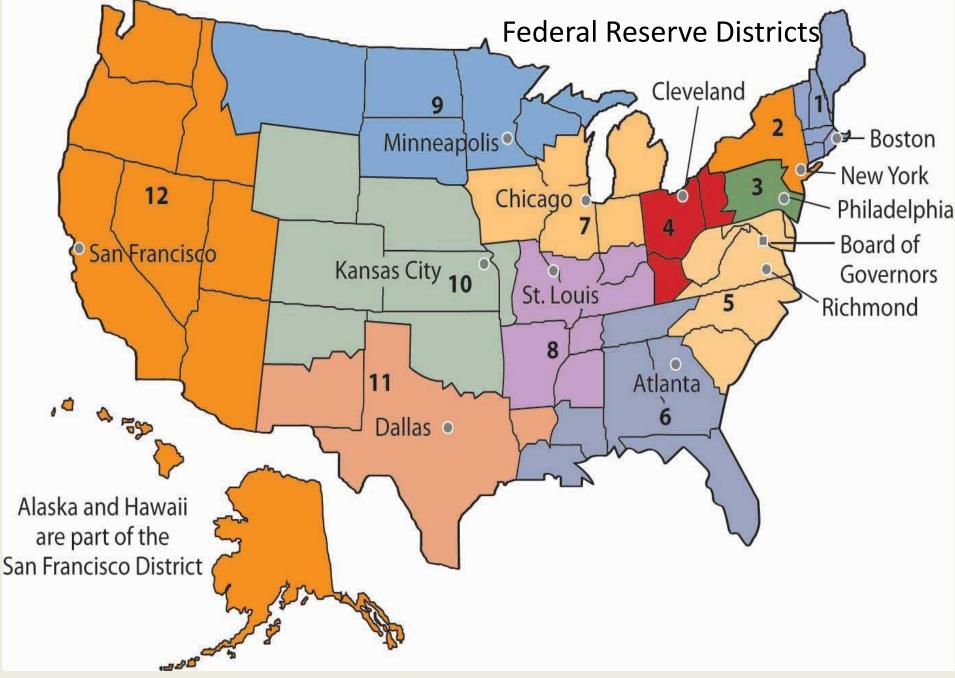
## The Fed and US Monetary Policy

#### **Central Banks**

- The Federal Reserve System, aka the Fed, is central bank of United States.
- Central bank is a financial institution given privileged control over production and distribution of money and credit for a nation or a group of nations. In modern economies, the central bank is usually responsible for the formulation of <u>monetary policy</u> and regulation of member banks.
- Central banks are non-market-based or even anti-competitive institutions, i.e. given certain monopoly powers. Although some are nationalized, many central banks are not government agencies, and often touted as being politically independent. However, even if central bank is not legally owned by government, its privileges are established and protected by law.
- Critical feature of a central bank—distinguishing it from other banks—is
   <u>legal monopoly</u> status, which gives it privilege to issue banknotes and cash.
- Aside from Fed, other important central banks include European Central Bank, Bank of England, Bank of Japan, and Peoples Bank of China.

## Federal Reserve – Institutionally

- Created in 1913, in response to recurring national financial crises
- 12 districts and district banks, each with President and 9-member Board of Directors; see also next 2 slides
- 7-person Board of Governors, nominated to lengthy terms, and subject to confirmation by Senate
  - The Chairman, currently Jerome Powell, is selected, nominated, and elected to 4 year term(s) from within existing members of Board
- 12-person Federal Open Market Committee, which is where FRB monetary policy is decided and carried out
  - Members are Board of Governors, President of NYFRB, and 4 presidents of the remaining 11 banks in rotating 1 year terms
- By structure and tradition, insulated from political pressure
- Fed's most visible task is monetary policy, but it also oversees financial system and provides infrastructure for clearing of money transfers within United States through checks and Fedwire



