Central Banks and Federal Reserve System

ECO 301: Money and Banking

Goals and Learning Outcomes

- Goals:
  - Describe objectives for monetary policy.
  - Describe the structure of Federal Reserve System.
- Learning Outcomes:
  - LO6: Explain the structure of the Federal Reserve System and the mechanisms in which it controls the money supply.

Reading and Exercises

- Structure of the Federal Reserve System: Chapter 13, pp. 434-444
- Central bank independence: Chapter 13, pp. 454-460
- **Canvas quiz due Wed 11:59 PM**.
- **Homework/Exercise due Fri 11:59 PM**. We will work together in class on Thursday

Goal: Inflation Stability

- **Inflation Stability**: Overriding goal of most central banks is to maintain a low and stable rate of inflation.
- Why Stability?
  - When overall price level changes unpredictably, it is difficult to interpret changes in prices of individual goods, services, and assets.
  - Leads to sub-optimal decisions for risk averse people, less efficient financial system.
  - Stability essential for long-term planning.
- Why inflation?
  - Unexpected deflation redistributes wealth from borrowers to lenders.
  - Unexpected inflation redistributes wealth from lenders to borrowers.
  - Expectations for deflation decreases current demand for products and services.

Time Consistency Problem

- Central bank's desire for price stability may take back seat to concerns over low production, unemployment, etc.
- If central bank regularly abandons long-run price stability objective - people begin to expect that.
- Decreases central bank's credibility that it will control inflation
- Without credibility, Inflation shocks lead people begin to expect higher inflation
- Increases uncertainty, risk, and produces a less efficient economy and financial system.
- Kydland and Prescott (2004 Nobel Prize winners) argue, the *less* the Fed does to stabilize the economy, the *more* stable it will be.

Goal: Maximum Employment

Reasons to aim for a high level of employment:

- High unemployment leads to idle workers, idle resources, lower GDP.
- Readily available data: employment statistics computed on a monthly basis by the Bureau of Labor Statistics.
- Social cost of unemployment (empirical evidence for higher incidences of crime, suicide, relationship problems, and more)
- Long unemployment episodes result in losses of human capital

Types of Unemployment

Three types of unemployment:

1. Frictional unemployment: causes by normal turn-over in the labor force, normal job/candidate search costs.
2. Structural unemployment: unemployment caused by permanent decreases in demand for certain types of labor (perhaps due to changes in international trade or technology).
3. Cyclical unemployment: unemployment associated with downturns in the economy.

Goal: Long-Run Economic Growth

- Closely related to goals of high employment / high output
- This policy implies a long-run goal over years or decades, longer than a business cycle of recession and expansion
- Policies that promote:
  - Long-run stability in prices, production, financial markets
  - Confidence for firms to make long-term investments in new capital, leads to higher future production possibilities
  - Consumer savings (in equilibrium saving = investment)

Other Goals

- Financial market stability: financial crisis interferes with the financial market's function to channel saving to people with productive investment opportunities
- Interest rate stability:
  - Encourages minimal uncertainty regarding bond market capital gains
  - Encourages long-run investment in capital
- Stability in foreign exchange markets:
  - Rises in the value of the dollar hurts exporting industries
  - Decreases in the value of the dollar hurts consumers, industries that depend on foreign factors of production
  - Primary focus with countries with fixed or managed exchange rates (vs floating exchange rate)

Hierarchical and Dual Mandates

Hierarchical mandate: Explicit that inflation stability is the first priority

- Employment stability and other goals are secondary
- Examples: Bank of England, Bank of Canada, European Central Bank, Reserve Bank of New Zealand

Dual mandate: Central banks whose rules allow for multiple objectives

- United States Federal Reserve has a dual mandate: promote maximum employment and inflation stability
- Central banks may prioritize short-term employment goals over long-term stability
  - Can result in higher inflation if central bank is *perceived* as sacrificing inflation stability for other objectives
  - Credibility that the central bank will maintain low stable inflation is crucial for effective monetary stabilization policy

Scholar Spotlight: Dr. Nikolsko-Rzhevskyy and Dr. Prodan

The Taylor Principles, (2019), *Journal of Macroeconomics*, December 2019.

