# The Federal Reserve System





### **Monetary System Timeline**

- Colonial Era to 1790s
  - Colonies issued their own currencies. The Continental Congress issued the Continental Currency during the Revolutionary War, which eventually collapsed due to inflation.
- 1791–1836: First and Second Banks of the United States
  - The First Bank (1791–1811) and Second Bank (1816–1836) were early attempts at central banking.
- 1863–1913: National Banking Era
  - The National Banking Acts established a system of national banks and a uniform national currency.
- 1913: Creation of the Federal Reserve System
  - The Federal Reserve Act established the Fed as the central bank of the U.S., aiming to provide stability to the financial system.
- 1933–1935: New Deal Reforms
  - The U.S. left the gold standard. The Banking Act of 1933 (Glass-Steagall) and 1935 restructured the Fed and introduced deposit insurance.

### **Monetary System Timeline**

- 1944: Bretton-Woods system begins
  - 44 Allied nations met to design a new international monetary and financial order after WWII. Created the IMF and the World Bank.
- 1951: Treasury-Fed Accord
  - Gave the Fed independence in monetary policy from the U.S. Treasury.
- 1971: End of Bretton Woods System
  - President Nixon ended the dollar's convertibility to gold, moving the U.S. to a fiat currency system.
- 1980s–2000s: Inflation Targeting and Modernization
  - The Fed increasingly focused on controlling inflation and began using interest rates as its primary tool.
- 2008–2009: Global Financial Crisis
  - The Fed introduced unconventional tools like quantitative easing and emergency lending facilities.
- 2020–Present: Pandemic Response and Inflation Management
  - Massive monetary stimulus followed by tightening to combat inflation.

#### General Interest Rate Influences

#### Inflation Expectations

• **Long-term interest rates** are heavily influenced by expectations of future inflation. If inflation is expected to rise, lenders demand higher interest to compensate for the reduced purchasing power of future repayments.

#### Monetary Policy

- Short-term interest rates are primarily driven by central bank actions, especially the U.S. Federal Reserve. The Fed uses tools like:
  - Open Market Operations (buying/selling government securities)
  - **Discount Rate** (interest charged to banks at the discount window)
  - Reserve Requirements (minimum reserves banks must hold).

#### Supply and Demand for Credit

• When **demand for credit** is high or **supply is low**, interest rates tend to rise. Conversely, low demand or high supply pushes rates down.

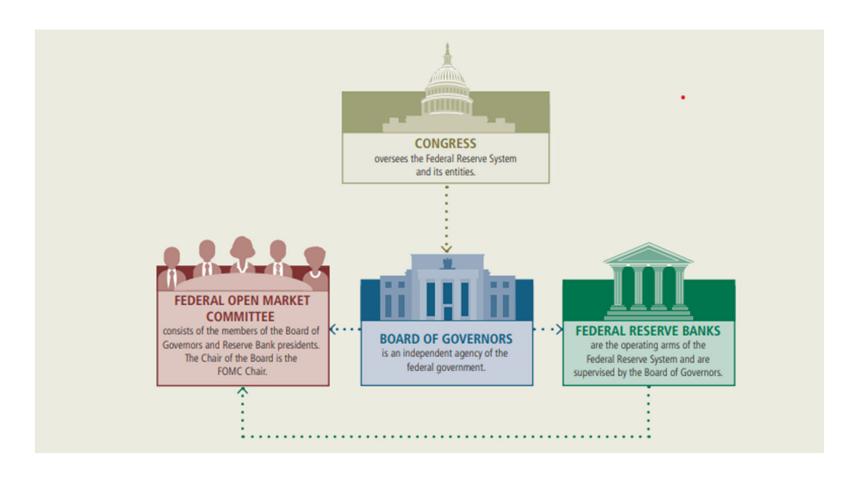
#### Government Fiscal Policy

• Large government deficits can increase borrowing needs, pushing up interest rates. Conversely, fiscal tightening can reduce pressure on rates.

