



# Monetary Policy & The Fed

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1

## National Economic Education Delegation

- **Vision**

- One day, the public discussion of policy issues will be grounded in an accurate perception of the underlying economic principles and data.

- **Mission**

- NEED unites the skills and knowledge of a vast network of professional economists to promote understanding of the economics of policy issues in the United States.

- **NEED Presentations**

- Are nonpartisan and intended to reflect the consensus of the economics profession.



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2

2

# Who Are We?

## • Honorary Board: 54 members

- 2 Fed Chairs: Janet Yellen, Ben Bernanke
- 6 Chairs Council of Economic Advisers
  - o Furman (D), Rosen (R), Bernanke (R), Yellen (D), Tyson (D), Goolsbee (D)
- 3 Nobel Prize Winners
  - o Akerlof, Smith, Maskin

## • Delegates: 652+ members

- At all levels of academia and some in government service
- All have a Ph.D. in economics
- Crowdsource slide decks
- Give presentations

## • Global Partners: 48 Ph.D. Economists

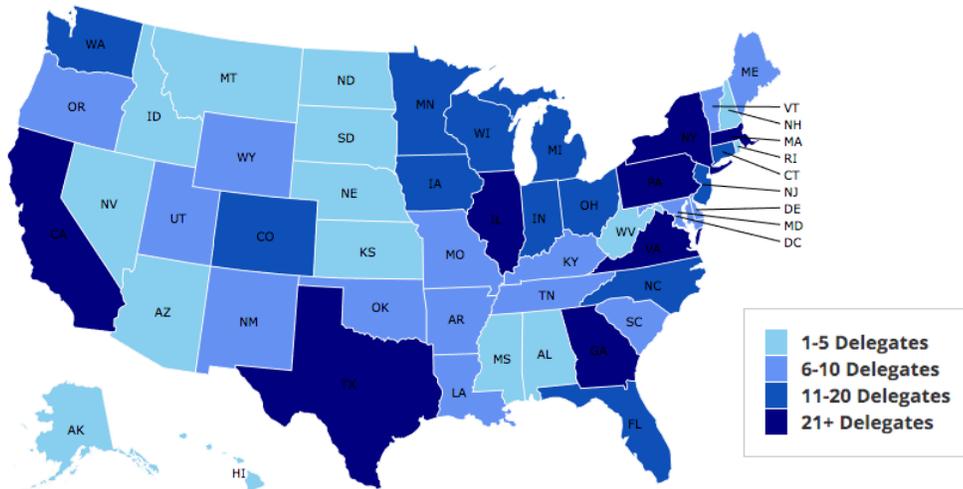
- Aid in slide deck development



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3

# Where Are We?



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4

## Available NEED Topics Include:

- Healthcare Economics
- US Economy
- Climate Change
- Economic Inequality
- Economic Mobility
- Trade and Globalization
- Minimum Wages
- Immigration Economics
- Housing Policy
- Federal Budgets
- Federal Debt
- Black-White Wealth Gap
- Autonomous Vehicles
- US Social Policy



5

## Outline for the Talk

1. History of the origin and development of central banks
2. The economic determinants of inflation and unemployment.
3. The Fed's policy tools for influencing interest rates and thereby affecting aggregate demand and the economy.
4. A closer look at changes that Chair Powell made in Fed policy that contributed to the run up in inflation.
5. The September 20-21 Fed monetary policy meeting and what comes next.



6

## What Is a Central Bank?

### 1. Government's Bank.

- a. Regulate currency and manage the payment system.
- b. Help with government finance.

### 2. "Lender of Last Resort" (LOL) in financial crises.

### 3. Responsible for stabilizing the macro economy: i.e., low, stable inflation and full employment



7

## Origins

- Sveriges Riksbank (Sweden), 1668, currency regulation.
- Bank of England, 1694, debt finance for the War of Grand Alliance.
- Banks of the US, First (1791-1811) and Second (1816-1836) did a little of both.



8

## Financial Crises in the 19<sup>th</sup> Century

- Financial Panics (and recessions) in the 19<sup>th</sup> century: 1819, 1837, 1857, 1873, 1893.
- Financial Panics are caused by a shortage of *liquidity*.
- **illiquidity**: the value of liquid assets (cash, short-term Treasuries) are less than the value of liquid liabilities (short-term debt, bank deposits)
- **Insolvency**: the value of assets is less than liabilities, so unless things change, the liabilities will not be paid off.



