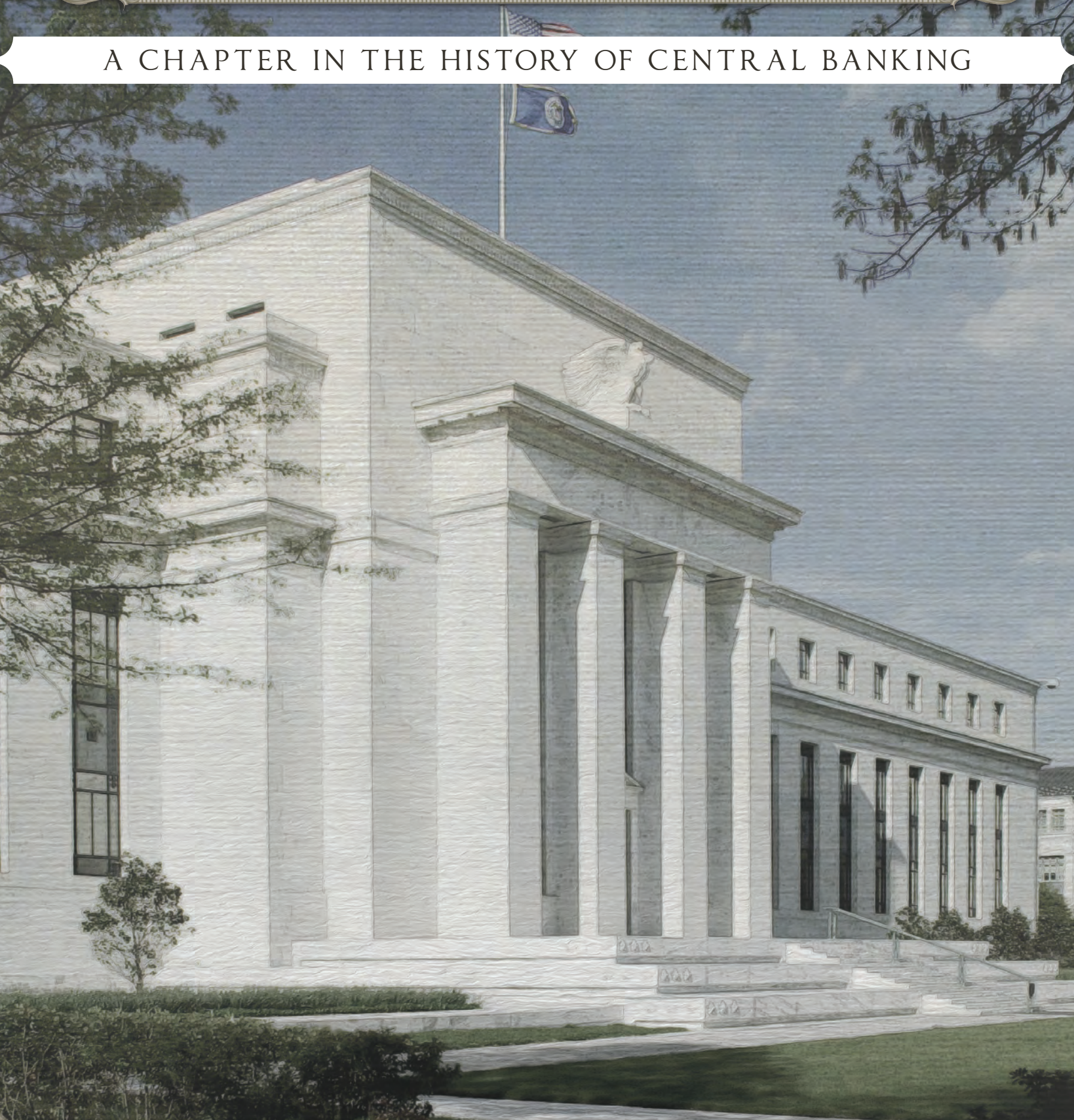


FEDERAL RESERVE SYSTEM

The First 100 Years

A CHAPTER IN THE HISTORY OF CENTRAL BANKING



FEDERAL RESERVE SYSTEM

The First 100 Years

A Chapter in the History of Central Banking

In 1913, Albert Einstein was working on his new theory of gravity, Richard Nixon was born, and Franklin D. Roosevelt was sworn in as assistant secretary of the Navy. It was also the year Woodrow Wilson took the oath of office as the 28th President of the United States, intent on advocating progressive reform and change. One of his biggest reforms occurred on December 23, 1913, when he signed the Federal Reserve Act into law. This landmark legislation created the Federal Reserve System, the nation's *central bank*.¹

A Need for Stability

Why was a central bank needed? The nation had tried twice before to establish a central bank modeled after European central banks to act as a *fiscal agent* for the government. The first Bank of the United States was established by Congress in 1791, at the request of Alexander Hamilton, the nation's first secretary of the Treasury. Although the first Bank's 20-year charter was not renewed, the War of 1812 and the ensuing inflation and economic turmoil convinced Congress to try again, and it

established the second Bank of the United States. It was also given a 20-year charter and operated from 1816 to 1836; however, its charter was not renewed either. After the charter expired, the United States endured a series of financial crises during the 19th and early 20th centuries. Several factors contributed to the crises, including a number of bank failures, which generated waves of bank panics and economic instability.²

When Jay Cooke and Company, the nation's largest bank, failed in 1873, a panic erupted, leading to runs on other financial institutions. Within months, the nation's economic problems deepened as silver prices dropped after the Coinage Act of 1873 was passed, which dampened the interests of U.S. silver miners and led to a recession that lasted until 1879.

Although the boom in railroad construction succeeded in uniting the country from coast to coast during the post-Civil War years, the boom eventually came to the end of the line. As the last spike was pounded into western soil, the demise of railroad construction led to financial difficulties for not only the railroads but the iron and steel industries as well. The resulting recession from 1882 to 1885 generated

more bank panics, railroad failures, a withdrawal of European investments, a stock market crash, and a run on the U.S. gold supply.

When the Knickerbocker Trust Company in New York City failed in 1907, it unleashed countless runs on other trust companies.³ In response, Congress passed the Aldrich-Vreeland Act in 1908, which issued emergency currency and established an 18-member National Monetary Commission to find ways to stabilize the nation’s monetary system. The commission released 30 reports, one of which was submitted to Congress four years later. It described U.S. currency as “inelastic,” meaning that the quantity of money being supplied could not adjust quickly to changes in demand. The report also pointed out that the United States had no effective national agency to help transfer funds between different parts of the country or to help prevent disruptions in such transfers during times of economic turmoil.

To address the inadequacies outlined in its report, the commission proposed a plan to create the National Reserve Association with

Representative Nelson Aldrich (R-Rhode Island) as chair. But Aldrich’s plan was criticized for giving too much power to bankers and too little control to the government. Although his plan was never implemented, it sparked a debate advocating a new central bank for the United States — the Federal Reserve System.⁴

Getting Started

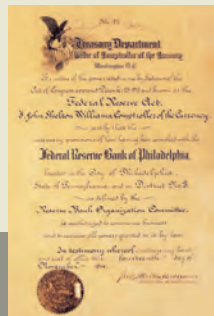
Several plans were introduced in Congress, including proposals by Henry Parker Willis, the expert adviser from the House Committee on Banking and Finance and a professor at Washington and Lee University; Senator Robert L. Owen (D-Oklahoma); and Representative Carter Glass (D-Virginia). Glass proposed a plan similar to Aldrich’s in that he wanted little governmental control, but the big difference was that Glass advocated a system of regional reserve banks.

The proposal unleashed heated debates about how much power bankers and government should wield. President Wilson also believed in a more balanced solution: The plan needed some agency



Woodrow Wilson enters the White House as the 28th President of the United States.

1913



The Federal Reserve Act is passed by Congress and signed later the same day by President Woodrow Wilson.

1913



The 12 Federal Reserve Banks open for business; Charles Hamlin becomes the first Chair of the Federal Reserve and serves until 1916.

1914



The average U.S. inflation rate is 1%.

1914

World War I creates difficult economic conditions, but the Federal Reserve System takes an active role in marketing war debt to banks and the general public to raise funds for the war effort.

1914-18

PANIC AND CRISES

The Knickerbocker Trust Company, the second largest of its kind in New York, failed in October 1907, which led to runs on other trust companies. Knickerbocker did not have enough cash on hand to meet depositors' demand for withdrawals. Since there was no deposit insurance in 1907 and no **lender of last resort** to turn to, the run triggered a panic that launched hundreds of bank failures, a significant decrease in the **money supply**, and a deep recession. Financier J.P. Morgan formed a syndicate with his fellow bankers to put sufficient liquidity into the economy to quell the panic. Congress then set up a federal commission to study the economy, which led to the creation of the Federal Reserve System in 1913.