# Federal Reserve District Bank Roles

- Supervising and examining state member banks (state-chartered banks that have chosen to become members of Federal Reserve System), bank and thrift holding companies, and nonbank financial institutions designated as systemically important, under authority delegated to them by the Board;
- Lending to depository institutions to ensure liquidity in financial system;
- **Providing key financial services** that undergird nation's payment system, including distributing the nation's currency and coin to depository institutions, clearing checks, operating FedWire and automated clearinghouse (ACH) systems, and serving as bank for U.S. Treasury;
- **Examining certain financial institutions** to ensure and enforce compliance with federal consumer protection and fair lending laws, while also promoting local community development; and
- Holding the assets \$7 trillion at present of Federal Reserve System

	Portrait	Current governor	Party (Nominated By)	Term start	Term expires
Board of Governors, Present Members		<u>Jay Powell</u> ( <u>Chair</u> )	<u>Republican</u>	February 5, 2018 (as Chair) May 23, 2022 (reappointme nt)	May 15, 2026 (as Chair)
				May 25, 2012 (as Governor) June 16, 2014 (reappointme nt)	January 31, 2028 (as Governor)
		<u>Philip Jefferson</u> ( <u>Vice Chair</u> )	<u>Democratic</u>	September 13, 2023 (as Vice Chair)	September 7, 2027 (as Vice Chair)
				May 23, 2022 (as Governor)	January 31, 2036 (as Governor)
		<u>Michael Barr</u> ( <u>Vice Chair</u> for Supervision)	<u>Democratic</u>	July 19, 2022 (as Vice Chair for Supervision)	July 13, 2026 (as Vice Chair for Supervision)
				July 19, 2022 (as Governor)	January 31, 2032 (as Governor)
		<u>Miki Bowman</u>	<u>Republican</u>	November 26, 2018 February 1, 2020 (reappointme nt)	January 31, 2034
		Chris Waller	Republican	December 18, 2020	January 31, 2030
1/15/2024		Lisa Cook	<u>Democratic</u>	May 23, 2022	January 31, 2038
		Adriana Kugler	Democratic	September 13, 2023	January 31, 2026

#### **Board of Governors – Chairs since 1951**

Ch	nair	Start	End	Length	Nomina	tor
	<u>liam McChesney</u> <u>rtin</u>	April 2, 1951	January 31, 1970	18 years, 304 days	Harry Truman	
Art	<u>hur F. Burns</u>	February 1, 1970	January 31, 1978 <sup>[d]</sup>	7 years, 364 days	<u>Richard</u> <u>Nixon</u>	
<u>G. \</u>	<u> William Miller</u>	March 8, 1978	August 6, 1979	1 year, 151 days	<u>Jimmy</u> <u>Carter</u>	
Pau	Il Volcker	August 6, 1979	August 11, 1987	8 years, 5 days		
Ala	n Greenspan	August 11, 1987	January 31, 2006 <sup>[e]</sup>	18 years, 173 days	<u>Ronald</u> <u>Reagan</u>	
Ber	<u>n Bernanke</u>	February 1, 2006	January 31, 2014	7 years, 364 days	<u>George</u> <u>W. Bush</u>	
Jan	<u>et Yellen</u>	February 3, 2014	February 3, 2018	4 years, 0 days	<u>Barack</u> Obama	
Jero	ome Powell	February 5, 2018	Incumbe nt <sup>[f]</sup>	4 years, 10 days	<u>Donald</u> <u>Trump</u>	

## **Federal Reserve – Monetary Policy**

- The monetary policy carried out by the Fed consists of the Fed changing interest rates and credit availability to address undesirable macroeconomic outcomes.
- The FRB uses monetary policy mainly to address 2 types of problems:
  - Recession, too slow growth, too high unemployment
  - Excessive inflation
  - Not so much in US, but in some other countries, central bank also manages exchange rate of the country's currency
- When addressing slow growth, Fed lowers interest rates and raises credit availability, as it did during Great Financial Crisis of 2008-2009 and Covid recession.
- When addressing inflation, Fed raises interest rates / lowers credit availability, as it did from mid 2022 until recently.