## Illiquidity Can Lead to Insolvency

- **Most banks are technically illiquid, which is not a problem in normal times because money is being deposited to offset the money that is being withdrawn.**
- **But during a panic solvency is no guarantee of survival (As George Bailey learned in *It's a Wonderful Life*)**
- **To meet pressing demands for cash, the bank may have to sell assets in a "fire sale," leading to insolvency and a bank failure.**



## Walter Bagehot's and his Famous Dictum

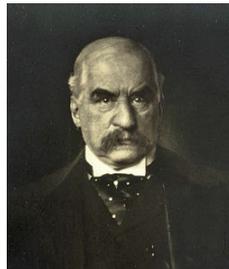
- **Walter Bagehot (1826-77): *Lombard Street*, 1873**
- **Save the solvent institutions while allowing the insolvent to fail.**
- **His “Dictum” during a panic the Central Bank should:**
  1. Lend freely,
  2. At a high interest rate,
  3. To solvent institutions,
  4. On good collateral.



11

## JP Morgan, “Lender of Last Resort?” (LOLR)

- October 1907, JP Morgan cuts short his vacation to deal with a financial panic
  - Market falls by 50%
  - Runs on banks threaten a complete collapse of financial markets.
- Morgan calls a number of bankers to his offices to pledge money to provide liquidity to markets.



12

## The Aftermath: Federal Reserve Act of 1913

- **Original Roles of the Fed**

1. Oversee Currency & Regulate Banks; 2. *Lender of Last Resort*.

- **Great Depression and the Banking Panics of the 30s**

- Fed fails miserably.
- RFC lent more money to the banks than did the Fed

- **Footnote on later LOL Roles:**

1. 2008: Bernanke saves the world, but Congress is not happy.
2. 2020: Powell goes even bigger, but the verdict is still out.



13

## The Evolution of the Fed's Role in the Macro Economy

- **Employment Act of 1946**

1. "Full employment" is a Executive Government Responsibility.
2. Council of Economic Advisors.
3. Economic Report of the President.

- **Humphrey Hawkins Act 1978 & the Fed's "Dual" mandate**

- Full employment
- Price stability

- **Division of Labor between Monetary and Fiscal Policies.**



14

## Stabilizer in Chief: the Fed



Jerome Powell  
February 2018

on Price Index

### • The Fed’s Dual Mandate:

1. “Stable prices” which means 2% rate of inflation in the long run (which corresponds to about 2.5% inflation in the medium run)
2. “Maximum employment” which means the highest level of employment (lowest unemployment rate) consistent with mandate 1.

• **Monetary policy is made by the Federal Open Market Committee (FOMC), comprised of the 7 Fed Governors and 5 of the 12 Presidents of the Regional Federal Reserve Banks on a rotating basis.**

• **The FOMC has scheduled meetings 8 times a year, but can hold unscheduled meetings at a moments notice (e.g., March of 2020)**

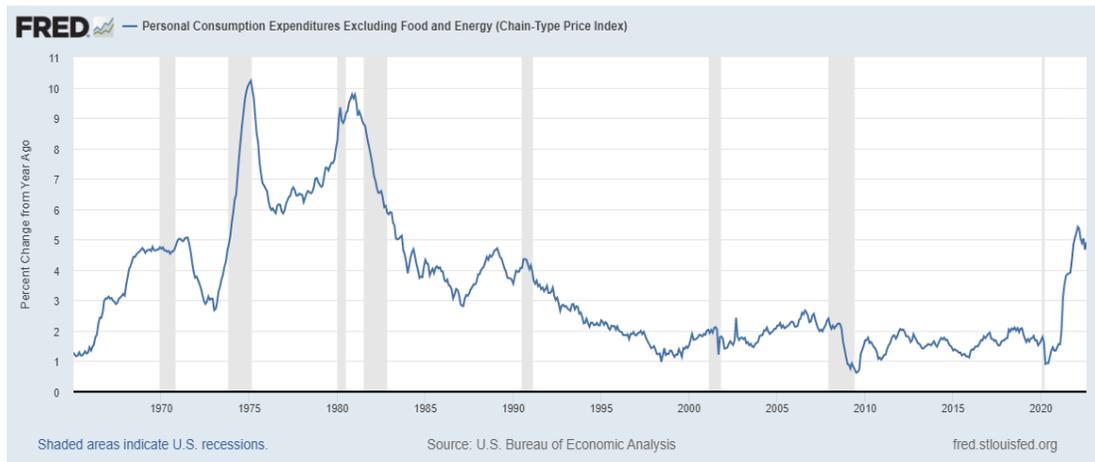
15

## Track Record on Unemployment



16

## Track Record on “Price Stability”



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17

17

## Determinants of Unemployment & Inflation

### Short run:

- **Unemployment:** The higher the level of total spending the lower the unemployment rate.
- **Inflation:**
  1. “Too much Spending:” Total spending above the economy’s normal capacity (“potential output”) tends to *increase* inflation.
  2. Increase in production costs (e.g., “supply chain bottlenecks.”)
  3. Expectations of high inflation can cause inflation to be high.