But before the Federal Reserve System was established, the United States faced another crisis in July 1914. European investors, who owned more than 20 percent of American railroad stocks, started to sell these assets to secure a flow of gold to Europe to help pay for World War I. This selloff put a serious drain on the U.S. gold supply, weakening the gold-backed dollar and making it hard for the U.S. to maintain the gold standard. Although Treasury Secretary William McAdoo tried to push for the Federal Reserve Banks to open early, his attempt was thwarted. So he moved to close Wall Street to curb British sales of American securities. The stock market closed on July 31, 1914, and reopened on December 12.

oversight; he favored a central board. To supervise the banking industry, a Federal Reserve Board would have presidential-appointed members; to give bankers a voice, Wilson's Federal Advisory Council proposed that the regional reserve banks would elect 12 bankers who would meet with the Board

intermittently. After many refinements, the bill sponsored by Glass finally won approval from both the House and the Senate on December 23, 1913, and President Woodrow Wilson signed the bill into law that day, creating the Federal Reserve System.⁵ The preamble of the legislation outlined two critical



William Harding becomes the second Chair of the Federal Reserve and serves until 1922.

1916



Warren Harding enters the White House as the 29th President of the United States.

1921



The average U.S. inflation rate falls to negative double digits at -10.5%, signaling a period of deflation.

1921



Calvin Coolidge is sworn in as the 30th President of the United States.

1923

Daniel Crissinger becomes the third Chair of the Federal Reserve and serves until 1927.

1923

functions for the Federal Reserve: to furnish an elastic currency and to establish more effective supervision of the nation's banking industry.

The Federal Reserve Act, in part, directed the Secretary of the Treasury, the Secretary of Agriculture, and the Comptroller of the Currency to form the Reserve Bank Organization Committee and divide the nation into no fewer than eight and no more than 12 Federal Reserve Districts.⁶ The committee was also charged with deciding which cities would hold a Federal Reserve Bank, how the geographic boundaries of each Federal Reserve District would be defined, and how the organization of the Reserve Banks would be supervised.

Between January and mid-February 1914, the committee held meetings in 18 U.S. cities. At each of these meetings, local businessmen, bankers, farmers, and others explained why their city or state was the best spot for a Reserve Bank. The committee submitted its final report to Congress in April 1914, listing the cities it had selected.⁷ The committee considered several factors in choosing these locations, including the availability of an efficient

and reliable communications and transportation network, the financial health of the banks in that location, and the probability that a Reserve Bank at that site could meet the business demands of the region.⁸

The Federal Reserve Act also created a Federal Reserve Board in Washington, D.C., designed to oversee the operations of the 12 Reserve Banks. Originally, the Board consisted of seven members, including the Secretary of the Treasury and the Comptroller of the Currency, both of whom served *ex officio*, and five members who were appointed by the President of the United States and confirmed by the Senate.⁹

On November 16, 1914, nearly one year after President Wilson signed the Federal Reserve Act, all 12 regional Reserve Banks opened for business. Each Reserve Bank was required to have a nine-member board of directors divided into Class A, Class B, and Class C directors. Federal Reserve *member banks* were responsible for electing three Class A directors to represent the banking industry and three Class B directors to represent the public. The Federal



Roy Young becomes the fourth Chair of the Federal Reserve and serves until 1930.

1927



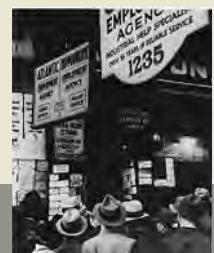
Herbert Hoover enters the White House as the 31st President of the United States.

1929



The Black Tuesday Wall Street Crash sends the world into an economic panic.

1929



The Great Depression: U.S. unemployment reaches 25%, international trade drops more than 50%, thousands of banks and other businesses fail, and tax revenue to the federal government drops dramatically.

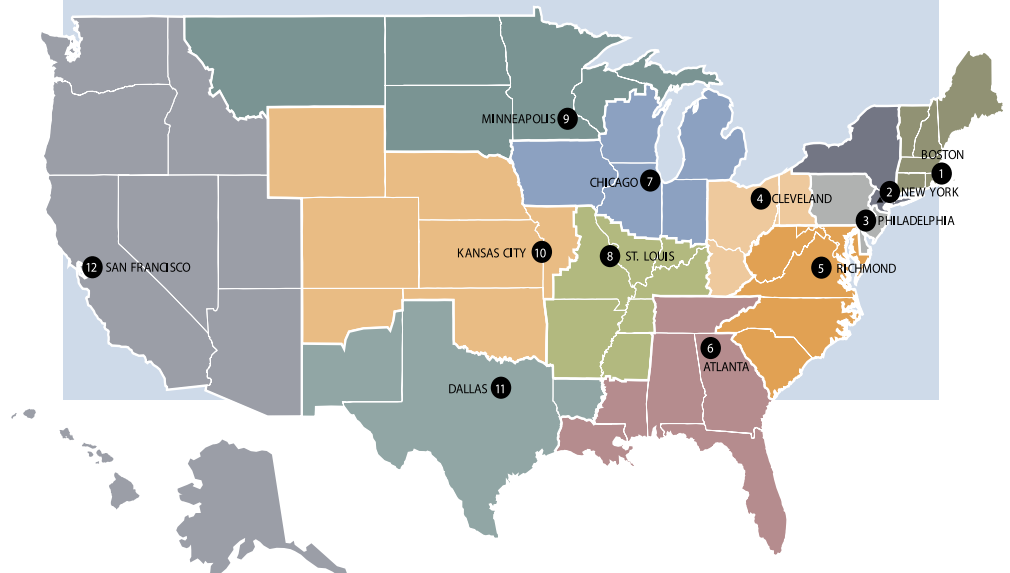
1929-39

Reserve Board (now called the Board of Governors) was charged with appointing three Class C directors to represent the public, including a chairman and deputy chairman for each Reserve Bank's board of directors.¹⁰

As with the First and Second Banks, the Federal Reserve Banks were given 20-year charters. However, people saw positive changes in the nation's economy within the first 14 years after the Federal Reserve was created: The economy was rebounding, interest rates were stable, financial institutions were stronger, recessions had been short-lived, recoveries were swift, and gold reserves were on the upswing. Since politicians, businessmen, and bankers advocated an extension of the

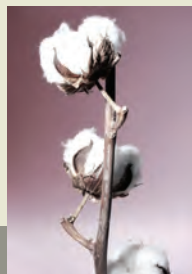
MAP OF THE FEDERAL RESERVE BANK LOCATIONS

The Federal Reserve Board (later called the Board of Governors) originally had no authority to force Reserve Banks to open branches. However, the Board sponsored an amendment to the Federal Reserve Act that took effect on June 21, 1917, stating that the "Federal Reserve Board may permit or require any Federal Reserve Bank to establish branch banks within the Federal Reserve district in which it is located." Today, the 12 Districts have 24 branch offices: Atlanta (Birmingham, AL; Jacksonville, FL; Miami; Nashville, TN; New Orleans), Chicago (Detroit), Cleveland (Cincinnati; Pittsburgh), Dallas (El Paso, TX; Houston; San Antonio), Kansas City (Denver; Oklahoma City; Omaha, NE), Minneapolis (Helena, MT), Richmond (Baltimore; Charlotte, NC), San Francisco (Los Angeles; Portland, OR; Salt Lake City; Seattle), and St. Louis (Little Rock, AR; Louisville, KY; Memphis, TN).



Eugene Meyer becomes the fifth Chair of the Federal Reserve and serves until 1933.

1930



The Grain Stabilization Corporation and the Cotton Stabilization Corporation are created to keep farm prices steady.

1930



The country enters a period of deflation as the price level falls by nearly -10% during the Great Depression.

1931-32

The Reconstruction Finance Corporation Act is enacted to provide loans to banks, financial institutions, and railroads.

1932



Franklin D. Roosevelt enters the White House as the 32nd President of the United States.

1933

Fed's original charter, the McFadden Act of 1927 officially removed the 20-year limit on the Reserve Banks' charter.¹¹ In effect, this provision prevented the central bank from getting embroiled in a political battle over the issue of renewing its charter, a fight that had ended badly for both previous central banks.

The Early Years

In the late 1910s and early 1920s, several Federal Reserve Banks began opening Branch offices in their respective Districts. The board of directors at each Branch was responsible for supplying information on the District's local economic conditions to the Reserve Bank's board of directors. These Branches were also designed to help the Fed handle functions related to payment systems, including clearing checks and distributing cash.

Economic prosperity and a rising stock market were two hallmarks of the Roaring Twenties, despite the decade's three short-lived recessions. People started to invest in the stock market; some even invested their life savings. Middle-class and

wealthier households were prospering from what seemed to be a welcomed economic boom. Many believed that the economic problems of the past 75 years had finally come to an end, but not everyone shared in this economic prosperity.¹² During the 1920s, grain and cotton prices plummeted, causing many farmers to default on their mortgages. In reaction, the banks holding the mortgages on these troubled farms started to fail, and the number of defaults continued to accelerate.¹³ The Fed continued its *accommodative monetary policy* throughout 1927, maintaining its policy to increase the money supply to make credit easier to obtain. Then in 1928, the Fed made a move and started to raise interest rates. This policy change proved to be too little too late and further aggravated the economic situation by slowing down an already wavering economy.¹⁴ By 1929, the troubled economy took a turn for the worse: The stock market crashed, deepening the crisis and causing economic repercussions that were felt worldwide.