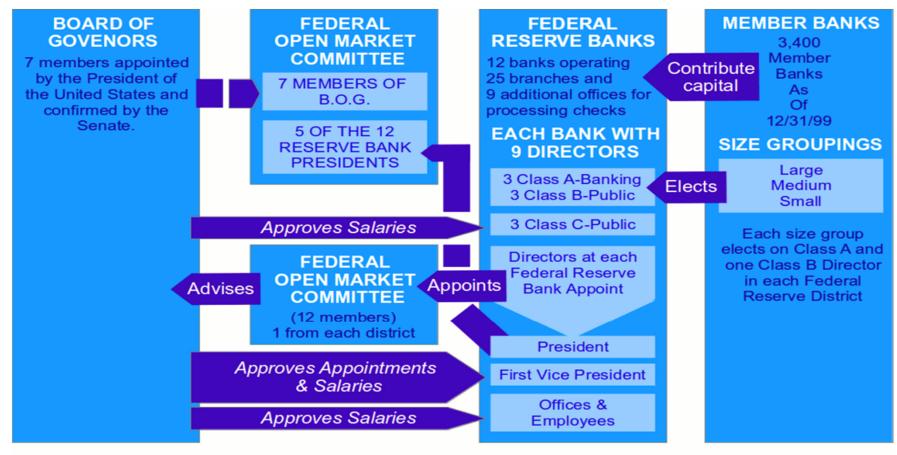
#### Global Economic Conditions

• International capital flows, geopolitical risks, and foreign central bank policies can all influence U.S. interest rates, especially in a globally interconnected market.

# Congressional Oversight

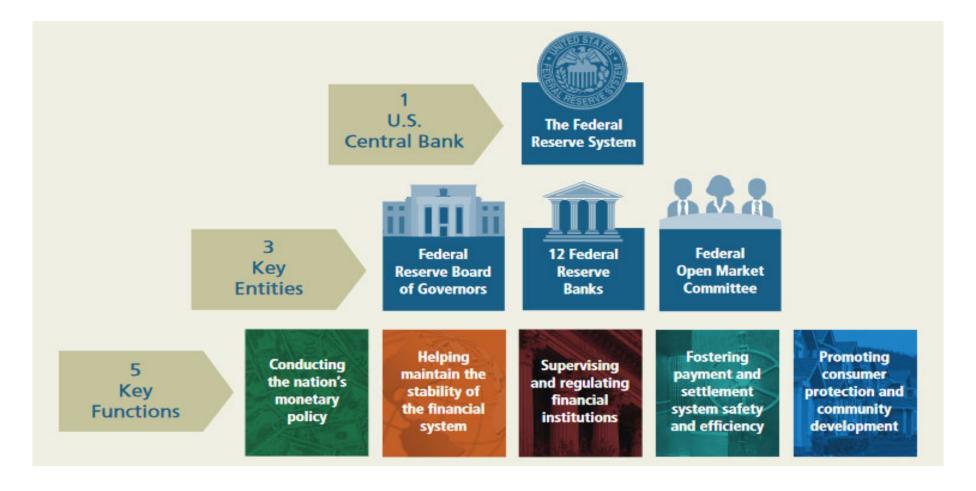


#### The FED Structure



Source: Board of Governors of the Federal Reserve System

#### The Federal Reserve



### Federal Reserve's 12 Districts



### The FED's 5 Key Functions

- Conducting monetary policy
- Promoting financial stability
- Supervising and regulating institutions
- Fostering payment and settlement systems
- Promoting consumer protection and community development

### 1. Conduction Monetary Policy

• Monetary policy is the Fed's actions, as a central bank, to achieve maximum employment and stable prices in the United States. The Fed conducts monetary policy through a variety of tools, including using interest rates and open market purchases and sales of securities, to manage financial conditions in the United States. This impacts overall financial conditions like longer-term interest rates, stock prices, exchange value of the dollar and the cost of many other assets. Ultimately, these financial conditions affect U.S. spending, investment, production, employment and inflation.

### 2. Promoting Financial Stability

 A financial system is "stable" when financial institutions and markets remain resilient, even under extreme economic pressures and volatility. Introduced after the 2007-09 market crisis, the Dodd-Frank Act requires that the Fed and other financial regulatory agencies study large, complex financial institutions for risks. This is known as a "macroprudential" approach to supervision and regulation, and ultimately helps safeguard financial markets and the broader economy.