## **Monetary Policy - Mechanics**

- To lower interest rates / increase credit availability, called stimulative/expansionary policy, FRB does some combination of (mainly the first):
  - Buys securities in the open market (this is where the FOMC comes in); this is main way FRB carries out monetary policy; this shows up as changes in Federal Funds Rate
  - Lowers something called discount rate, a rate it charges banks to borrow money from it; of lesser importance now
  - Lowers reserve requirement, the percent of deposits banks must hold in reserve; also not much used in monetary policy
- To raise interest rates / decrease credit availability, called contractionary or tight policy, FRB does reverse, or less, of above – selling securities, raising discount rate, raising reserve requirements.

### **Monetary Policy Actions – Impacts on Economy**

- How these policies change interest rates / credit availability and, hopefully, affect economy, is as follows, looking at a contractionary policy example – the policy that Fed was in from mid 2022 until a couple of months ago.
- Open Market Operations.
  - FRB sells securities, usually very short-term;
  - which lowers prices of securities and raises "yield" or interest rate;
  - the higher interest rates on these securities, and less credit, cause general raising of interest rates;
  - the higher interest rates cause less spending, which slows down inflation, but also possibly growth.
- Discount Rate.
  - FRB raises discount rate;
  - this makes money more expensive to banks;
  - this causes them to lend less and at higher rates;
  - causes a general raising of interest rates ;
  - and affects broader economy as above

#### **Monetary Policy Actions – Impacts on Economy**

- Reserve Requirements.
  - FRB raises reserve requirements;
  - this gives banks less money to lend; and they lend less;
  - interest rates rises;
  - and impacts economy as in first bullet above.
- For a stimulative policy, what was done starting in 2009 and in again in 2020, everything above would be reversed.

### **Monetary Policy - Nuances**

- Monetary Policy can go wrong, or at least not work as well as expected; this happens much more in stimulative policy than in contractionary policy.
- Banks/People don't lend/borrow the additional credit FRB has provided, called "liquidity trap"; very present in 2008 and 2009; only happens in stimulative policy.
- Economy is suffering falling prices, called "deflation", such that even at very low nominal interest rates, the so-called "real" interest rate stays positive; also only happens in stimulative policy.
- So-called Yield Curve twists. The yield curve shows at a point in time interest rates across maturities of financial instruments from overnight to long term; see graph.



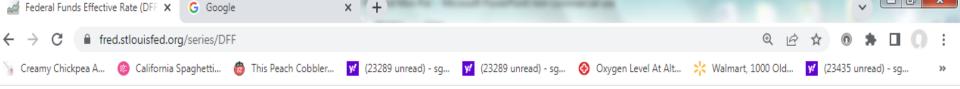
 Traditional monetary policy changes short term interest rates with hope that long term, which most affect spending, move the same way. Often this is the case, but sometimes not, and, for example, raising short term interest rates may not raise long term ones and frustrate policy. Happened in mid 1990s. Or, lowering short term rates does not lower long term rates. Happened in 2008 and subsequent years. Can occur in both stimulative and contractionary monetary policy.

## **Monetary Policy – Nuances, continued**

- The decision to change monetary policy and its impacts comes "too late" to be there when needed, due to various lags (recognition, decision, impact); can happen with either policy and was a factor in the waiting too long to shift to contractionary policy during recent inflation acceleration.
- An observer of monetary policy summarized asymmetry between stimulative and contractionary policy with a string analogy. Fed is on one end of a string, the economy on other end. When Fed pulls on string (contractionary) economy is definitely impacted, but when Fed pushes on string (expansionary), string might buckle and economy not be impacted
- And, even when monetary policy "works" undesired side effects can occur:
  - In contractionary monetary policy like recently used, inflation is slowed, but so could be growth, and there may be negative asset price effects
  - In expansionary monetary policy, growth is spurred, but so is inflation, ala 2021 and 2022.