By 1930, the United States was embroiled in the *Great Depression*, a profound financial crisis that



Congress passes the Emergency Banking Act to supply emergency money to banks that reopened after a four-day bank closure nationwide.

1933



The Banking Act of 1933, or the Glass-Steagall Act, stems deflation and separates the activities of commercial banks and securities firms.

1933

The Federal Deposit Insurance Corporation (FDIC) emerged as an important provision of the Banking Act of 1933 to insure bank deposits via funds collected from banks.

1933



Eugene Black becomes the sixth Chair of the Federal Reserve and serves until 1934.

1933

The Securities Act is passed, ensuring that investors receive financial information on securities offered for public sale and protection against fraud in security sales.

1933



Inside the Board of Governors

The Board has a wide range of responsibilities and duties: It oversees the 12 Federal Reserve Banks, sets depository reserve requirements and approves requests for discount rate changes made by the Fed Banks, issues regulations on consumer protection and financial safety and soundness, and leads the Fed in supervising and regulating bank holding companies, as well as the domestic and foreign operations of financial holding companies and state-chartered banks that are members of the Fed System.

The Board's seven Governors, who represent the public sector, are appointed by the President of the United States; the Senate confirms the appointments. The President also appoints the Chair and the Vice Chair, who are confirmed by the Senate to serve four-year terms. The Governors serve 14-year terms to insulate them from short-term political pressures and to provide a long-term perspective on the economy and financial system.



The Security Exchange Act of 1934 is passed, creating the Securities and Exchange Commission to protect investors, regulate markets, and expedite capital formation.

1934

The Gold Reserve Act passes, requiring all gold and gold certificates held by the Federal Reserve to be surrendered to and vested in the U.S. Department of the Treasury.

1934

Marriner Eccles becomes the seventh Chair of the Federal Reserve and serves until 1948.

1934

President Franklin D. Roosevelt signs the Social Security Act to protect senior citizens.

1935

The Banking Act of 1935 makes the FDIC a permanent government agency and calls for changes in the Federal Reserve's structure, including voting rights for the Federal Reserve Board.

1935

THE GREAT DEPRESSION

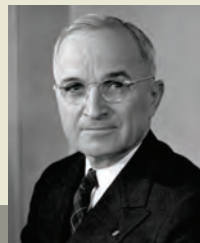
lingered for a decade. Just months before the stock market crashed on October 29, 1929, better known as Black Tuesday, Herbert Hoover had started his term as the 31st President of the United States. One of his first attempts to stimulate the economy was by urging Congress to pass the Reconstruction Finance Corporation (RFC) Act of 1932. The RFC was designed to provide loans to banks and other financial institutions in need, including insurance companies, as well as to lend funds to railroads, many of which could not meet their bond payments.¹⁵ Hoover also set up a series of other programs to help the troubled economy, including plans to help farmers prevent foreclosure, reforms for the banking industry, and other measures. The Hoover administration also established the Grain Stabilization Corporation and the Cotton

Americans braced themselves for hard times beginning in 1929. But little did they know, those hard times would last for more than a decade. By 1933, more than 11 million people (25 percent) were unemployed in the U.S. Government-sponsored programs put many to work, eventually generating such national landmarks as the Empire State Building and the Golden Gate Bridge. Former Fed Chair Ben Bernanke acknowledged the role the Federal Reserve played in what he called “the worst economic disaster in American history.” Fed leaders during the Depression had disagreed on the best course of action, and many of their ideas were deemed too little too late. But these failings helped Congress initiate numerous reforms, making the Federal Reserve more responsive to changing economic conditions.



Stabilization Corporation in 1930 in an effort to keep agricultural prices steady.¹⁶

Although many economic factors contributed to the Great Depression, the collapse of the banking



World War II spreads throughout Europe, North Africa, and the South Pacific.

The average U.S. inflation rate climbs to 10.9%.

Harry S. Truman enters the White House as the 33rd President of the United States.

Congress passes the Employment Act of 1946 that created the Council of Economic Advisers, a board that counsels the President on economic policy.

The average U.S. inflation rate hits 14.4%.

1939-45

1942

1945

1946

1947

system was one of the biggest. By the early 1930s, 9,000 banks failed in the United States. These bank failures caused the *money supply* to tighten, which, in turn, spurred a decline in spending on goods and services. As spending dropped, firms lowered prices and laid off workers. And the downward spiral continued: Workers' incomes declined, households were pressed to repay loans, and many defaulted. As a result, the number of bankruptcies increased dramatically.¹⁷

Trust in banks vanished. People were scared; many withdrew their savings and hoarded as much cash as they could to avoid losing their savings in one of the many failing financial institutions. The cycle continued: As people started to hoard currency, *bank reserves* plunged, and the dwindling reserves triggered tighter credit. Banks had less money to lend, and the limitations on credit further reduced the money supply.

Many people felt that Hoover didn't roll out enough measures or implement them fast enough to slow the rising tide of bank failures and unemployment. Consequently, voters decided it

was time for a change. Hoover lost the presidential election in November 1932, and Franklin D. Roosevelt was elected to the White House.

One of the first measures Roosevelt took in March 1933 was to declare a "bank holiday." He closed all banks nationwide for four business days, from Monday, March 6, until Thursday, March 9. He then extended the suspension of banking activity

Raising the Bar

The Federal Reserve System doesn't own any gold; it turned over its gold to the Department of the Treasury with the passage of the Gold Reserve Act of 1934. In return, the Secretary of the Treasury issued gold certificates to the Fed for the amount of gold that was transferred at the statutory price for gold at the time. However, the Federal Reserve Bank of New York acts as a custodian for the gold of account holders, including the U.S. government, foreign governments, other central banks, and official global organizations.



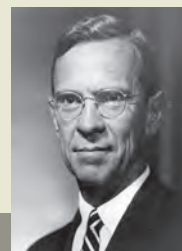
Thomas B. McCabe becomes the eighth Chair of the Federal Reserve and serves until 1951.

1948



The United States is embroiled in the Korean War.

1950-53



The Treasury-Federal Reserve Accord declares the Fed's independence in conducting monetary policy.

1951

William M. Martin becomes the ninth Chair of the Federal Reserve and serves until 1970.

1951



The average U.S. inflation rate is 1.9%.

1952

to Monday, March 13. When Congress passed the Emergency Banking Act on March 9, the goal was to stave off the run on banks in hopes that people would stop panicking. The Federal Reserve also agreed to supply an unlimited amount of emergency money to those banks that reopened after the bank holiday.¹⁸

These measures succeeded in restoring the public's confidence in banks. By the end of March 1933, two-thirds of the money that had been withdrawn during the various bank runs and panics had been redeposited in the nation's banks, and the stock market rebounded with the largest uptick in one day of 15.34 percent.¹⁹

Despite its efforts to work with the Hoover and Roosevelt administrations, the Fed was criticized for not responding aggressively to the Depression. In fact, many critics contend that the Fed contributed to the economic downturn by acting too slowly in easing monetary policy. Because the Fed continued its tight monetary policy for too long, prices started to fall, ushering in widespread *deflation*.

The Fed also failed to protect the stability of the nation's financial system. Thousands of banks

permanently closed their doors, and people lost their savings since there was no deposit insurance. Fewer banks and fewer loans meant less available credit. So, business activity dropped, inventories accumulated on shelves and in warehouses, and unemployment escalated.²⁰

Congress passed many important pieces of legislation related to the economic health of the country in the 1930s in response to the Great Depression, including the Banking Act of 1933 and the Banking Act of 1935. The Banking Act of 1933 created the Federal Deposit Insurance Corporation (FDIC) as a temporary government agency with the authority to provide deposit insurance to banks, originally insuring bank deposits up to \$2,500. This act, known as the Glass-Steagall Act, also separated investment banking activities from commercial banking. For the Federal Reserve, this law also gave the Federal Reserve Board the responsibility for supervising bank holding companies, as well as creating the Federal Open Market Committee (FOMC). Although the Federal Reserve had set up an Open Market Investment Committee in 1923, the



Dwight D. Eisenhower enters the White House as the 34th President of the United States.

1953

The United States enters the conflict in Vietnam.

1955



The Bank Holding Company Act of 1956 gives the Fed broader regulatory powers over bank holding companies.

1956

Karl R. Bopp is named president of the Philadelphia Fed, becoming one of the first professional economists to lead a Reserve Bank.

1958

INFLATION
2.8%

The average U.S. inflation rate is 2.8%.

1958



John F. Kennedy enters the White House as the 35th President of the United States.

1961

Inside the Federal Open Market Committee

The Federal Open Market Committee (FOMC) is the Federal Reserve System's main body for making monetary policy decisions. Congress reaffirmed the decentralized structure of the Federal Reserve in the Banking Act of 1935 when it restructured the FOMC. Congress gave voting rights on the FOMC to the seven Governors in Washington, D.C., as well as five of the 12 presidents of the regional Reserve Banks. The president of the New York Fed always votes (since the Open Market Trading Desk operates within its District; the Open Market Trading Desk conducts daily open market operations — buying/selling U.S. government securities on the open market — as needed to attain the federal funds rate target), along with four presidents from the other Reserve Banks who vote on a rotating basis; this rotation confirms that voting members always come from different parts of the country. The seven Governors ensure that the Board retains the majority of votes on the FOMC, but all 12 Reserve Bank presidents participate in discussions at the FOMC meetings.