### 3. Supervising and Regulating Institutions

• In addition to its macroprudential role, the Fed also promotes the safety and soundness of individual financial institutions and their impact on the broader financial system. This includes establishing specific guidelines governing the formation, operations, activities and acquisitions of financial institutions. The Fed is the primary federal supervisor of state-chartered banks that have chosen to join the Federal Reserve System, while state banks that are not Federal Reserve System members are supervised by the Federal Deposit Insurance Corporation.

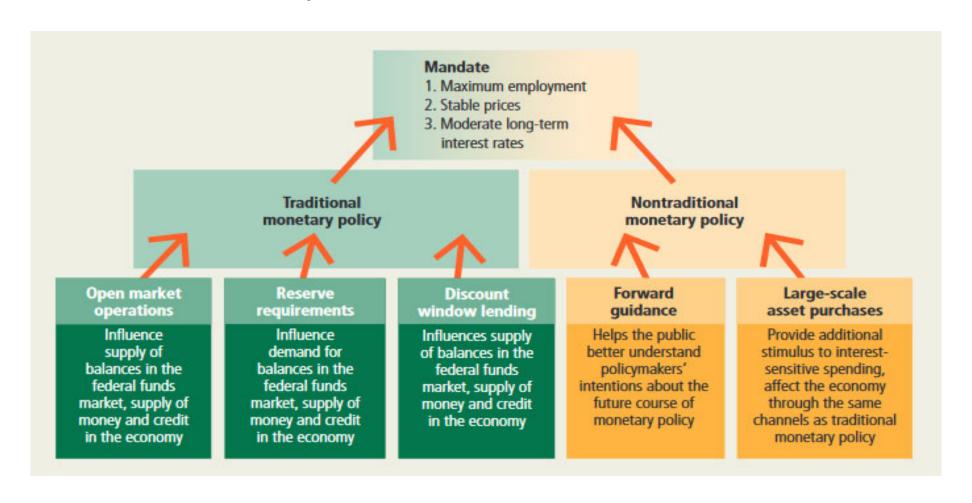
## 4. Fostering Payment/Settlement System

• The Fed performs several key functions within the U.S. payment system to help keep cash, check and electronic transactions moving through the U.S. economy for consumers and businesses. The functions of the Fed in this space include providing services to depository institutions and the U.S. federal government, regulating certain aspects of the payment system and analyzing the system to identify and implement improvements. These services support U.S. financial markets and private-sector clearing, payment and settlement arrangements.

# 5. Promoting Consumer Protection and Community Development

• The Fed advances supervision, community reinvestment and research to better understand impacts of financial services policies and practices on consumers and communities. The Fed's research in this space also helps inform policy decisions and their effect on businesses and consumers. Engaging with key stakeholders is another way to identify emerging issues and implement policies to advance community reinvestment and consumer protection.