(Also with David Pappell and Ruxandra Prodan)

Changes in Fed's Priorities

- 1979 and earlier: Low priority on inflation, higher priority on employment
- Volcker period (1980-1987): High priority on lowering inflation, little on employment
- 1987-1999: Low priority on inflation, high priority on employment
- 1999-2006: Balanced priorities on inflation and employment
- 2007-2015 very low priority on inflation

About the Scholars

Dr. Alex Nikolsko-Rzhevskyy (left)
Professor, Lehigh University

Dr. Ruxandra Prodan Boul (right)
Instructional Associate Professor
University of Houston

Structure of the Fed: Board of Governors

- Seven members appointed by the president and confirmed by the senate.
- Each has a 14-year term. A new seat comes up every 2 years.
- No re-appointments, unless finishing an incomplete term.
- One chairperson, one vice chairperson, each with a 4-year renewable term (part of the full 14-year term).
- Chair and vice chair are appointed from Board of Governors by president / approved by senate
- By law, appointments must result in “fair representation of the financial, agricultural, industrial, and commercial interests and geographical divisions of the country”

Federal Reserve Chair: Current

Jerome Powell

- Appointed by Pres. Donald Trump (R) in 2018
- Re-appointed by Pres. Joseph Biden (D) in 2022

Federal Reserve Chair: Future

Kevin Warsh (nominee)

- Nominated by Pres. Donald Trump (R) in 2026
- Yet to be approved by the Senate
- Served on the Fed Board of Governors from 2006-2011

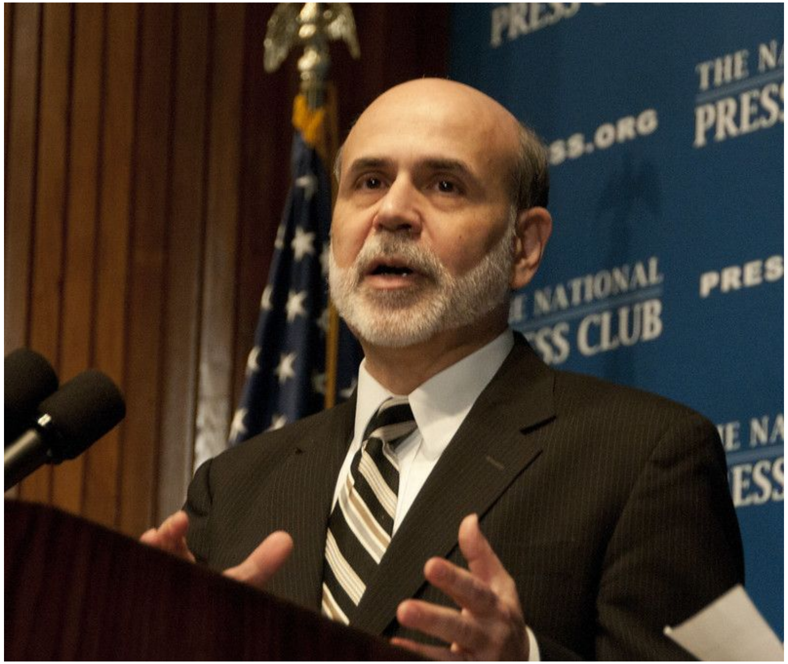
Janet Yellen

- In office: 2014-2018
- Appointed by Pres. Barack Obama (D) in 2014

Federal Reserve Chair: Past

Ben Bernanke

- In office: 2006-2014
- Appointed by Pres. George W. Bush (R) in 2006
- Re-appointed by Pres. Barack Obama (D) in 2010
- In office during the Great Recession and financial crisis and long recovery



Alan Greenspan

- In office: 1987-2006
- Appointed by Pres. Ronald Reagan (R) in 1987
- Reappointed by Pres. George Bush (R) in 1992
- Reappointed by Pres. Clinton (D) twice in 1996 and 2000
- Reappointed by Pres. George W. Bush (R) in 2004