Reserve Banks were not obligated to carry out the Committee's recommendations. One Reserve Bank could be selling Treasuries while another one was buying them.²¹

Two years later, the Banking Act of 1935 further defined the role of the FOMC, giving the

Committee its current structure: seven Governors at the Board in Washington, D.C., and five of the 12 Reserve Bank presidents. One of the voting members is always the president of the New York Fed; the other four presidents serve one-year terms on a rotating basis.²² The Reserve Banks are



After John F. Kennedy is assassinated, Lyndon B. Johnson is sworn in as the 36th President of the United States.

1963



The Truth in Lending Act offers consumer protection by requiring lenders to disclose the cost of borrowing funds.

1968



Richard M. Nixon becomes the 37th President of the United States.

1969

Arthur Burns becomes the 10th Chair of the Federal Reserve and serves until 1978.

1970

INFLATION
5.7%

The average U.S. inflation rate is 5.7%.

1970



Gerald R. Ford enters the White House as the 38th President of the United States.

1974

Fed Facts

Funds for the Fed's operations come from income on its holdings of U.S. government securities and fees from services it provides to financial institutions. After paying its expenses, the Fed typically remits 90 percent of its earnings to the U.S. Treasury.



required to carry out the directions of the FOMC, whose *open market operations* are centralized at the Open Market Trading Desk at the New York Fed.²³ The 1935 law also changed the title of Reserve Bank heads from governor to president and removed the Comptroller of the Currency and the Secretary of the Treasury from their positions on the Federal Reserve Board. The Banking Act of 1935 also made the FDIC a permanent government agency and increased the maximum amount of insured deposits to \$5,000.²⁴

The Outbreak of War

The advent of World War II finally carried the American economy out of the Depression. Manufacturing armaments and other goods needed for the war kept the economy buzzing into the early to mid-1940s. During this period, the Federal Reserve acted at the Treasury's request to keep interest rates low to help finance the war. But after World War II ended in 1945, the Treasury still wanted the Fed to continue to keep interest rates low.²⁵

From the start, the Federal Reserve Act was not specifically designated to set goals for monetary policy; instead, the Fed was required to furnish an "elastic currency." So, in essence, the Fed's early role was to safeguard the economy by preventing financial panics and bank runs that afflicted the economy in the 19th century. It served as a *lender of last resort* to make loans directly to depository institutions through the *discount windows* of the Reserve Banks.²⁶

The devastating aftereffects of the Great Depression, along with the insights of economist



The Equal Credit Opportunity Act extends protection against discrimination in consumer and business lending.

1974



James E. "Jimmy" Carter Jr. takes the oath of office as the 39th President of the United States.

The Federal Reserve Reform Act of 1977 is passed.

1977 | 1977

The Community Reinvestment Act (CRA) is passed, encouraging banks to meet the credit needs of all community sectors.

1977



G. William Miller becomes the 11th Chair of the Federal Reserve and serves until 1979.

1978

The Electronic Fund Transfer Act safeguards electronic financial transactions for consumers.

1978

John Maynard Keynes, provided incentives for the central bank to do more to guard the nation against *recessions*. The Employment Act of 1946 was the first legislative acknowledgment of such macroeconomic policy goals. Although the act did not single out the Federal Reserve, it mandated that the federal government needed to foster “conditions under which there will be afforded useful employment ... for those able, willing, and seeking to work, and to promote maximum employment, production, and purchasing power.”²⁷

Americans were eager to move ahead after World War II. Pent-up demand for consumer products spurred a period of rapid economic growth. The nation’s productive capacity, which had been expanded substantially during World War II, was converted to peacetime production of goods and services to satisfy growing consumer demand.

In 1950, the Treasury urged the Fed to maintain low rates at the start of the Korean War. But the central bank was reluctant to do so, starting a debate that lingered for about a year. Then in 1951, the two parties finally signed the Treasury-Fed Accord,

which acknowledged the Fed’s independence in setting monetary policy.²⁸

By 1953, the nation entered another recession, primarily a result of issues stemming from the Korean War. Once recovery was well underway, the Fed shifted its policy and raised interest rates above 3 percent to restrain inflation. But its actions were not fast enough, and the inflation rate reached nearly 4 percent. When a second recession took hold in mid-1957 and unemployment escalated, the Fed responded quickly this time, sharply lowering interest rates to spur spending and employment.²⁹

The Age of the Consumer

The 1960s ushered in more changes for the nation, from miniskirts to Vietnam and from the assassinations of President John F. Kennedy, civil rights leader Martin Luther King Jr., and Senator Robert F. Kennedy to astronaut Neil Armstrong taking his first steps on the moon. It was a time of change.

Congress passed several important consumer protection laws during this decade under the umbrella of the Consumer Credit Protection Act



The Full Employment and Balanced Growth Act (commonly known as the Humphrey-Hawkins Act) passes, requiring the Federal Reserve to provide Congress with a semiannual report on the Fed’s objectives and plans for monetary policy.

1978



Paul Volcker becomes the 12th Chair of the Federal Reserve and serves until 1987.

1979

The Depository Institutions Deregulation and Monetary Control Act is enacted to expedite the implementation of monetary policy, to gradually eliminate all limitations on interest rates payable on deposits and accounts, and to authorize interest-bearing transaction accounts.

1980



The average U.S. inflation rate climbs to 13.5%.

1980

(CCPA) of 1969, regulating consumer transactions that began with the Truth in Lending Act (TILA) in 1968, which requires lenders to disclose the cost of borrowing to consumers. The CCPA includes the TILA, as well as the Equal Credit Opportunity Act (prohibiting discrimination during credit transactions on the basis of race, religion, sex, age, marital status, or national origin), the Fair Credit Billing Act (requiring a credit card company to credit payments and correct billing errors without damaging a consumer’s credit score), the Fair Credit and Charge Card Disclosure Act (requiring a credit card company to disclose the terms of the card, such as the APR, annual fees, and interest-free periods for payment before interest charges are assessed).³⁰

By the 1970s, high inflation and high unemployment plagued the nation. Inflation climbed to about 6 percent at the start of the decade and declined only slightly during and after the recession in 1970. With inflation still above 4 percent by mid-1971, President Richard Nixon issued wage and price controls that suppressed inflation for a time, but ultimately, they didn’t work. The

Fed tightened monetary policy when inflation rebounded after the end of the wage and price controls and the jump in oil prices during 1973–1974.

Amid the social and political turbulence of the 1970s, marked by the Watergate break-in, the Arab oil embargo, and President Nixon’s resignation, inflation soared to 12 percent in 1974. The nation faced another recession during 1974–1975, and inflation rates fell during and after the recession. The Fed eased monetary policy in 1974, and the federal funds rate fell below 5 percent in early 1976. The shift in its monetary policy target changed from an interest rate target to a target for the growth rate of the *M1* money supply (coins, paper currency, traveler’s checks, and all deposits in banks and savings institutions on which checks can be written). The Fed’s monetary policy goals were unchanged: to pursue price stability and full employment. But the Fed’s monetary policy remained expansionary in the 1970s, and the Fed’s stated anti-inflation policy lost credibility.³¹

Congress continued its consumer-protection initiatives with the Equal Credit Opportunity Act (ECOA) in 1974, which combats discrimination in



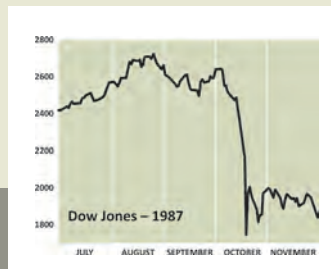
Ronald W. Reagan becomes the 40th President of the United States.

1981



The Garn-St Germain Depository Institutions Act is passed to strengthen the financial stability of home mortgage lending institutions and to ensure the availability of home mortgage loans.

1982



Alan Greenspan becomes the 13th Chair of the Federal Reserve and serves until 2006 (the longest term as Chair).

1987



The stock market crashes on Black Monday.

1987

George H. W. Bush enters the White House as the 41st President of the United States.