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18

## Determinants of Unemployment & Inflation

**Long run: what the economy would look like if real GDP were at potential (average behavior of the economy over a number of years):**

- **Unemployment: Is determined by labor supply and demand and is independent of monetary policy; unemployment will be at the natural rate.**
- **Inflation is totally determined by the Fed!**



## The Fed's Affects the Economy via Interest Rates

- **Higher Interest rates discourage firms from buying new plant and equipment, households from buying new homes, and tend to lower stock and prices (!).**
- **Lower spending tends to raise unemployment and eventually lowers inflation.**



## Become a Central Banker in One Slide!

- If you are more concerned that inflation is too high, raise interest rates.
- If you are more concerned that unemployment is too high, lower interest rates.
- Inflation and unemployment just right: keep rates the same.



21

## One Big Complication: Lags

- Milton Friedman: Monetary Policy affects GDP and Inflation with Long and Variable (Unpredictable) Lags.
- Raising interest rates today does nothing to spending today nor to inflation.
- But over time spending slows and eventually inflation falls.
- Friedman believed that lags led to the Fed to “oversteering” the economy consistently.



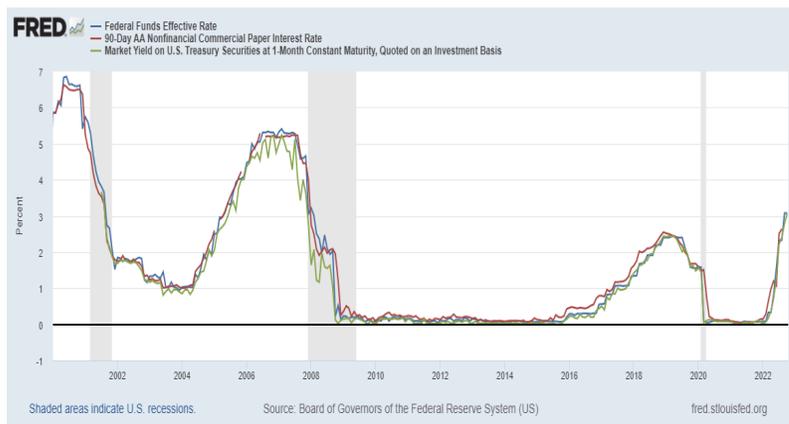
22

## A Closer Look at Interest Rate Control

- **Primary Tool:** the Fed targets the *federal funds rate* (or fed funds rate for short), the interest rate on overnight loans between banks.
- The Fed adjusts bank reserves so that the federal funds rate is within a target range 25 basis points wide.
- From the bank’s perspective these loans are very close substitutes to other short-term, safe assets such as Treasury Bills.
- Therefore, controlling the fed funds rate gives the Fed close control over all safe, *short-term* interest rates.

23

## The Fed and Short-term Interest Rates



Blue is the fed funds rate.  
 Green is the rate on 3-month commercial paper  
 Red is the rate on 1 month Treasuries

24

# What about the Money Supply?

**Notice the absence of the money supply. The Fed does not believe there is a reliable, short-run link between the money supply and total spending or inflation.**

**The Minutes of the 9/20-21/2022 FOMC Meeting mentions:**

- Money Supply, M1, M2 – 0 times
- Federal funds rate – 15 times

25

# Do You See a Relationship?



26

## “Don’t Listen to This Nonsense”

Robert Bartley, Editor of the Editorial page of the *Wall Street Journal* in the 1980s (paraphrased):

“Ronald Reagan proved that economists know nothing about inflation and unemployment. During his first term he was able to do what economists said was impossible: simultaneously reducing inflation and unemployment.”

What do you think would be my response?

27

## The Importance of Long-Term Interest Rates

- Nobody buys a house because of the level of 1-yr interest rates, and unfortunately, the current federal funds rate has much less influence on the rates that matter.



