

macro

CHAPTER FOURTEEN
Stabilization Policy

macroeconomics
fifth edition

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PowerPoint® Slides
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Learning objectives


In this chapter, you will learn about two policy debates:

1. Should policy be active or passive?
2. Should policy be by rule or discretion?

CHAPTER 14 Stabilization Policy slide 1

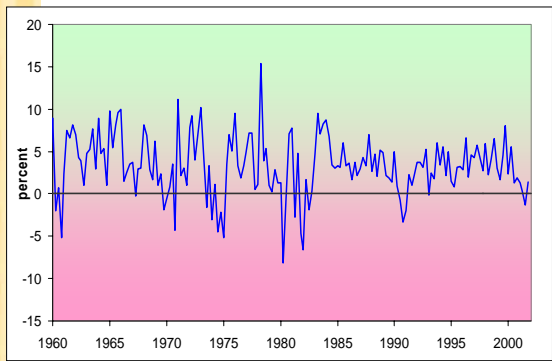
Question 1:

Should policy be active or passive?



CHAPTER 14 Stabilization Policy slide 2

U.S. Real GDP Growth Rate, 1960:1-2001:4



CHAPTER 14 Stabilization Policy

slide 3

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 9-13) shows how fiscal and monetary policy can respond to shocks and stabilize the economy.

CHAPTER 14 Stabilization Policy

slide 4

Change in unemployment during recessions

peak	trough	increase in no. of unemployed persons (millions)
July 1953	May 1954	2.11
Aug 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

CHAPTER 14 Stabilization Policy

slide 5

Arguments against active policy

1. Long & variable lags

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, then policy may end up destabilizing the economy.

Automatic stabilizers

- definition: policies that stimulate or depress the economy when necessary without any deliberate policy change.
- They are designed to reduce the lags associated with stabilization policy.
- Examples:
 - income tax
 - unemployment insurance
 - welfare

Forecasting the macroeconomy

Because policies act with lags, policymakers must predict future conditions.

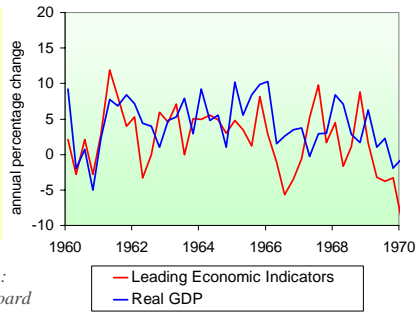
Ways to generate forecasts:

- *Leading economic indicators:* 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

The LEI index and Real GDP, 1960s

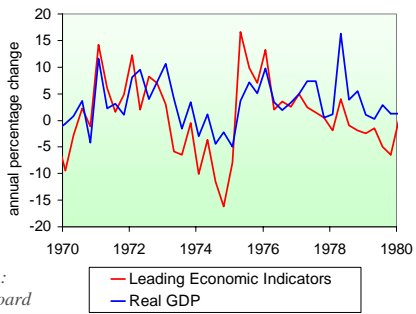
The Index of Leading Economic Indicators includes 10 data series (see FYI box on p.383).

source of LEI data: The Conference Board



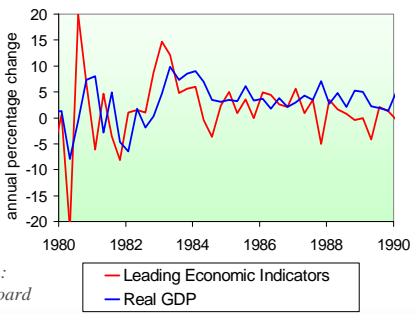
The LEI index and Real GDP, 1970s

source of LEI data: The Conference Board

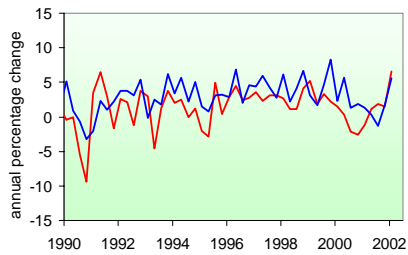


The LEI index and Real GDP, 1980s

source of LEI data: The Conference Board



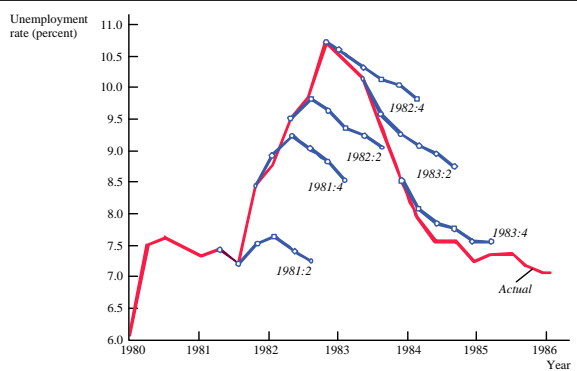
The LEI index and Real GDP, 1990s



source of LEI data:
The Conference Board

— Leading Economic Indicators
— Real GDP

Mistakes Forecasting the Recession of 1982



Forecasting the macroeconomy

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 won Nobel Prize in 1995 for “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.

CHAPTER 14 Stabilization Policy

slide 15

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.

CHAPTER 14 Stabilization Policy

slide 16

The Jury's Out...

Looking at recent history does not clearly answer Question 1:

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

CHAPTER 14 Stabilization Policy

slide 17

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

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

Arguments for Rules

2. The Time Inconsistency of Discretionary Policy

- def: 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-Inconsistent Policies

To encourage investment, government announces it won't tax income from capital.

But once the factories are built, the govt reneges in order to raise more tax revenue.