### Fed Monetary Policy – Post 2008 to Present

- Story starts with Great Financial Crisis (GFC) in late 2008.
- FRB started with traditional monetary policy, buying short term securities and lowering Federal Funds rate.
- This did not work, in part because of liquidity trap and in part because of twisting yield curve, so FRB started buying longer term securities; this is what has been called Quantitative Easing (QE).
- They also injected ownership capital directly into banks to prevent the banks from collapsing; very "untraditional" action of the FRB.
- Graph on next slides illustrates how Federal Reserve monetary policy evolved over past decade.

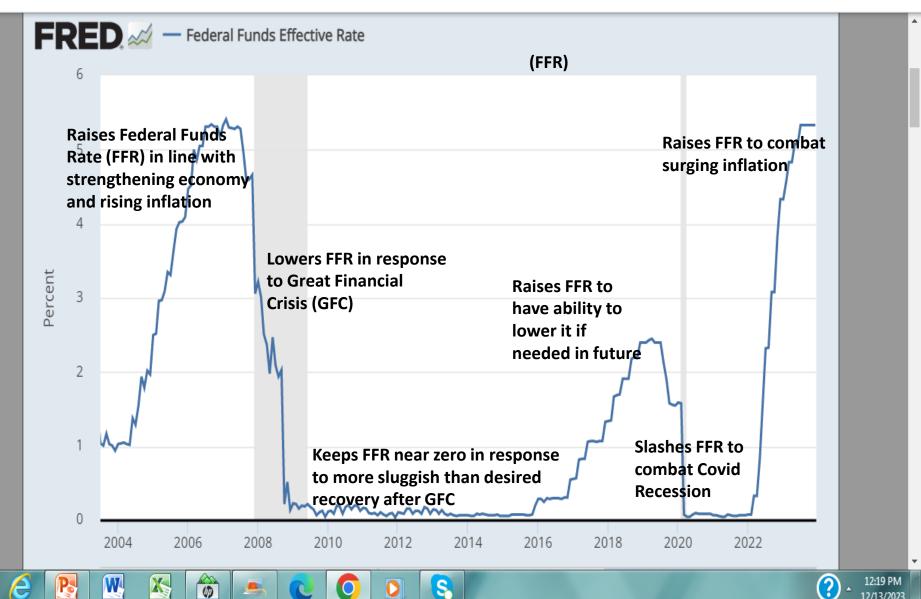


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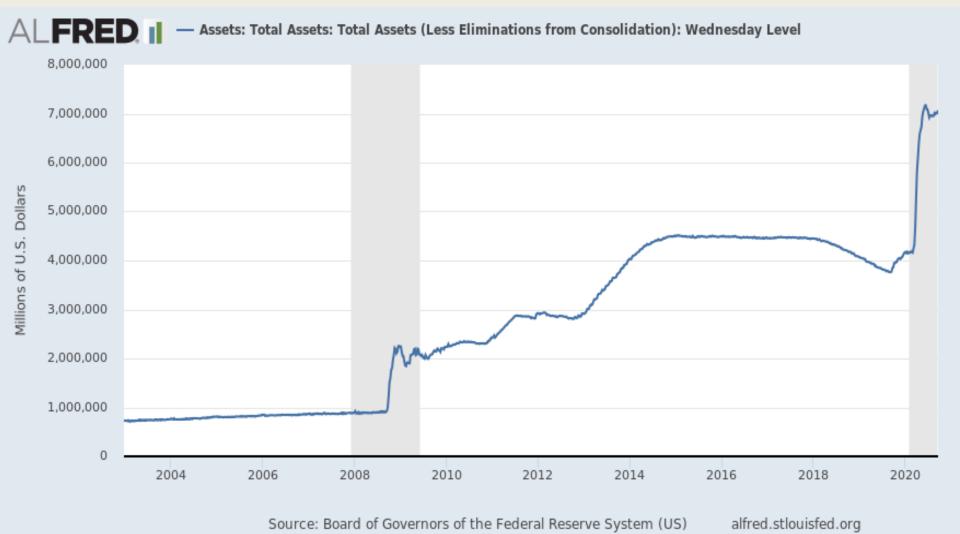
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Learn more