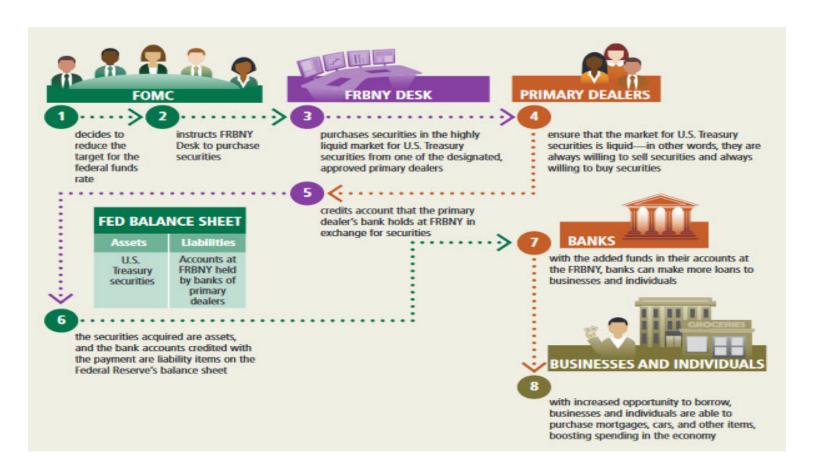
# Fed's Statutory Mandate



# Traditional Monetary Policy Tools

Tool	What is it?	How does it work?	Who uses it?
Reserve requirements	The percentage of deposits that commercial banks and other depository institutions must hold as reserves.	Reserve requirements create a stable demand for reserves. The Federal Reserve then adjusts the supply of reserves through open market operations to keep the level of the federal funds rate close to the target rate established by the Federal Open Market Committee (FOMC).	Determined by the Board of Governors (within ranges specified by the Federal Reserve Act).
Open market operations	Purchases or sales—temporary or permanent—of U.S. government and agency securities in the open market.	Each purchase or sale of securities directly affects the volume of reserves in the banking system and thus the level of the federal funds rate.	Directed by the FOMC; conducted by the Federal Reserve Bank of New York (in competitive operations with primary dealers).
Discount window lending	Depository institutions can borrow from a Federal Reserve Bank.	Credit provided by the Feder- al Reserve's discount window supplies balances and can help address pressures in the federal funds market.	Reserve Banks lend to de- pository institutions; interes rate charged is determined by the Board of Governors.

### Open Market Operations (OMO)



### Open Market Operations

#### To raise the fed funds rate:

- NY Fed sells T-notes to large member banks
- The bank pays through a reduction in reserves
- Less reserves in the system = Fed funds rise

#### To lower the fed funds rate:

- NY Fed buys T-notes from large member banks
- The Fed pays by increasing bank reserves
- More reserves in the system = Lower funds rate



#### • Fed Sells:

- Drains reserves from the banking system.
- Decreases the money supply.
- Increases the supply of government securities in the secondary market.
- Decreases the price of government securities.
- Increases short-term interest rates.

#### Fed Buys:

- Injects reserves into the banking system.
- Increases the money supply.
- Increases the demand for government securities in the secondary market.
- Increases the price of government securities.
- Decreases short-term interest rates.



### Discount Window / Discount Rate

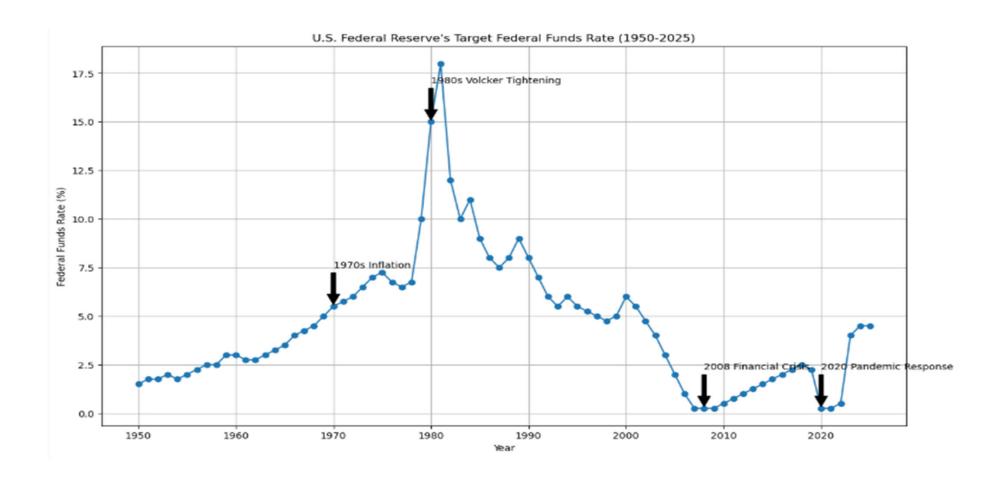
The **discount window** plays an important role in supporting the liquidity and stability of the banking system and the effective implementation of monetary policy. By providing ready access to funding, the discount window helps depository institutions manage their liquidity risks efficiently and avoid actions that have negative consequences for their customers, such as withdrawing credit during times of market stress. Thus, the discount window supports the smooth flow of credit to households and businesses.

The <u>discount rate</u> is the interest rate charged to commercial banks and other depository institutions on loans they receive from their regional Federal Reserve Bank's lending facility—the discount window. The Federal Reserve Banks offer three types of credit to depository institutions: primary credit, secondary credit, and seasonal credit, each with its own interest rate. All discount window loans are fully secured.