Examples of Time-Inconsistent Policies

To reduce expected inflation, the Central Bank announces it will tighten monetary policy.

But faced with high unemployment, Central Bank may be tempted to cut interest rates.

Examples of Time-Inconsistent Policies

Aid to poor countries is contingent on fiscal reforms.

The reforms don't occur, but aid is given anyway, because the donor countries don't want the poor countries' citizens to starve.

CHAPTER 14 Stabilization Policy

slide 24

Monetary Policy Rules

- a. Constant money supply growth rate
 - advocated by *Monetarists*
 - stabilizes aggregate demand only if velocity is stable

CHAPTER 14 Stabilization Policy

slide 25

Monetary Policy Rules

- a. Constant money supply growth rate
- b. Target growth rate of nominal GDP
 - automatically increase money growth whenever nominal GDP grows slower than targeted; decrease money growth when nominal GDP growth exceeds target.

CHAPTER 14 Stabilization Policy

slide 26

Monetary Policy Rules

- a. Constant money supply growth rate
- b. Target growth rate of nominal GDP
- c. Target the inflation rate
 - automatically reduce money growth whenever inflation rises above the target rate.
 - Many countries' central banks now practice inflation targeting, but allow themselves a little discretion.

CHAPTER 14 Stabilization Policy

slide 27

Monetary Policy Rules

- a. Constant money supply growth rate
- b. Target growth rate of nominal GDP
- c. Target the inflation rate
- d. The "Taylor Rule"
Target Federal Funds rate based on
 - inflation rate
 - gap between actual & full-employment GDP

CHAPTER 14 Stabilization Policy

slide 28

The Taylor Rule

$$r_{ff} = 2 + 0.5(\pi - 2) - 0.5(\text{GDP Gap})$$

where:

i_{ff} = nominal federal funds rate

$r_{ff} = i_{ff} - \pi$ = real federal funds rate

$$\text{GDP Gap} = 100 \times \frac{\bar{Y} - Y}{Y}$$

= the percent by which real GDP is below its natural rate

CHAPTER 14 Stabilization Policy

slide 29

The Taylor Rule

$$r_{ff} = 2 + 0.5(\pi - 2) - 0.5(\text{GDP Gap})$$

- If $\pi = 2$ and output is at its natural rate, then monetary policy targets the real Fed Funds rate at 2% (and the nominal rate at 4%).
- For each one-point increase in π , mon. policy is automatically tightened to raise the real Fed Funds rate by 0.5
- For each one percentage point that GDP falls below its natural rate, mon. policy automatically eases to reduce the Fed Funds Rate by 0.5.

CHAPTER 14 Stabilization Policy

slide 30

The Taylor Rule

$$i_{ff} = \pi + 2 + 0.5(\pi - 2) - 0.5(\text{GDP Gap})$$

where:

i_{ff} = nominal federal funds rate

$$\text{GDP Gap} = 100 \times \frac{\bar{y} - y}{\bar{y}}$$

= the percent by which real GDP is below its natural rate

CHAPTER 14 Stabilization Policy

slide 31

The Taylor Rule

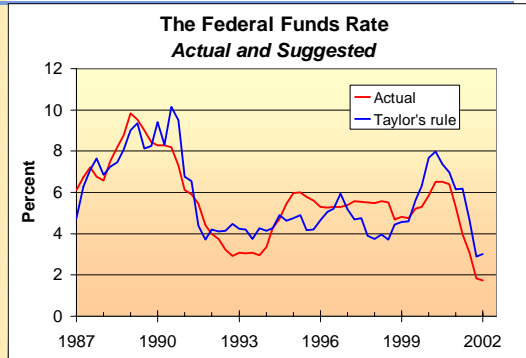
$$i_{ff} = \pi + 2 + 0.5(\pi - 2) - 0.5(\text{GDP Gap})$$

- If $\pi = 2$ and output is at its natural rate, then monetary policy targets the nominal Fed Funds rate at 4% (and the real FF rate at 2%).
- For each one-point increase in π , mon. policy is automatically tightened to raise the nominal Fed Funds rate by 1.5 (and the real FF rate by 0.5)
- For each one percentage point that GDP falls below its natural rate, mon. policy automatically eases to reduce the Fed Funds Rate by 0.5.

CHAPTER 14 Stabilization Policy

slide 32

Does Greenspan follow the Taylor Rule?



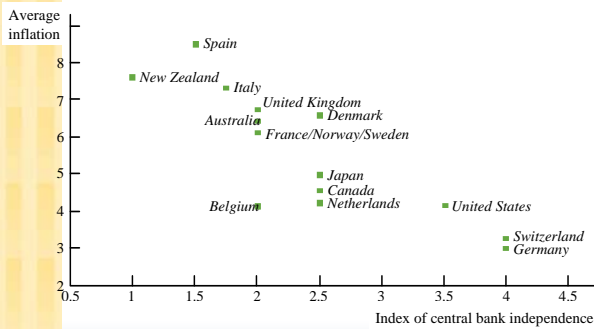
CHAPTER 14 Stabilization Policy slide 33

Central Bank Independence

- 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.

CHAPTER 14 Stabilization Policy slide 34

Inflation and Central Bank Independence



CHAPTER 14 Stabilization Policy slide 35

Chapter summary

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

CHAPTER 14 Stabilization Policy

slide 36

Chapter summary

3. Advocates of discretionary policy believe:
 - discretion gives more flexibility to policymakers in responding to the unexpected
4. 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

CHAPTER 14 Stabilization Policy

slide 37

CHAPTER 14 Stabilization Policy

slide 38
