Alternative Perspectives on Stabilization Policy

Chapter 18

Econ 313 – Intermediate Macroeconomics

University of Tennessee, Knoxville

July 2, 2026

IN THIS CHAPTER, YOU WILL LEARN:

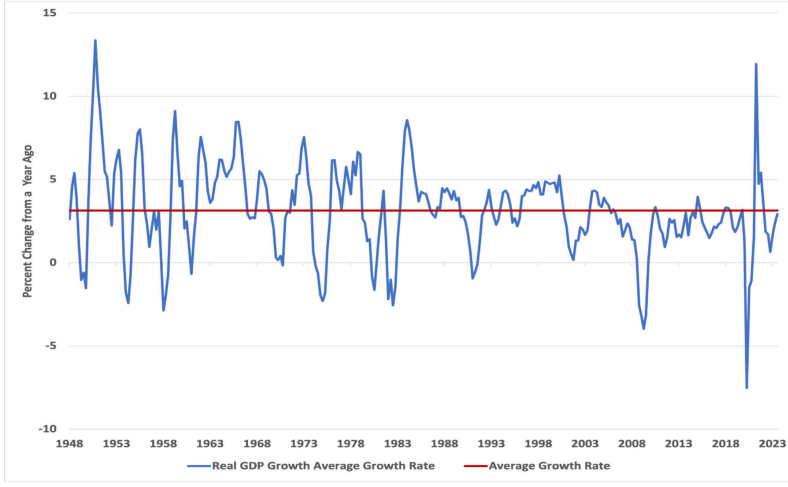
About two policy debates:

- Should policy be active or passive?
- Should policy be by rule or discretion?

Question 1

- Should policy be active or passive?

Growth rate of U.S. real GDP



Increase in unemployment during recessions

Peak	Trough	Increase in no. of unemployed persons (millions)
July 1953	May 1954	2.11
August 1957	April 1958	2.27
April 1960	February 1961	1.21
December 1969	November 1970	2.01
November 1973	March 1975	3.58
January 1980	July 1980	1.68
July 1981	November 1982	4.08
July 1990	March 1991	1.67
March 2001	November 2001	1.50
December 2007	June 2009	6.14
February 2020	April 2020	17.36

Arguments for active policy

- Recessions cause economic hardship for millions of people.
- The Employment Act of 1946: "It is the continuing policy and responsibility of the Federal Government to . . . promote full employment and production."
- The model of aggregate demand and supply (Chapters 12–16) shows how fiscal and monetary policy can respond to shocks and stabilize the economy.

Arguments against active policy

Policies act with long and variable lags, including:

- **inside lag**:the time between the shock and the policy response.
  - takes time to recognize shock
    - takes time to implement policy, especially fiscal policy
  - **outside lag**:the time it takes for policy to affect economy.
- *If conditions change before policy's impact is felt, the policy may destabilize the economy.*

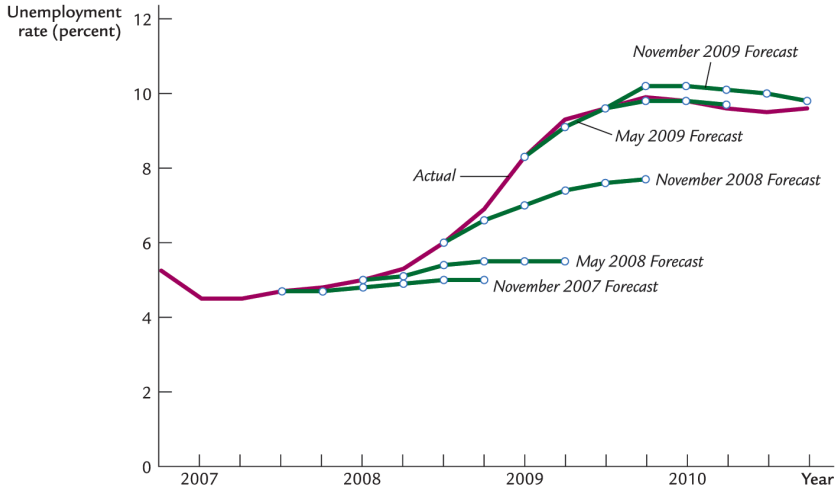
Automatic stabilizers

- Definition:policies that stimulate or depress the economy when necessary without any deliberate policy change
- Designed to reduce the lags associated with stabilization policy
- For example:
  - Income tax
  - Unemployment insurance
  - Welfare