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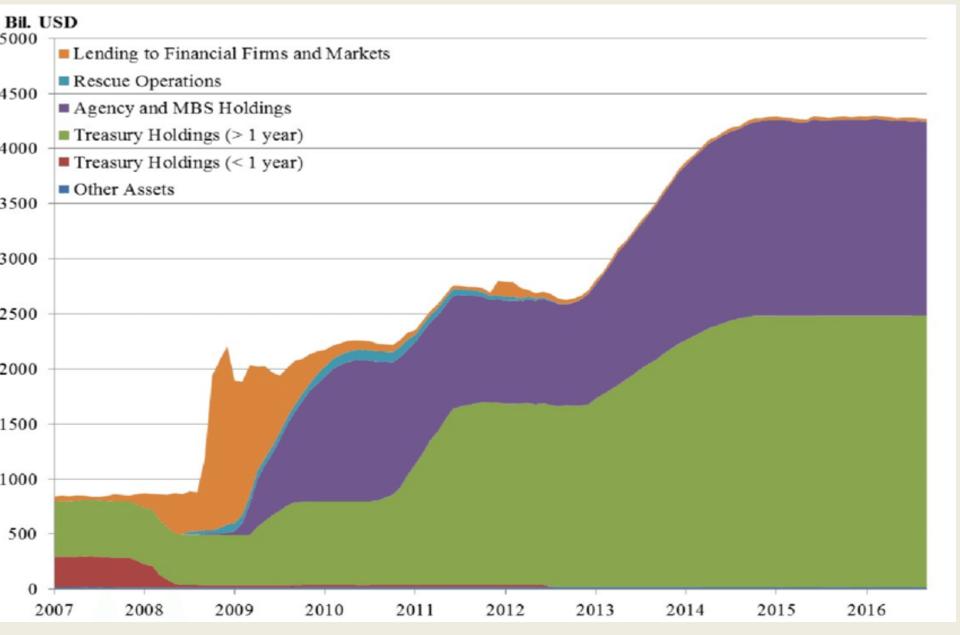


Below graph of Federal Reserve assets over time mirrors previous graph of Federal Funds rate. Until 2009, it shows a steady, moderate, growth in assets as Fed purchased government securities to infuse additional credit into a growing economy. In 2009 there was a sharp rise in assets as Fed bought vast amounts of financial assets to offset GFC. The first half of 2010s shows the continued growth in assets during QE, 2018-2019 the drop in assets as Fed raised interest rates, the second "explosion" in assets held as the Fed counteracted the Covid recession, and finally the leveling off of assets as the Fed turned from boosting growth to fighting inflation in 2022-2023.



(c) Daniel Gaske 2022

This graph shows following Great Recession of 2008-2009 how mix of Fed assets shifted away from securities toward other methods of providing finance and then back to more securities.



A Digression on Profitability: Because the Fed "creates" the money with which it buys securities, its costs of funds is very low, the Fed is very profitable, and, by law, remits those profits to Treasury, by law, as shown below. This process actually a name – seniorage. Because Fed acquired even more assets during Covid, present amounts are even higher.



#### Present Day

- As we discussed for those in course last fall, Fed has ended its contractionary policy, i.e., stopped raising interest rates and pulling credit from economy.
- This policy change has occurred because of the sharp drop in inflation, now down solidly to a 3 percent inflation rate.
- It seems this more or less "neutral" policy i.e., neither raising nor lowering Federal Funds rate – likely will be in place well into next year. And, financial markets seem to be pricing in actual decreases in Federal Funds Rate.
- This outcome could of course change.
  - If inflation ticks back up, a more contractionary policy and cessation of interest rate cuts could result.
  - Or, if growth slows, a more expansionary policy and faster Federal Funds Rate cuts would be the result.

## References

- <u>https://en.wikipedia.org/wiki/Federal Reserve Bank</u>
- <u>https://www.federalreserveeducation.org/about-the-fed/structure-and-functions</u>
- <u>https://www.federalreserveeducation.org/about-the-fed/structure-and-functions/monetary-policy</u>