Federal Reserve Chair: Past

Paul Volcker

- In office: 1979-1987
- Appointed by Pres. Jimmy Carter (D) in 1979
- Reappointed by Pres. Ronald Reagan (R) in 1983
- In his tenure, raised interest rates to historical levels to combat historically high inflation

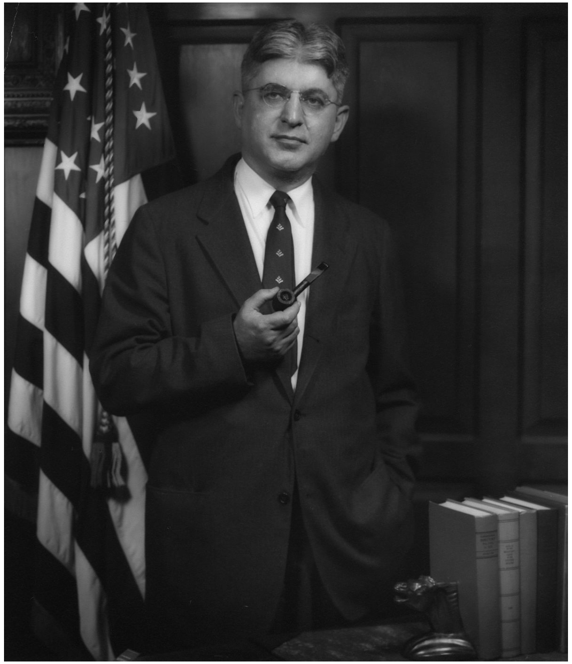
George William Miller

- In office: 1978-1979
- Appointed by Pres. Jimmy Carter in 1978 (D)
- Resigned in 1979 to become Carter's appointed Secretary of the Treasury

Federal Reserve Chair: Past

Arthur Burns

- In office: 1970-1978
- Appointed by Pres. Richard Nixon (R) in 1970
- Reappointed by Nixon in 1974
- Very high inflation. The CPI rose by 74% during his tenure.