Forecasting the macroeconomy, part 1

- Because policies act with lags, policymakers must predict future conditions.
- Two ways economists generate forecasts:
  - *Leading economic indicators (LEI)*data series that fluctuate in advance of the economy
  - *Macroeconometric models*large-scale models with estimated parameters that can be used to forecast the response of endogenous variables to shocks and policies

Mistakes forecasting the 2008–2009 recession



Forecasting the macroeconomy, part 2

- Because policies act with lags, policymakers must predict future conditions.
- *The preceding slides show that the forecasts are often wrong.*
- *This is one reason why some economists oppose policy activism.*

The Lucas critique

- Due to Robert Lucas who won Nobel Prize in 1995 for his work on rational expectations
- Forecasting the effects of policy changes has often been done using models estimated with historical data.
- Lucas pointed out that such predictions would not be valid if the policy change alters expectations in a way that changes the fundamental relationships between variables.

An example of the Lucas critique

- Prediction (based on past experience):An increase in the money growth rate will reduce unemployment.
- The Lucas critique points out that increasing the money growth rate may raise expected inflation, in which case unemployment would not necessarily fall.

The Jury's out . . .

Looking at recent history does not clearly answer, "Should policy be active or passive?":

- It's hard to identify shocks in the data.
  - It's hard to tell how outcomes would have been different had actual policies not been used.

Question 2

- Should policy be conducted by rule or discretion?

Rules and discretion: Basic concepts

- *Policy conducted by rule:*Policymakers announce in advance how policy will respond in various situations and commit themselves to following through.
- *Policy conducted by discretion:*As events occur and circumstances change, policymakers use their judgment and apply whatever policies seem appropriate at the time.

Arguments for rules, part 1

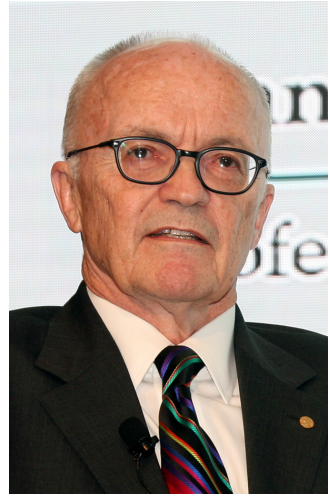
- Distrust of policymakers and the political process
  - misinformed politicians
  - politicians' interests sometimes not the same as the interests of society

Arguments for rules, part 2

- **The time inconsistency of discretionary policy**
  - **Definition**: A scenario in which policymakers have an incentive to renege on a previously announced policy once others have acted on that announcement.
  - Destroys policymakers' credibility, thereby reducing effectiveness of their policies.

Examples of time inconsistency

- **1.** To encourage investment, the government announces it will not tax income from capital.
- But once the factories are built, the government reneges in order to raise more tax revenue.
- **2.** To reduce expected inflation, the central bank announces it will tighten monetary policy.
- But faced with high unemployment, the central bank may be tempted to cut interest rates.
- **3.** Aid is given to poor countries contingent on fiscal reforms.
- The reforms do not occur, but aid is given anyway, because the donor countries do not want the poor countries' citizens to starve.



Finn E. Kydland,
2004 Nobel laureate
(with E. C. Prescott)
for the theory of

Monetary policy rules

- Constant money supply growth rate
  - Advocated by monetarists
  - Stabilizes aggregate demand only if velocity is stable
- Target growth rate of nominal GDP
  - Automatically increases money growth whenever nominal GDP grows slower than targeted; decreases money growth when nominal GDP growth exceeds target
- Target the inflation rate
  - Automatically reduces money growth whenever inflation rises above the target rate
  - Many countries' central banks now practice inflation targeting but allow themselves a little discretion.
  - Should the Federal Reserve change its inflation target of 2 percent?

Inflation targeting: a rule or constrained discretion?

- Many central banks officially adopted inflation targeting in the early 1990s
- Is inflation targeting a type of commitment to a policy rule?
- Not exactly a rigid rule. Central banks have some discretion on how to achieve their target of inflation.
- But the policy objective constrains how central banks can use discretion to operate.
- Inflation targeting can be viewed as a form of constrained discretion.