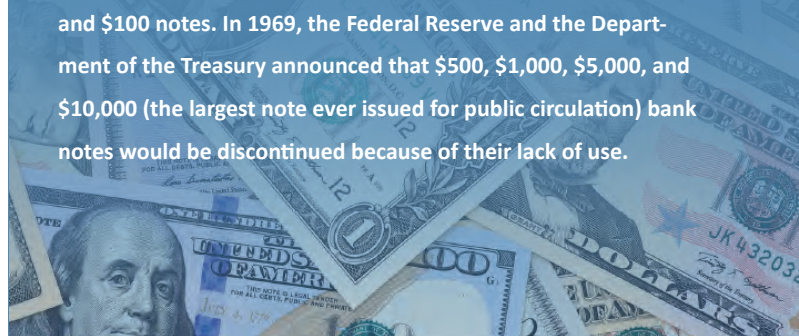
1989

consumer and business lending, and the Electronic Fund Transfer Act (EFTA) in 1978, which provides consumer protection during electronic financial transactions. Congress further directed the Federal Reserve to write regulations to allow for the implementation of these laws. In response, the Fed wrote Regulation Z to implement the TILA, Regulation B for the ECOA, and Regulation E for the EFTA, which provided additional guidelines and specifications.³²

In 1977, Congress passed the Community Reinvestment Act (CRA), which encourages banks to meet the credit needs of all segments in their communities. The Fed's Regulation BB implements the CRA for state member banks. The Federal Reserve also established a community affairs function at the Board of Governors and at each of the Reserve Banks. The aim of these departments was to support the Federal Reserve System's economic growth objectives by promoting community development in low- and moderate-income areas and to ensure fair and impartial access to credit in underserved markets.³³

MONEY, MONEY, MONEY

Of the roughly \$1.29 trillion in circulation as of October 2014, \$1.25 trillion was in Federal Reserve Notes. A note's life span actually varies by denomination: Smaller bills that are used frequently, such as the \$1 note, are expected to last 5.9 years, whereas a \$100 note can be circulated for about 15 years. Today, the Federal Reserve Board issues \$1, \$2, \$5, \$10, \$20, \$50, and \$100 notes. In 1969, the Federal Reserve and the Department of the Treasury announced that \$500, \$1,000, \$5,000, and \$10,000 (the largest note ever issued for public circulation) bank notes would be discontinued because of their lack of use.



Congress also passed the Full Employment and Balanced Growth Act of 1978, otherwise known as the Humphrey-Hawkins Act, which expanded the goals of the Employment Act of 1946. In addition to setting the Fed's mission to promote "full employment and production" and "reasonable price stability," the Humphrey-Hawkins Act also required the Federal Reserve's Chairman to testify before

INFLATION
5.4%



The average U.S. inflation rate is 5.4%.

The Federal Deposit Insurance Corporation Improvement Act of 1991 is passed, implementing the safety and soundness of the banking industry.

William J. Clinton is sworn in as the 42nd President of the United States.

The Riegle-Neal Interstate Banking and Branching Efficiency Act of 1994 is passed, modifying the Bank Holding Company Act of 1956, the revised statutes of the United States, and the Federal Deposit Insurance Act for interstate banking and branching.

1990

1991

1993

1994

Congress twice a year about the Fed’s objectives and its plans for monetary policy.³⁴ Today, the Federal Reserve Chair still testifies before both the House and the Senate at least twice a year.

Although the economy was expanding during the rest of the decade, the nation faced more unrest. Oil prices increased several times when oil exports to the United States dropped amid the revolution in Iran, and inflation climbed to 14 percent in 1979.

That was the year President Jimmy Carter appointed Paul Volcker as Chairman of the Federal Reserve Board of Governors. Volcker took decisive actions to reduce inflation rates. Like many economists, Volcker believed that inflation is basically a monetary phenomenon that occurs when the money supply grows faster than output over a period of time. So rather than targeting a short-term interest rate, the Federal Reserve under Chairman Volcker focused on controlling the growth of the money supply.³⁵ Although this action led to higher interest rates, it succeeded in reducing inflation. Over time, interest rates dropped as well.

Against this fluctuating economic backdrop, the

Monetary Control Act (MCA) of 1980 changed the way the Fed provided services. Before this legislation was passed, the Fed had provided many services, such as check cashing, free of charge to member banks. The law mandated that the Federal Reserve should offer payment services not only to member banks but also to any depository institution that wanted to use them and to charge all institutions (both member and nonmember banks) for the services an amount sufficient to cover the cost of providing the service; the law also granted depository institutions subject to reserve requirements equal access to discount window lending. The MCA also changed the legal requirement for banks in regard to maintaining reserves with the Fed. Prior to the passage of the law, only member banks were required to maintain reserves, which made them less competitive with nonmember banks because funds held on reserve with the Fed cannot be lent out. The MCA now required all banks to maintain reserves with the Fed.³⁶

The 1980s also began with a rough start as the U.S. unemployment rate climbed to 10.4 percent in



TOO BIG TO FAIL

The financial woes of some of the biggest financial institutions made front-page headlines in 2008. The investment bank Lehman Brothers declared bankruptcy; JPMorgan Chase acquired investment bank Bear Stearns, which was having trouble meeting its obligations; AIG (American International Group), a global financial services company, was unable to post collateral on its debts; Citigroup faced mounting losses in its portfolio; and Bank of America was dealing with the mortgage-related assets it assumed after acquiring Merrill Lynch.

As these institutions faced escalating financial difficulties, each received help from the Federal Reserve. The Fed wanted to take steps to alleviate additional pressure exerted on the economy after the subprime mortgage crisis of 2007. Though some of these financial institutions were not the commercial banks to which the Federal Reserve usually provides support, they were firms whose failure would have had a drastic effect on the economy. The Federal Reserve extended credit and loans, assisted in acquisitions, or brokered financial arrangements to keep these companies afloat.

To help stabilize the economy, the Fed also lowered short- and long-term interest rates and bought long-term Treasury bonds and mortgage-backed securities that had been used to fund prime mortgages. But some critics viewed the bailouts as a safety net for these so-called “*too-big-to-fail*” firms, which, if left to their own devices, could take more risks knowing that they would receive financial help if needed. Former Fed Chair Alan Greenspan advocated the breakup of such big players: “If they’re too big to fail, they’re too big.”

In 2010, former Fed Chair Ben Bernanke noted that governments provide support to the firms in a crisis “because they recognize that the consequences for the broader economy of allowing a disorderly failure greatly outweigh the costs of avoiding the failure in some way.”

Though Section 13(3) of the original Federal Reserve Act allowed the Board of Governors to authorize the Reserve Banks to extend credit to individuals, partnerships, and corporations in “unusual and exigent circumstances,” the Dodd-Frank Wall Street Reform and Consumer Protection Act of 2010 changed the playing field. It stipulated further safeguards and conditions before the Fed could extend loans or credit to ailing companies, adding “broad-based eligibility” and prior approval of the secretary of the Treasury, among other criteria.



The United States sends troops to Iraq.

2003

The Check Clearing for the 21st Century Act is passed, streamlining the electronic check-cashing process.

2003

Ben Bernanke becomes the 14th Chair of the Federal Reserve and serves until 2014.

2006

The Great Recession begins amid the subprime mortgage crisis.

2007

Barack H. Obama enters the White House as the 44th President of the United States.

2009

Women of the Fed

Janet L. Yellen made history on February 3, 2014, when she started her term as the first woman Chair of the Federal Reserve System, following in the footsteps of former Chairs Ben Bernanke, Alan Greenspan, Paul Volcker, and others. Her four-year term, which includes being Chair of the Federal Open Market Committee (FOMC), will continue until February 3, 2018. Yellen had been the Board's Vice Chair since 2010, when she also became a Board member; her term will expire in 2024. Before joining the Fed, she taught at the University of California at Berkeley and at Harvard University and was on the faculty of the London School of Economics and Political Science. She was also president and CEO of the Federal Reserve Bank of San Francisco from 2004 to 2010.

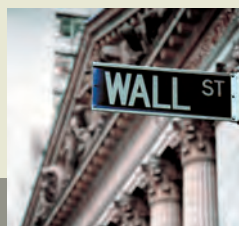
Alice M. Rivlin was Vice Chair of the Board of Governors from 1996 to 1999. Prior to joining the Board, she worked in government, academia, and nonprofit organizations; she was also the founding director of the Congressional Budget Office.

Karen N. Horn became the president of the Federal Reserve Bank of Cleveland (1982–1987) and the first woman president of a Reserve Bank in the history of the Federal Reserve System.

Nancy H. Teeters was the first woman to join the Fed's Board of Governors (1978–1984). Her work with the Board started in 1957, when she joined the Division of Research and Statistics; she was also a staff economist in the division's government finance section.

1982. But President Ronald Reagan's 1981 tax cut legislation, the largest in history, was designed to offer some relief, lowering taxes by \$750 billion during the next five years. Volcker remained Fed Chair until 1987 when Alan Greenspan took over. The new Chairman faced a challenge in his first months when the New York Stock Exchange recorded the largest drop in a single day of 22.6 percent.³⁷

The banking industry felt the beginnings of deregulation by the 1990s. The Riegle-Neal Interstate Banking and Branching Efficiency Act of 1994 allowed banks to set up branches in other states. The Financial Services Modernization Act of 1999, also called the Gramm-Leach-Bliley (GLB) Act, repealed the requirement that investment and commercial banking be separate, a provision that was set forth in the Glass-Steagall Act of 1933.



The Dodd-Frank Wall Street Reform and Consumer Protection Act of 2010 is passed, mandating financial reform of practices and in several changes to Fed functionality.

2010

INFLATION
1.5%

The Real Estate Settlement Procedures Act is passed, ensuring that consumers are provided with information about the cost of mortgage settlements and protection from abusive practices.

2013



The average U.S. inflation rate is 1.5%.

2013

The Federal Reserve System commemorates 100 years as the bankers' bank for the United States.




2013




Janet Yellen steps in as the 15th Chair of the Federal Reserve.