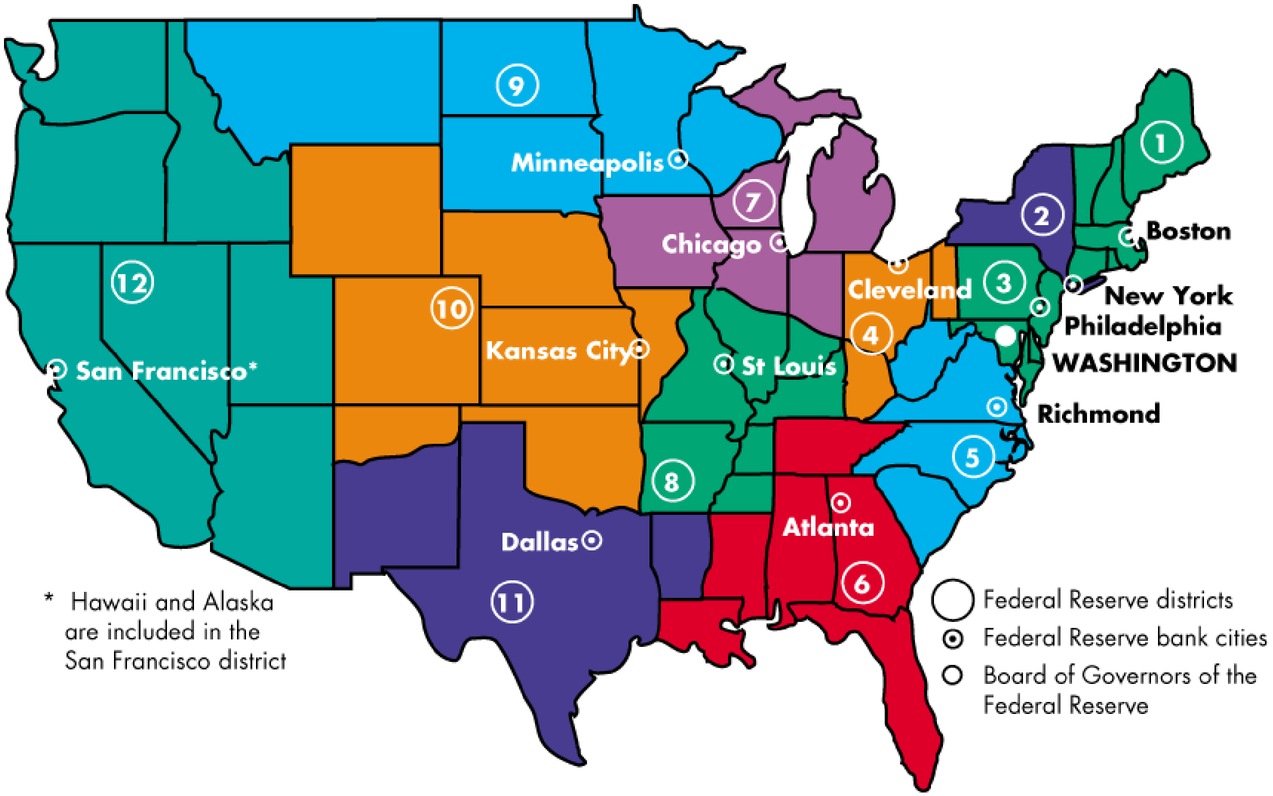


Federal Open Market Committee

- Board of governors (7 appointees)
- President of the New York Federal Reserve district bank
- Four presidents of the other regional Federal Reserve district banks (rotate)
- This group of 12 makes decisions for monetary policy
- Meet every six weeks
- FOMC Meeting Calendar
  (Includes meeting schedule, official statements, press conferences, meeting minutes)

Federal Reserve Districts

- Federal Reserve Board of Governors (part of federal government)
- Twelve Federal Reserve Districts, each with a federal reserve bank
- Federal Reserve District Banks are **not** part of the government
- Private non-profit corporations owned by member banks
- Profits are donated to the U.S. Treasury at the end of every year
- New York Fed implements monetary policy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Boston
New York
Philadelphia
WASHINGTON
Richmond
Cleveland
Chicago
Minneapolis
St Louis
Kansas City
Atlanta
Dallas
San Francisco*
* Hawaii and Alaska are included in the San Francisco district
Federal Reserve districts
Federal Reserve bank cities
Board of Governors of the Federal Reserve

Federal Reserve Districts

Functions of Federal Reserve Banks

- Provide Automatic Clearing House (ACH), wire transfers, and check clearing services
- Issue new currency / Withdraw damaged currency
- Provide discount loans to banks in their district
- Supervise commercial banks within their district
- Evaluate proposals for bank mergers and expansion of services
- Collect data and report on local and national economic conditions
- Hold reserve deposits for banks in their district, pay interest on reserves
- Each is overseen by board of directors from their region. The members contribute regional business experience, community involvement, and leadership

Central Bank Independence

- Federal Reserve is largely independent from whims of politicians
- Board of governors are appointed by President and approved by Senate
- Board of governors have long terms (14 years)
- FOMC includes Federal Reserve District Presidents, which are not government appointees or employees
- Fed does not use tax dollars - earned net income $58.4 billion in 2022
- Legislation that structures Federal Reserve and its goals was written by Congress, they can change it

Case for Independence

- Policy for successfully meeting *long-term* goals can negative *short-term* consequences
  - Example: Paul Volcker fighting inflation (CPI inflation reached peak of 14.5% in 1980)
  - Very high interest rates over 1979-1982 (in 1981, the Federal Funds Rate was 19%)
  - Brought down inflation, and created two big recessions
  - Long period of stability in both unemployment and inflation followed (1983-2008)
- Independence removes pressure to finance federal government budget deficits
- Hyperinflation episodes in Venezuala (2017-2021), Zimbabwe (2007-2009), Weimar Germany (1921-1923) were caused by central banks expanding money supply to finance growing government deficits
- Berger, de Haan, and Eijffinger (2008): Reviews 20 years of literature and provides new robust evidence that greater independence results in lower inflation across the world

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