28

## Long-Term Interest Rates

- **Unfortunately, the current fed funds rate has much less influence on long term interest rates.**
- **Instead, long-term interest rates depend on two factors**
  1. The average of expected, future short-term rates over the life of the long-term bond.
  2. “Risk” premia that reflect the possibility of unexpected changes in interest rates and the possibility of default.
- **The Secondary Tools are aimed at affecting these factors.**



29

## Two Secondary Tools to Affect Interest Rates

1. **Forward Guidance: Communicating the Fed’s intentions for the future path of short-term interest rates.**
2. **Long-term Asset Purchases better known as quantitative easing or QE.**

**Both of these tools also affect interest rates, and thereby aggregate demand. But their effect is on the interest rates of longer-term and riskier assets.**



30

## Forward Guidance

The Fed “guides” financial market participants about what they intend to do in the future. From the 9/20-21/22 Policy Statement:

“Participants reaffirmed their strong commitment to returning inflation to the Committee’s 2 percent objective, with many stressing **the importance of staying on this course even as the labor market slowed.**”

“In support of these goals, the Committee decided to raise the target range for the federal funds rate to 3 to 3¼ percent and anticipates **that ongoing increases in the target range will be appropriate.**”



31

## Where is 8:30 on the Chart & Why?



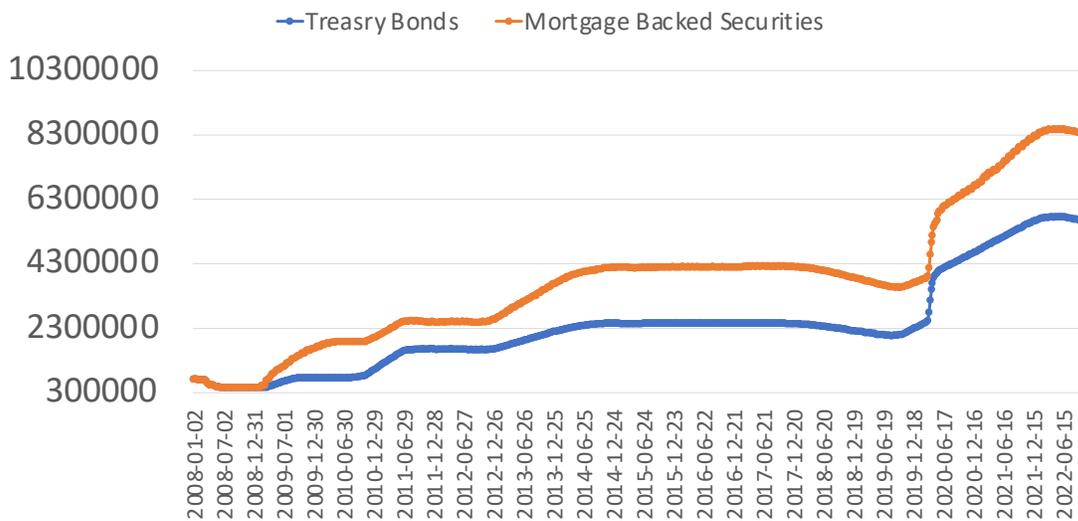
32

## QE And Long-term, Risky Rates

- Financial investors require a higher interest rate on risky bonds, than on safe short-term Treasuries.
- The greater the supply of risky bonds, the higher the required risk premia needed to get enough private investors to buy them.
- QE lowers the supply of long-term bonds held by private investors and thereby lowers to required risk premia and the interest rate on these bonds.
- QE is particularly important when the federal funds rate has hit the zero (ZLB)

33

## QE Has Been a Big Deal



Source: Federal Reserve Board

34

## A Policy Strategy: Stabilize Expectations of Inflation

- Monetary Policy is much easier if the people believe that the Fed will achieve its inflation target.

**Ben Bernanke (2007):**

”...if inflation expectations respond less than previously to variations in economic activity, then inflation itself will become relatively more insensitive to the level of activity...”

- In central bank jargon, stable expectations are “well anchored.”