2014

COMPARING U.S. CENTRAL BANKS

	1791-1811	1816-1836	1913-Present
	First Bank of the United States	Second Bank of the United States	Federal Reserve System
			
Supervisory Duties	No	No	Yes
Monetary Policy	No, but it was large enough to affect credit conditions nationwide.	No, but it was large enough to affect credit conditions nationwide.	Yes, but in the early years, the Fed did not conduct monetary policy as we know it today.
Branches	Yes	Yes	Yes
20-Year Charter	Yes, but the charter was not renewed.	Yes, but the charter was not renewed.	Yes, the Fed originally had a 20-year charter, but the McFadden Act of 1927 gave the central bank permanency.
Issues Currency	Yes	Yes	Yes
Stockholders	Yes, 20% was held by government; 80% by the public.	Yes, 20% was held by government; 80% by the public.	Yes, but only member banks hold stock, not the public.
Stock	Shares were publicly traded and held by foreign and domestic investors.	Shares were publicly traded and held by foreign and domestic investors.	Federal Reserve System member banks and state-chartered member banks buy nontradable stock in their District Reserve Bank; stock pays a fixed dividend of 6%.
Commercial Bank Operations	Yes, it accepted deposits from and made loans to the public.	Yes, it accepted deposits from and made loans to the public.	No, the Fed is a “bankers’ bank”; it makes loans only to banks and holds their deposits called reserves.
Competition with State Banks	Yes	Yes	None
Services to Federal Government	The bank served as the federal government’s fiscal agent, received its revenues, held its deposits, and made its payments.	The bank served as the federal government’s fiscal agent, received its revenues, held its deposits, and made its payments.	The Fed serves as the federal government’s fiscal agent, receives its revenues, holds its deposits, and makes its payments.



The GLB also allowed the creation of financial holding companies, which were allowed to engage in certain financial activities in addition to banking, including insurance, securities underwriting, and merchant banking. In 1996, Fed Chair Greenspan suggested that “irrational exuberance” may be causing the extraordinary upswing of stock prices, which continued as the Dow Jones Industrial Average passed the 10,000 mark for the first time.³⁸

Entering a New Era

The new millennium ushered in an era of terrorism. The attacks of September 11, 2001, stunned the nation. On 9/11 and days afterward, the Fed worked to maintain financial stability and kept the economy moving by pumping liquidity into U.S. financial markets. Federal Reserve operations continued throughout the crisis; the Fed worked to keep the payment systems and banking operations as close to normal as possible.

The 9/11 attacks also resulted in the grounding of all air transportation for several days. No flights meant that the Fed’s ability to move checks, which were often transported from one part of the country to another by air, was severely impaired. One of the ways that the Fed kept the financial system operational was to credit the accounts of the banks receiving check payments while waiting to debit the accounts of the paying banks until planes began flying again.³⁹

The Fed asked Congress to enact a law that would allow a substitute check — an image of the check rather than the original paper check — to be legally acceptable for collection and payment. As a result, Congress passed the Check Clearing for the 21st Century Act, commonly called Check 21, in 2003. This legislation, which went into effect in

October 2004, fundamentally changed the ways checks are cleared by banks. Prior to the law, checks had to be physically transported from the bank that received a check to the bank on which the check was written. But with Check 21, an electronic image was sent instead of the actual paper check.⁴⁰

The Fed also had to face other challenges during this decade, including the financial crisis and ensuing deep recession that started in 2007. Many people called this economic downturn the worst since the Great Depression, even calling the period the Great Recession. This time, the Fed took extraordinary steps in response to the crisis: It lowered short-term interest rates to near zero, established special lending programs, expanded traditional overnight loans through the discount window to 90 days, and supported credit markets through *open market purchases* of long-term securities for the Fed’s portfolio.⁴¹

Washington had its own response to the financial crisis. In July 2010, Congress passed the Dodd-Frank Wall Street Reform and Consumer Protection Act. While the main goal of the legislation was financial reform to address the practices that led to the crisis, the legislation also resulted in several changes for the Federal Reserve, three of which are particularly significant.⁴²

First, Congress expanded the Fed’s regulatory role by adding savings and loan holding companies to the Fed’s supervisory activities. Because nonbank companies contributed to the financial crisis, the Fed was also given supervisory authority for systemically important nonbank financial companies. Congress also created the Financial Stability Oversight Council (FSOC) to conduct surveillance and monitor risks to the financial system. The Fed is a member of the FSOC.

Second, Congress placed limits on the Fed's role under Section 13(3) of the Federal Reserve Act as lender of last resort in unusual and exigent circumstances. During the financial crisis leading up to the Great Recession, the Fed used this authority to make \$182 billion in loans to American International Group (AIG) to prevent AIG from filing for bankruptcy, which would have destabilized the global financial system because of the institution's size. However, the Dodd-Frank Act allows the Fed to use its emergency lending power to make a loan to one company as long as that loan is part of a larger program available to an entire sector or industry.

Finally, Congress transferred the Fed's authority to write regulations for most federal consumer protection laws to the newly created Consumer Financial Protection Bureau (CFPB). Although Dodd-Frank funds the CFPB through the Fed every year, the new bureau is independent of the Fed in terms of its decision-making authority. Congress created the bureau to consolidate most consumer protection regulatory authority for financial services into one agency. The CFPB ensures that banks with assets of more than \$10 billion and certain nonbank financial service providers, such as payday lenders, comply with consumer protection laws.⁴³



Living History

On December 16, 2013, more than 80 Federal Reserve Board officials gathered in Washington, D.C., to commemorate the signing of the Federal Reserve Act. Four Federal Reserve System Chairs whose service has spanned 35 years were on hand; from left to right, Janet Yellen (2014–present), the first woman to be appointed Chair; Alan Greenspan (1987–2006), Ben Bernanke (2006–2014), and Paul Volcker (1979–1987).

While rulemaking authority for most consumer protection laws was then transferred to the CFPB, authority for writing regulations for certain federal laws, including the CRA, the National Flood Insurance Act, and the Expedited Funds Availability Act, remains with the Fed and other existing federal agencies. And the Fed continues to be the consumer compliance regulator for state member banks with assets of less than \$10 billion. It also conducts limited consumer examinations of state member banks with assets of more than \$10 billion to ensure compliance with laws that the bureau doesn't cover in its examinations, such as the CRA and flood insurance.⁴⁴

100 Years Later

The Federal Reserve has undergone many transitions and weathered many economic storms since its founding in 1913. Along with these shifts in central bank operations, the economy evolved in many ways, the banking industry changed with the times, and the financial services offered today would be all but unrecognizable to our forebears.

But perhaps the most striking change in American central banking in the past 200 years is

the prominence to which it has risen. Unlike its predecessors, the Fed has weathered the political storms of its day. It insulated itself from partisan politics, but it is clearly accountable to Congress and the American people. Its centralized structure has kept it close to the economy on Main Streets throughout America. And that has made it ready to tackle the challenges to come as the Fed enters its second century of service as the nation's central bank.

ENDNOTES

¹ The terms in bold italic are explained in the Glossary on page 25.

² See the Federal Reserve Bank of Philadelphia, *The Second Bank of the United States: A Chapter in the History of Central Banking*, pp. 2–3.

³ See Kindleberger and Aliber, pp. 4–5, and Bordo and Haubrich, pp. 5–8.

⁴ See Aldrich, “Suggested Plan for Monetary Legislation,” Revised Edition, October 1911, FRASER, Federal Reserve Bank of St. Louis, fraser.stlouisfed.org/docs/historical/nmc/nmc_784_1911pt2.pdf, pp. 5–24.

⁵ Brief biographies of key players in the Federal Reserve Act's creation are included, beginning on page 26.

⁶ See FRASER, Federal Reserve Bank of St. Louis, “Reserve Bank Organization Committee,” fraser.stlouisfed.org/topics/?tid=14.

⁷ See Board of Governors of the Federal Reserve System, “Decision of the Reserve Bank Organization Committee Determining the Federal Reserve Districts and the Location of Federal Reserve Banks Under Federal Reserve Act, Approved December 23, 1913, April 2, 1914, with Statement of the Committee in Relation Thereto, April 10, 1914,” Organization Committee, U.S. Government Printing Office, 1914–Business & Economics, pp. 1–27. See additional information on page 5 of this booklet for details on the 12 cities chosen as the homes of the Federal Reserve Banks.

⁸ *Ibid.*

⁹ See Meltzer, *A History of the Federal Reserve, Vol. 1: 1913–1951*, pp. 73–74.

¹⁰ See Board of Governors of the Federal Reserve System, “The Structure of the Federal Reserve System: Board of Directors,” www.federalreserve.gov/pubs/frseries/frseri4.htm.

¹¹ See Meltzer, pp. 216–217.

¹² See Alan Brinkley, Interview, “The First Measured Century,” *The Great Depression* (Public Broadcasting Service, 2000), www.pbs.org/fmc/interviews/brinkley.htm.

¹³ See David C. Wheelock, “Regulation, Market Structure, and the Bank Failures of the Great Depression,” *Federal Reserve Bank of St. Louis Review*, March/April 1995, pp. 27–38.

¹⁴ See Ben S. Bernanke, Speech, “Asset Price ‘Bubbles’ and Monetary Policy,” New York Chapter of the National Association for Business Economics, New York, NY, October 15, 2002, www.federalreserve.gov/boarddocs/speeches/2002/20021015/default.htm.