#### Reserve Requirement

- Amount of physical funds that depository institutions are required to hold in reserve against deposits in bank accounts.
- Determines how much money banks can create through loans and investments.
- Set by the Board of Governors, the reserve requirement is usually around 10%. Excess reserves are held either as vault cash or in accounts with the district Federal Reserve Bank.
- Current Reserve Requirement level is 0%
  - effective March 26, 2020

# Target FED Funds Rate



### Other Monetary Policy Tools

- Interest on Reserve Balances (IORB)
  - The Fed pays interest on the reserve banks hold at the Fed.
  - Adjusting this rate helps control the federal funds rate and influences broader financial conditions.
- Overnight Reverse Repurchase Agreement Facility (ON RRP)
  - Allows financial institutions to lend funds overnight to the Fed in exchange for Treasury securities.
  - Helps set a floor under short-term interest rates.

### Supplementary and Emergency Tools

- Term Deposit Facility
  - Offers interest-bearing term deposits to banks to manage reserves.
- Standing Repo Facilities
  - Provide liquidity to primary dealers and banks via repurchase agreements.
- Central Bank Liquidity Swaps
  - Coordinate with foreign central banks to ensure dollar liquidity abroad.
- FIMA Repo Facility
  - Offers foreign and international monetary authorities access to U.S. dollar liquidity.

### Limitations of Monetary Policy

- Information Lags and Data Uncertainty
  - One of the most fundamental limitations is the lag in economic data.
     Policymakers often rely on backward-looking indicators that are subject to revision. Information delay means the Fed may act on outdated or incomplete information, making it difficult to time interventions effectively.
- Imperfect Economic Models
  - The Fed operates with a less-than-perfect understanding of the economy's mechanics. Economic relationships—such as how interest rates affect employment or inflation—can shift over time. This makes it hard to predict the exact impact of policy changes.

### Limitations of Monetary Policy

- Limited Control Over Money Supply
  - While the Fed can influence the monetary base, it cannot directly control how much money households and businesses deposit or borrow. This weakens its ability to steer the broader money supply and credit conditions, especially during periods of low confidence or financial stress.
- Asymmetric Effects Across Sectors
  - Monetary policy does not affect all sectors equally. For example, interest rate
    hikes may cool housing and manufacturing more than services. This uneven
    impact can lead to imbalanced economic outcomes.

### Limitations of Monetary Policy

- Zero Lower Bound and Liquidity Traps
  - When interest rates approach zero, the Fed's traditional tools become less effective. This is known as the zero lower bound problem. In such cases, even aggressive rate cuts may not stimulate borrowing or spending, requiring unconventional tools like quantitative easing.
- Global and Fiscal Constraints
  - The Fed's influence is also limited by global economic conditions and fiscal policy decisions. For instance, global capital flows or large government deficits can counteract the Fed's efforts to stabilize the economy.

#### FedNow Service

- FedNow Service went live on July 20, 2023
- It is available to depository institutions in the United States and enables individuals and businesses to send instant payments through their depository institution accounts.
- Enables individuals and businesses to send and receive payments within seconds at any time of the day, on any day of the year, so that the receiver of a payment can use the funds immediately.
- The service provides interbank clearing and settlement that enables funds to be transferred from the account of a sender to the account of a receiver in near real-time and at any time, any day of the year.
- The FedNow Service is designed to maintain uninterrupted 24x7x365 processing with security features to support payment integrity and data security.
- The service has a 24-hour business day each day of the week, including weekends and holidays.

#### **BRICS**

- Brazil, Russia, India, China, and South Africa
- BRICS refers to certain emerging market countries that seek to establish deeper ties and cooperation between member nations on economic expansion, including trade.
- The countries act as a counterbalance to traditional Western influence. They seek to depend on each other to build growing influence in the world.
- The potential departure from a US dollar-based trading system by these countries could have significant implications on the US economy.

#### **FED Information Tools**

- FED
  - Federal Reserve Board Home
- FED Dallas
  - Federal Reserve Bank of Dallas Dallasfed.org
- FED Economic Charts
  - U.S. Economic Activity Dallas Fed
- FRASER (Digital library of U.S. economic, financial, and banking history—particularly the history of the Federal Reserve System).
  - FRASER | Discover Economic History | St. Louis Fed (stlouisfed.org)
- FED Policy Tools
  - <u>Federal Reserve Board Policy Tools</u>
- FedNow
  - Federal Reserve Board FedNow® Service