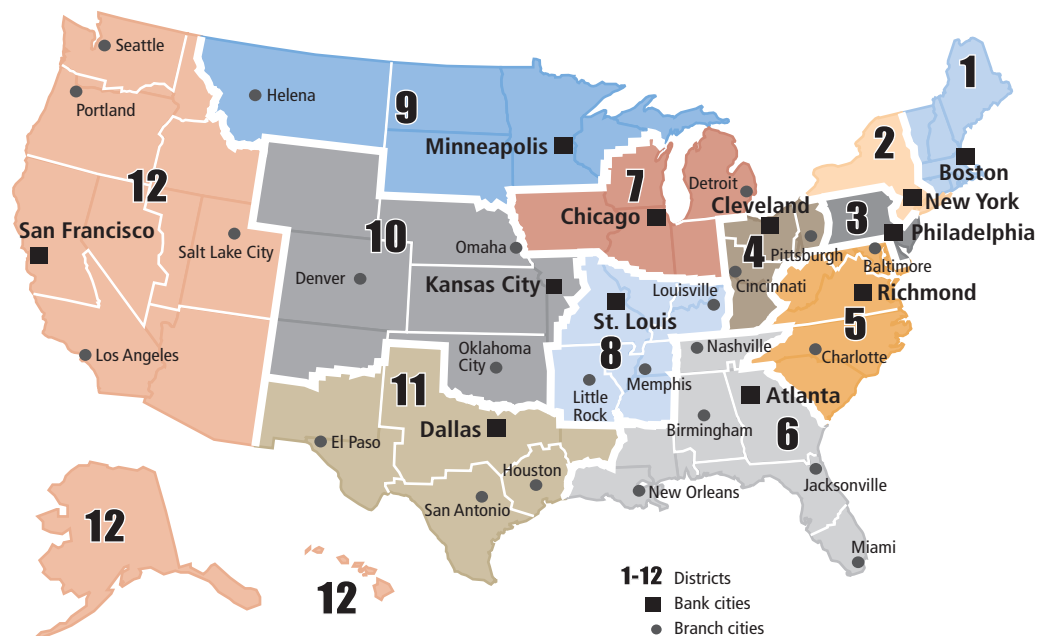
community and economic development initiatives and to identify both key challenges and promising practices to address them.

- **Conducting and sharing research:** The function provides policymakers and practitioners with objective analysis on the economic challenges facing lower-income communities and related policy and program implications. CD research is shared in blogs, articles, and working papers as well as in small group settings and at larger scale conferences.
- **Identifying emerging issues:** The function gathers and analyzes current information on economic and financial conditions to identify emerging issues affecting lower-income communities and individuals. For example, staff regularly conduct web-based polls or surveys of individuals and organizations to help track perceptions and provide market intelligence and sentiments around a wide range of CD issues.

The CD function supports the implementation of the CRA through a wide range of activities, including assessing community economic development and credit needs, fostering conditions supportive of investment, lending and banking services in low- and moderate-income communities, and

Figure 7.4. Federal Reserve community development efforts engage at the national and local levels

The Federal Reserve has dedicated community development staff in each of its offices throughout the country who work collaboratively to engage stakeholders; to understand issues and challenges in low- and moderate-income communities; and to provide research, policy insights, and technical assistance to support community and economic development programs.



sharing information on lending and investment opportunities. CD also seeks to mobilize ideas, networks, and approaches that address a wide range of community and economic development challenges. The function leverages its capacity by working with intermediaries that offer financial, real estate development, advisory, and human services, rather than working directly with consumers or providing direct funding.

Working at the National Level

The community development program at the Board of Governors serves as the Federal Reserve's primary liaison to national community organizations and financial intermediaries on interagency projects and task forces. This effort convenes local and national stakeholders to discuss potential solutions to issues faced by communities throughout the country (figure 7.4).

In 2015, the Board established its Community Advisory Council (CAC) to provide insights on the economic circumstances and financial services needs of consumers and communities, with a particular focus on the concerns of low- and moderate-income consumers and communities. The members of the CAC represent 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, small business, and asset and wealth building. This council complements the Board's other advisory councils—the Community Depository Institutions Advisory Council and the Federal Advisory Council (see pages 13–14 in [section 2](#), “The Three Key System Entities,” for more information on Board advisory councils).

In addition to the CAC, the Board seeks perspectives directly from community organizations, with community development staff collaborating with a wide range of private and public entities, including NeighborWorks America, the Department of Housing and Urban Development, the Small Business Administration, the Department of the Treasury, the Department of Agriculture, and the Bureau of Indian Affairs.

The Board's community development staff also promote and coordinate Systemwide, high-priority efforts. Initiatives have included close coordination with community development staff at the Federal Reserve Banks to study the impact of foreclosed properties on communities and consumers as well as the credit needs of small businesses. Such initiatives result in collaborations with a broad range of government agencies at the federal, state, and local levels, and conferences and other events that brought together community organizations, lenders, academics, and government officials. These efforts also have resulted in publications and reports that share promising practices and policy solutions, as well as research and ongoing projects to address the challenges confronting lower-income communities and individuals.

Box 7.3. Community Development: Targeting the Challenges and Concerns on Main Street

The Federal Reserve leverages a network of regional Federal Reserve Bank staff to support community development by targeting the specific, unique challenges faced by different communities throughout the country.

- **Community development website:** The Federal Reserve's work in community development is captured in a central portal at <https://fedcommunities.org>. The site links the System's community development resources and research by topic and region.
- **Support for employment and workforce development:** The Federal Reserve recognizes the challenges facing populations with historically higher unemployment rates, such as youth, the less-educated, and minorities, and works to help identify effective policies and practices that address obstacles to employment.
- **Support for small businesses and entrepreneurship:** Viable small businesses and small-business owners are key to vibrant local economies. The Federal Reserve works to help identify opportunities to improve access to capital and credit for small-business development.
- **Support for neighborhood revitalization:** The Federal Reserve supports efforts to align communities' development needs with available resources and advocates the strategic use of data and other tools to achieve this goal.



Federal Reserve staff and officials routinely convene conferences and events focused on community development issues. In May 2019, Chair Powell gave opening remarks at a System biennial community development research conference, "Renewing the Promise of the Middle Class" (speech available at <https://www.federalreserve.gov/newsevents/speech/powell20190509a.htm>).

Engaging at the Local Level

The community development issues faced by different regions of the country are often unique to each area because of differing market influences and trends. In recognition of this dynamic, the Reserve Banks develop their programs to target the most pressing community and economic development needs and issues in their Districts.

Much of this work involves promoting mutually beneficial relationships between local governments, financial institutions, nonprofit organizations, and the communities those entities serve. The Reserve Banks sponsor forums and conferences to provide research and policy insights on community development issues and offer the opportunity for stakeholders to engage face-to-face. In addition to bringing these stakeholders together, community development staff provide them with the information and technical assistance needed to develop and implement effective community and economic development programs.



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