¹⁵ See Michael Gou, Gary Richardson, Alejandro Komai, and Daniel Park, “Banking Acts of 1932,” 100 Years of the Federal Reserve System, www.federalreservehistory.org/Events/DetailView/12.

¹⁶ See Markham, pp. 216–217.

¹⁷ See Wheelock, pp. 27–29.

¹⁸ See Stephen Greene, “Emergency Banking Act of 1933,” Federal Reserve Bank of St. Louis, 100 Years of the Federal Reserve System, www.federalreservehistory.org/Events/detailview/23.

¹⁹ Ibid.

²⁰ See Bernanke, Interview, “The Federal Reserve in the Great Depression,” *The Fed and You* (video), www.philadelphiafed.org/education/federal-reserve-and-you/chapters.cfm?chapter=8.

²¹ See Meltzer, pp. 150–152.

²² See Meltzer, pp. 484–486.

²³ See Board of Governors of the Federal Reserve System, “What Is the FOMC and When Does It Meet?” www.federalreserve.gov/faqs/about_12844.htm.

²⁴ See Richardson, Komai, and Gou, “Banking Act of 1935,” 100 Years of the Federal Reserve System, www.federalreservehistory.org/Events/DetailView/26.

²⁵ See Daniel R. Sanches, “The Second World War and Its Aftermath: 1941 to 1951,” 100 Years of the Federal Reserve System, www.federalreservehistory.org/Period/Essay/11.

²⁶ See David C. Wheelock, “The Fed’s Formative Years,” Federal Reserve Bank of St. Louis, 100 Years of the Federal Reserve System, www.federalreservehistory.org/Period/Essay/9.

²⁷ See Aaron Steelman, “Employment Act of 1946,” Federal Reserve Bank of Richmond, 100 Years of the Federal Reserve System, www.federalreservehistory.org/Events/DetailView/15.

²⁸ See Allan Sproul, “The ‘Accord’ — A Landmark in the First Fifty Years of the Federal Reserve System,” *Monthly Review*, November 1964, Federal Reserve Bank of New York, pp. 227–236.

²⁹ See Robert L. Hetzel, “The Treasury-Fed Reserve Accord to the Mid-1960s, 1951–1965,” Federal Reserve Bank of Richmond, 100 Years of the Federal Reserve System, www.federalreservehistory.org/Period/Essay/12.

³⁰ See Board of Governors of the Federal Reserve System, “Consumer’s Guide, Credit Cards, Credit Protection Laws,” www.federalreserve.gov/creditcard/regs.html.

³¹ See Axilrod, pp. 75–76.

³² See Board of Governors of the Federal Reserve System, “Regulations,” www.federalreserve.gov/bankinforeg/reglisting.htm.

³³ See Board of Governors of the Federal Reserve System, “Community Reinvestment Act (CRA),” www.federalreserve.gov/communitydev/cra_about.htm.

³⁴ See Aaron Steelman, “Full Employment and Balanced Growth Act of 1978, Commonly Called Humphrey-Hawkins,” Federal Reserve Bank of Richmond (October 1978), 100 Years of the Federal Reserve System, www.federalreservehistory.org/Events/DetailView/39.

³⁵ See Paul Volcker, Interview, “The First Measured Century,” *Stagflation/Deregulation* (Public Broadcasting Service, 2000), www.pbs.org/fmc/interviews/volcker.htm.

³⁶ See Kenneth J. Robinson, “Depository Institutions Deregulation and Monetary Control Act of 1980, March 1980,” Federal Reserve Bank of Dallas, www.federalreservehistory.org/Events/DetailView/43.

³⁷ See Miner, pp. 110–112.

³⁸ See Shiller, *Irrational Exuberance*, pp. 1–10.

³⁹ See Roger W. Ferguson Jr., Speech, Vanderbilt University, Nashville, TN, February 5, 2003, Federal Reserve Board, www.federalreserve.gov/boarddocs/speeches/2003/20030205/default.htm.

⁴⁰ See Federal Reserve Bank Services, “About Check 21 Act,” www.frb-services.org/eventseducation/education/check21_act.html.

⁴¹ See Meltzer, “Federal Reserve Policy in the Great Recession,” www.hoover.org/sites/default/files/meltzer-federal_reserve_policy_in_the_great_recession.pdf.

⁴² See Keith Goodwin, “Dodd-Frank Wall Street Reform and Consumer Protection Act of 2010,” July 21, 2010, Federal Reserve Bank of Richmond; 100 Years of the Federal Reserve System, www.federalreservehistory.org/Events/DetailView/59.

⁴³ See Consumer Financial Protection Bureau, www.consumerfinance.gov/the-bureau/.

⁴⁴ See Board of Governors of the Federal Reserve System, *Consumer Compliance Handbook*, Division of Consumer and Community Affairs, www.federalreserve.gov/boarddocs/supmanual/, pp. 1–8.

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GLOSSARY

ACCOMMODATIVE MONETARY POLICY

Designed to stimulate economic growth by increasing the money supply, this policy usually features a series of decreases in the federal funds rate to make it easier and less expensive for businesses to borrow money.

BANK RESERVES

This is the amount of deposits not loaned out by banks. Bank reserves can be calculated by subtracting a bank's total loans from its total deposits.

CENTRAL BANK

This governmental institution is responsible for issuing currency and monetary policy, which involves the overall growth of money and credit as well as the level of short-term interest rates. The Federal Reserve is the central bank of the United States.

DEFLATION

This economic state refers to the general downward movement of prices for goods and services; deflation is reflected as a negative inflation rate.

DEPRESSION

Considered to be a very deep recession, this period of severely declining economic activity across the economy is not confined to specific sectors or regions. For example the economic contraction of the Great Depression in the 1930s was so extreme that the unemployment rate reached 25 percent.

DISCOUNT WINDOW

This is one of the Fed's lending programs; it refers to programs under which credit can be provided to eligible depository institutions (savings banks, commercial banks, savings and loan associations, and credit unions).

FISCAL AGENT

This is the organization that agrees to accept and be responsible for another organization's money. In this case, the Fed is the fiscal agent for the federal government.

INFLATION

This economic state is marked by general, sustained upward movement in the prices of goods and services.

LENDER OF LAST RESORT

The Fed makes loans against high-quality collateral (assets pledged as security for the loans). Depository institutions may turn to the Fed as a lender of last resort during a financial crisis or a national/regional emergency.

MEMBER BANKS

All nationally chartered banks are members of the Fed, but they are supervised by the Office of the Comptroller of the Currency. State-chartered financial institutions are under the supervisory control of the Fed's Board of Governors. These institutions are structured in much the same way as private corporations are in that they have stock in the Fed Banks and earn dividends. Member banks also appoint six of the nine members of each Bank's board of directors.

M1

This term refers to a specific measure of the money supply, which includes coins, paper currency, traveler's checks, and all deposits in those banks and savings institutions on which a check can be written.

MONEY SUPPLY

This is the total amount of money available in the economy. Increasing the money supply can generate economic growth in the short run; however, when the growth of the money supply exceeds the growth of output in the economy for too long, inflation will be triggered.

OPEN MARKET OPERATIONS

The Federal Reserve uses this tool to implement monetary policy; it involves selling or buying government securities on the open market.

RECESSION

This economic state signals a period of general economic decline, which is typically defined as a contraction in the GDP for six months (two consecutive quarters) or longer.

TOO BIG TO FAIL

Former Fed Chair Ben Bernanke defined the term in 2010 as a firm "whose size, complexity, interconnectedness, and critical functions are such that, should the firm go unexpectedly into liquidation, the rest of the financial system and the economy would face severe adverse consequences."

Biographical Sketches

Key Players in the Life of the Fed



Carter Glass (1858-1946)

Carter Glass, the son of a newspaperman, was born in Lynchburg, VA. After attending school, he worked as a printer's apprentice, reporter, and editor and eventually owned his own newspaper. In 1899, he was elected to the state senate and served as a delegate to Virginia's constitutional convention. Three years later, he was elected to the U.S. House of Representatives and was appointed to the Committee on Banking and Currency. It was during the Panic of 1907 that Glass saw the need to reduce, if not eliminate, the number of bank panics and financial crises as well as the need for a more elastic currency. Early on, President Woodrow Wilson saw the potential in Glass and later appointed him Secretary of the Treasury, a position he held from 1918 to 1920. Although Glass joined the Senate as an appointee to fill a vacancy after the death of a senator, he was subsequently elected to several terms on his own. One of his biggest accomplishments came while he was in the House: He helped fashion the bill with Robert L. Owen that would later pass in both legislative chambers and become the Federal Reserve Act, which President Wilson signed on December 23, 1913.