35

## Anchoring Requires Credibility

**Credibility, the public believes that the Fed will achieve its goals.**

- **Requirements for Credibility**
  1. Transparency (Communication)
  2. Accountability (Performance)
  3. Political Independence

**Things to think about: The Fed through monetary policy has the most influence on the short-run behavior of the economy. These governmental decisions are made “technocratically” and not democratically. Is that a problem?**



36

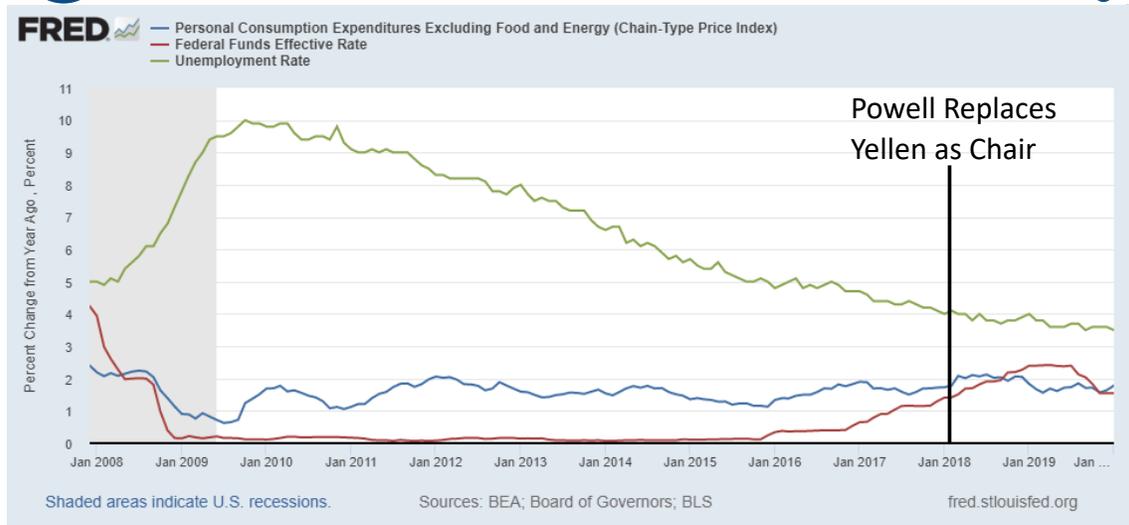
# The Great Moderation

- Volcker paid a price in the early 1980s, but the price paid dividends from 1990 through 2008.
- During that period the performance of the US economy was extraordinary and even Milton Friedman gave kudos to the Alan Greenspan.
- Has Powell jeopardized Volcker’s legacy?



37

# Why Did Powell Do It?



38

## Policy Changes under Powell

- In the Fed's dual mandate put more emphasis on the employment goal relative to the inflation goal.
- Inflation goal switched from targeting forecasted *future* inflation to trying to achieve average *realized* inflation of 2%

Have they forgotten about Lags!



## OK But What Explains Powell's Reversal?

"I knew Paul Volcker," Powell responded. "I think he was one of the great public servants of the era — the greatest economic public servant of the era." Making clear that his own legacy was on his mind, Powell continued, "I hope that history will record that the answer to your question is yes." Peter Coy, *NYTimes*, "*Economic Theory Alone May Not Explain Jerome Powell's Actions*," 9/23/2022

Could Powell be "Oversteering?"  
(Larry Summers doesn't think so)



# Is Powell Channeling Volcker?

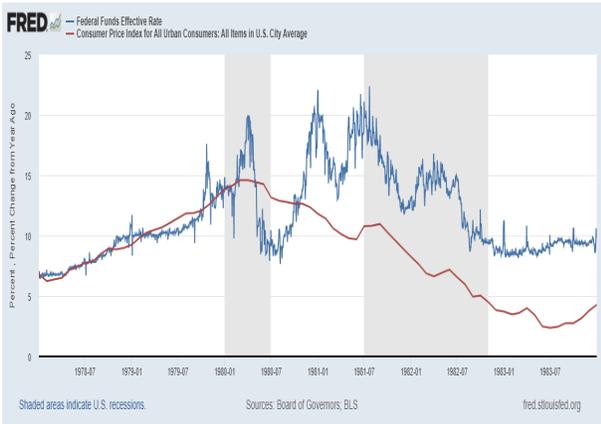
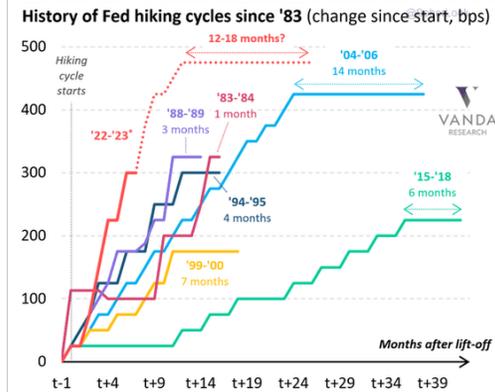


Chart 1: Not only is this the most aggressive hiking cycle since '83... the Fed may also keep rates steady for longer



41

# Parallels and Differences

- Secular rise in inflation over the preceding months.
- Bad luck with “supply disruptions.”
- Public statements that the Fed will do whatever necessary to bring inflation down.
- ROW effects of higher US interest rates
  - Volcker inflation started from a much higher rate.
  - Inflationary expectation were much higher for Volcker
  - Rates rose more rapidly and exceeded inflation under Volcker.