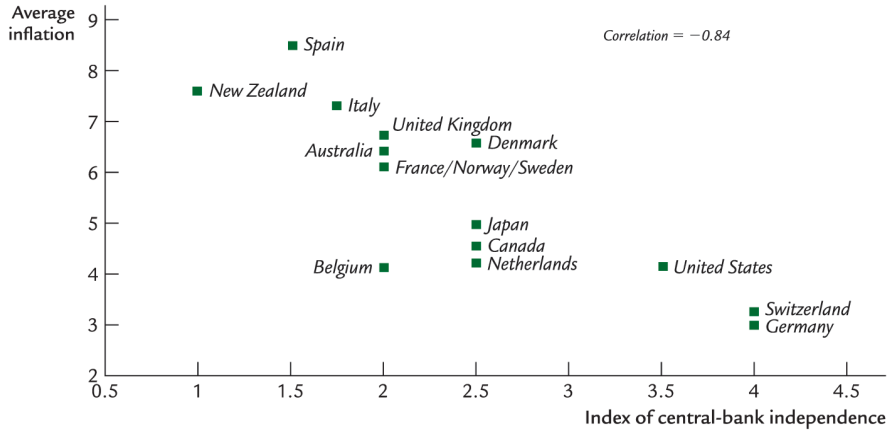
Central bank independence

- Central bank independence: The ability of the central bank to make decisions without the interference of politicians and the nation's government
- A policy rule announced by central bank will work only if the announcement is credible.
- Credibility depends in part on degree of independence of central bank.



Janet Yellen —
Fed Chair 2014–2018,
later Treasury Secretary.
Champion of the
Fed's independence.
Federal Reserve /

Inflation and central bank independence



CHAPTER SUMMARY, PART 1

Advocates of active policy believe:

- frequent shocks lead to unnecessary fluctuations in output and employment.
  - fiscal and monetary policy can stabilize the economy.
- Advocates of passive policy believe:
  - the long and variable lags associated with monetary and fiscal policy render them ineffective and possibly destabilizing.
  - inept policy increases volatility in output, employment.

CHAPTER SUMMARY, PART 2

Advocates of discretionary policy believe:

- discretion gives more flexibility to policymakers in responding to the unexpected.
- Advocates of policy rules believe:
  - the political process cannot be trusted: Politicians make policy mistakes or use policy for their own interests.
  - commitment to a fixed policy is necessary to avoid time inconsistency and maintain credibility.

Appendix: Time inconsistency — the monetary game

Setup. A short-run Phillips curve

$$u = u^n - \tfrac{1}{2}(\pi - \pi^e),$$

so surprise inflation ($\pi > \pi^e$) temporarily lowers u below the natural rate $u^n = 5\%$.
Fed's loss function (dislikes u above 3% and π above 0):

$$\mathcal{L} = (u - 3)^2 + \tfrac{1}{4}\pi^2.$$

So Fed *wants* $u = 3$, well below the natural rate, and $\pi = 0$.
Ideal (commitment) outcome. If Fed could commit and everyone believes it: $\pi = 0 = \pi^e$, so $u = u^n = 5$. Loss: $(5 - 3)^2 + 0 = 4$.

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Appendix — the discretion trap

Take π^e as given. Fed picks π to minimize:

$$\mathcal{L}(\pi) = \left(5 - \tfrac{1}{2}(\pi - \pi^e) - 3\right)^2 + \tfrac{1}{4}\pi^2.$$

FOC: $\partial\mathcal{L}/\partial\pi = 0$ gives

$$\pi^* = \tfrac{1}{2}\left(2 + \tfrac{1}{2}\pi^e\right) \cdot 2 = 2 + \tfrac{1}{2}\pi^e.$$

Rational expectations. Public knows the rule, so $\pi^e = \pi^*$:

$$\pi^e = 2 + \tfrac{1}{2}\pi^e \implies \pi^* = \pi^e = 4\%.$$

Equilibrium outcomes.

- $\pi = \pi^e = 4$: no surprise, so $u = u^n = 5$.
- Loss: $(5-3)^2 + \frac{1}{4}(16) = 4 + 4 = 8$.

Compared to commitment ($\mathcal{L} = 4$), discretion doubles the loss.

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Appendix — lessons

Regime	π	u	Loss $\mathcal{L}$
Commitment (rules)	0%	5%	4
Discretion (equilibrium)	4%	5%	8

Same real outcome ($u = u^n$), but discretion buys *extra inflation* for nothing — the temptation to inflate keeps expectations elevated.
Fixes in practice:

- An **independent** central bank (a hawkish appointment).
- An **inflation target** (a promise the public can punish if broken).
- A **policy rule** such as Taylor's.

This is why every major central bank since the 1990s has adopted inflation targeting + independence — to hard-wire "commitment."

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