Robert L. Owen (1856-1947)

Robert L. Owen, the son of the president of the Virginia and Tennessee Railway, was born in Lynchburg, VA. He graduated from Washington and Lee University with a master's degree in 1877. But after the loss of the family fortune, he left his home state and moved to Indian Territory with his mother, who was of Native American descent. They lived in an area that would eventually become Oklahoma, where he taught at the Cherokee Orphan Asylum and later studied law. After he gained admittance to the Bar, he was selected to head the United States Union Agency for the Five Civilized Tribes. In the years that followed, Owen owned and edited a newspaper in Oklahoma and later founded the First National Bank of Muskogee, serving as its president until 1900. When Oklahoma officially became a state in 1907, the state

legislature appointed him as representative. He became one of the state's first two senators and one of the nation's first senators of Native American descent. During his time as senator, he worked closely with Carter Glass on creating and prepping the Federal Reserve Act for President Woodrow Wilson's signature in 1913. In 1925, he retired from the Senate and then practiced law in Washington, D.C. Although Owen was instrumental in the creation of the Federal Reserve Act, much of the subsequent glory and recognition was given to Carter Glass, a situation that caused a rift in the men's friendship for years until Owen wrote to Glass saying that it was time for the ill will to end.



Woodrow Wilson (1856-1924)

The 28th President of the United States was born in Virginia, the son of a Presbyterian minister. Wilson graduated from Princeton University and the University of Virginia Law School and later received a Ph.D. from Johns Hopkins University in Baltimore. He taught at Princeton and became president of the university in 1902 before his election as governor of New Jersey in 1910. The Democratic party nominated him as its presidential candidate in 1912, and Wilson won the election with a large portion of the popular vote and an overwhelming majority of the electoral college. In 1913, Wilson signed the Federal Reserve Act, legislation that created the Federal Reserve System, the nation's central bank. Though he was reelected in 1916 on the promise that he would keep America out of the war in Europe, Wilson nonetheless asked Congress to declare war on Germany in April 1917. After the war ended in November 1918, Wilson spent time urging Congress to sign the Treaty of Versailles and fought for the provisions of the treaty that would form the League of Nations.



Franklin D. Roosevelt (1882-1945)

The 32nd President of the United States, Franklin Delano Roosevelt was born in Hyde Park, NY, to a prominent, wealthy family. A graduate of Harvard University and

Columbia Law School, Roosevelt was elected to the New York Senate in 1910 and was elected governor of New York in 1928 before winning the presidential election in 1932. Although stricken with polio in 1921, his courage and determination to pursue a lifelong career in politics was unstoppable. During his years as President, he instituted measures to deal with the Great Depression. Best known for the quote from his inaugural address, “the only thing we have to fear is fear itself,” Roosevelt instilled hope into the American people. His program for reform launched a strategy to get the nation back on its feet through Social Security, taxing the wealthy, and new regulations for banks and public utilities, as well as an extensive work relief program for the nation’s unemployed. When the Japanese attacked Pearl Harbor, Roosevelt orchestrated the nation’s manpower and resources to enter World War II. Roosevelt was elected to an unprecedented four terms in the White House.



Herbert Hoover (1874–1964)

Herbert Hoover, the 31st President of the United States, was born in West Branch, IA, moved to Oregon as a young boy, and eventually graduated from Stanford University with a degree in mining engineering. Before World War I erupted, he had been working in China, and he was in London when the war started. He worked with the American consul in London to help get American tourists home who had been stranded by the war. He also helped to establish the Commission for Relief in Belgium, which aided Belgian citizens besieged by the war. His work on the commission led President Woodrow Wilson to ask Hoover to become the U.S. Food Administrator to ration food supplies for American forces and to keep Americans fed during the war. After the war, he organized food shipments to Europe to help those who had been dispossessed by the war. He later served as Secretary of Commerce in the administrations of both Warren Harding and Calvin Coolidge. He was nominated as the Republican candidate for president in 1928, winning by a landslide. However, the worsening economic crisis and stock market crash in 1929 spelled doom for Hoover’s presidency. Although Hoover tried to deal with the initial stages of the Great Depression, he was not elected to a second term in 1932; he lost to Franklin D. Roosevelt. Hoover spent his post-White House years writing books and articles and serving on two presidential commissions.



Paul Volcker (1927–2019)

Born in Cape May, NJ, Paul Volcker lived in the North Jersey town of Teaneck. He graduated from Princeton in 1949 and earned a master’s degree from Harvard University in 1951. After Harvard, he held a fellowship at the London School of Economics before returning to the United States, where he became an economist in the Research Department of the New York Fed and later a special assistant in the Securities Department. In 1957, he joined Chase Manhattan Bank as a financial economist; in 1962, he became director of the Office of Financial Analysis at the U.S. Treasury, and in the following year, he was named deputy undersecretary for monetary affairs. Although he left the Treasury to rejoin Chase Manhattan as a vice president, he later returned to the Treasury in 1969 as undersecretary for affairs, a position he held for five years. He was a senior fellow at the Woodrow Wilson School of Public and International Affairs at Princeton and was named president of the New York Fed in 1975. Then-President Jimmy Carter appointed him Chair of the Board of Governors of the Federal Reserve System in 1979, a post he held until 1987. From 2009 to 2011, he served as chairman of President Barack Obama’s Economic Recovery Advisory Board.



Alan Greenspan (1926–present)

Alan Greenspan was Chair of the Board of Governors of the Federal Reserve System for five terms, from August 11, 1987, to January 31, 2006. Before assuming his duties as Chair, he held several jobs in the private and public sector. A native New Yorker, Greenspan received a doctorate and a master’s and a bachelor’s degree in economics from New York University. He started his career as an analyst for the National Industrial Conference Board and was later appointed chairman and president of Townsend-Greenspan & Co., an economic consulting firm. During Gerald Ford’s presidency, Greenspan was chairman of the President’s Council on Economic Advisers. Then, during Ronald Reagan’s presidency, Greenspan served on the Economic Policy Advisory Board and as a consultant to the Congressional Budget Office. As Chair of the Board of Governors, he led the Reserve through turbulent economic times, starting with the stock market crash in 1987, followed by two national recessions, the Asian

financial crisis in 1997, and the terrorist attacks in 2001. In 2006, when Greenspan left office, he launched Greenspan Associates, LLC, a consulting firm in Washington, D.C.



Christopher Dodd

(1944–present)

Christopher Dodd, a Connecticut native, was a U.S. Senator for more than 30 years. Before entering politics, Dodd graduated from Georgetown Preparatory School

in Maryland, Providence College, and the University of Louisville law school. A Democrat, Dodd entered the U.S. House of Representatives from Connecticut in 1974 and was reelected in 1976 and 1978, and then was elected U.S. Senator in 1980, becoming the longest serving senator in the history of Connecticut. From 1995 to 1997, he was general chairman of the Democratic National Committee and served as the chairman of the Senate Banking Committee until he retired in 2011. Dodd was also a candidate for President of the United States in 2007. Before joining forces with Barney Frank on the Dodd-Frank Wall Street Reform and Consumer Protection Act of 2010, Dodd provided input on major legislation, authoring the Family and Medical Leave Act in 1993 and adding the pay limitations in the American Recovery and Reinvestment Act of 2009. He was also the author and lead sponsor of the Credit Card Accountability Responsibility and Disclosure Act of 2009.



Barney Frank

(1940–present)

Barnett “Barney” Frank, a lifelong politician, was a member of the U.S. House of Representatives from Massachusetts for more than three decades. A Democrat, he was

chairman of the House Financial Services Committee from 2007 to 2011 and was a sponsor of the Dodd-Frank Wall Street Reform and Consumer Protection Act of 2010, which ushered in reforms to the U.S. financial industry. Frank, who was born and raised in New Jersey, has degrees from Harvard College and Harvard University Law School. He started his career as a political aide before he was elected to the Massachusetts House of Representatives in 1972

and to the U.S. House of Representatives in 1980. As chair of the House of Financial Services Committee, Frank took an active lead in mortgage foreclosure bailout issues, supporting the American Housing Rescue and Foreclosure Prevention Act and the Credit Cardholders’ Bill of Rights Act of 2008.



Ben S. Bernanke

(1953–present)

Ben S. Bernanke, born in Augusta, GA, and raised in Dillon, SC, succeeded Alan Greenspan as Chair of the Board of Governors of the Federal Reserve System in

February 2006. Prior to becoming Chair, Bernanke held a variety of academic positions at several universities. After receiving a bachelor’s degree in economics from Harvard University and a doctorate in economics from the Massachusetts Institute of Technology, he became an assistant professor and later an associate professor of economics at the Graduate School of Business at Stanford University, as well as a visiting professor of economics at New York University and MIT. In 1985, he joined the faculty of Princeton University as assistant professor of economics and public affairs. He later became the Class of 1926 Professor of Economics and Public Affairs and the Howard Harrison and Gabrielle Snyder Beck Professor of Economics and Public Affairs, as well as chair of the Economics Department at Princeton. Beginning in 2002, Bernanke became a member of the Board of Governors; he also was chairman of the President’s Council of Economic Advisers from 2005 to 2006. During his term as Chair of the Board of Governors, Bernanke faced two major economic downturns: the financial crisis from 2006 to 2010 and the Great Recession. In the face of these crises, he led initiatives to implement quantitative easing (the Fed program of purchasing mortgage-backed securities and long-term treasuries to stimulate the economy), adopting the formal inflation target rate of 2 percent, providing forward guidance on short-term interest rates, and promoting the transparency of the Federal Reserve through quarterly press conferences to detail the decisions of the Federal Open Market Committee.