What’s Ahead, at least what the Fed thinks

42

## Fed Economic Projections

Percent

Variable	Median <sup>1</sup>				
	2022	2023	2024	2025	Longer run
Change in real GDP	0.2	1.2	1.7	1.8	1.8
June projection	1.7	1.7	1.9		1.8
Unemployment rate	3.8	4.4	4.4	4.3	4.0
June projection	3.7	3.9	4.1		4.0
PCE inflation	5.4	2.8	2.3	2.0	2.0
June projection	5.2	2.6	2.2		2.0
Core PCE inflation <sup>4</sup>	4.5	3.1	2.3	2.1	
June projection	4.3	2.7	2.3		

43

## WSJ October Economic Forecasting Surve

Variable Averages	2022	2023	2024	2025	Longer Run
Change in Real GDP	0.2	0.4	1.8	2.1	1.9
July Forecast	0.7	1.1	2.1		1.9
Unemployment Rate	3.7	4.7	4.6	4.3	4.0
July forecast	3.8	4.3	4.4		3.9
PCE Inflation	5.7	3.1	2.3	2.2	
July Forecast	3.3	2.9	2.3		
Core PCE inflation	4.8	3.2	2.3	2.2	2.2
July forecast	4.5	2.9	2.3		2.2

44

## Forecasts for the Fed Funds Rate

Variable Averages					
	2022	2023	2024	2025	Longer Run
<b>FOMC</b>					
Federal funds rate	4.4	4.6	3.9	2.9	2.5
July Forecast	3.4	3.8	3.4		2.5
<b>WSJ, October Survey</b>					
Federal funds rate	4.3	4.2	3.1	2.8	2.6
July Forecast	3.3	3.3	2.8		2.6



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45

45

## Now, it is Your Turn

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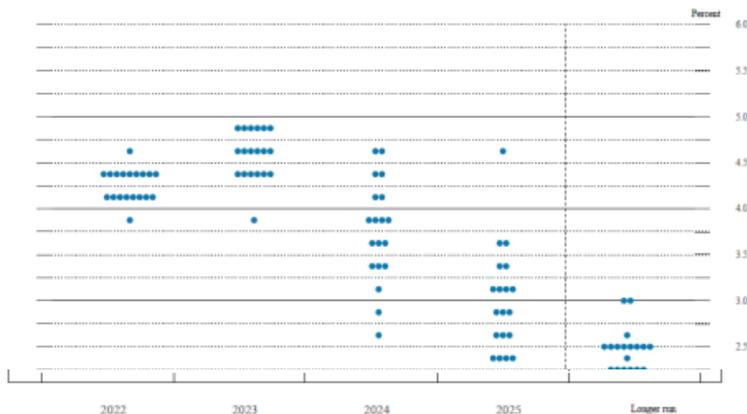
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46

46

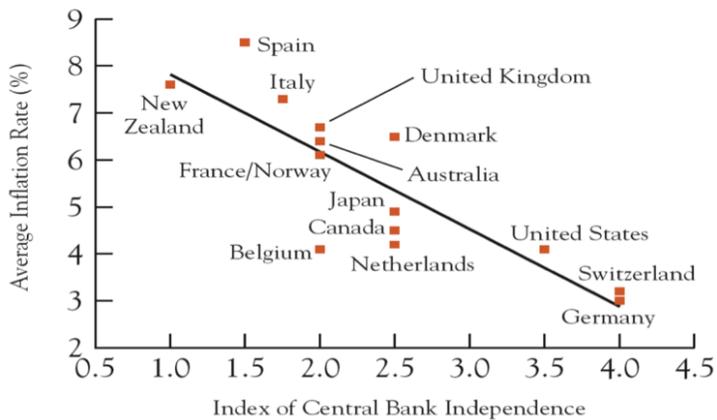
# The Infamous Dot Plot

Figure 2. FOMC participants' assessments of appropriate monetary policy: Midpoint of target range or target level for the federal funds rate



47

# The Most Influential Graph in My Lifetime



48

# But This Graph Is Important Too

Figure 4  
Variance of Real GNP Growth: 1955-1987

