Central Banks and Federal Reserve System

Economics 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.

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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

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.

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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.

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High Level of 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
- 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.

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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:
  - Firms to invest in new capital, higher future production possibilities.
  - Consumers to save more (in equilibrium saving = investment).

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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)

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Hierarchical and Dual Mandates

- **Hierarchical mandate:** explicit statement by a central bank that inflation stability is their first priority
- 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
- Dual mandates can lead to time consistency problems:
  - Central banks may prioritize short-term goals of stimulating an economy over long-term stability
  - Can result in higher inflation if central bank is perceived as sacrificing inflation stability for other objectives
  - Maintaining credibility that the central bank will maintain low stable inflation is crucial for effective monetary policy

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Scholar Spotlight!

The Taylor Principles, *Journal of Macroeconomics*, December 2019
Alex Nikolsko-Rzhevskyy, David Pappell, 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

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

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

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
- Chair person's salary = $246,400 (2024, set by congress)
- By law, appointments must result in “fair representation of the financial, agricultural, industrial, and commercial interests and geographical divisions of the country”

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- By law, appointments must result in "fair representation of the financial, agricultural, industrial, and commercial interests and geographical divisions of the country"

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
- Chair person's salary = $246,400 (2024, set by congress)
- 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: Past

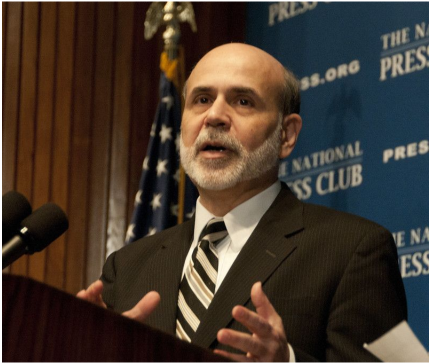
Janet Yellen

- 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



Federal Reserve Chair: Past

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

Federal Reserve Chair: Past

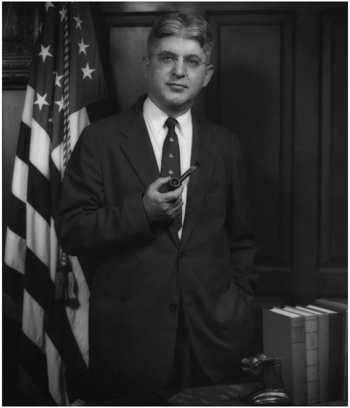
George William Miller

- In office: 1978-1979
- Appointed by Pres. Jimmy Carter in 1978 (D)
- Resigned in 1979

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
- Website: https://www.federalreserve.gov/monetarypolicy/fomccalendars.htm
  (Includes meeting schedule, official statements, subsequent press conferences, meeting minutes)

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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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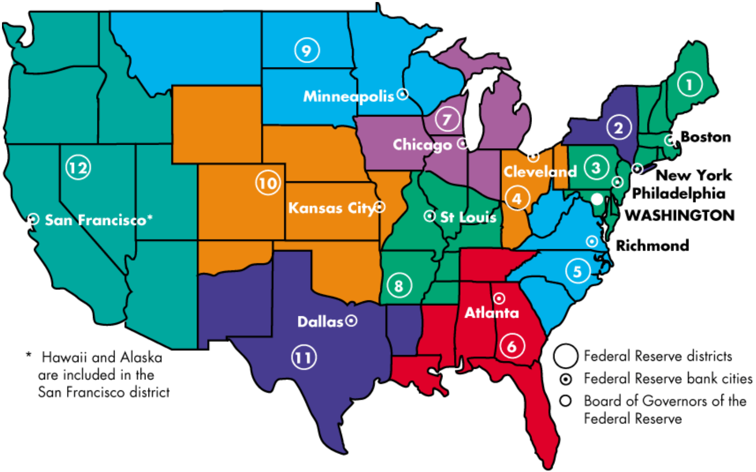

Federal Reserve Districts

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

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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

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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
- 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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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.