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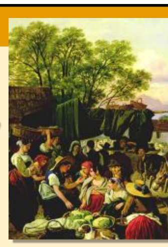
Principles of

Macroeconomics

Sixth Edition



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The Influence of Monetary and Fiscal Policy on Aggregate Demand

Premium PowerPoint Slides by Ron Cronovich

In this chapter, look for the answers to these questions:

- How does the interest-rate effect help explain the slope of the aggregate-demand curve?
- How can the central bank use monetary policy to shift the *AD* curve?
- In what two ways does fiscal policy affect aggregate demand?
- What are the arguments for and against using policy to try to stabilize the economy?

Introduction

- Earlier chapters covered:
  - the long-run effects of fiscal policy on interest rates, investment, economic growth
  - the long-run effects of monetary policy on the price level and inflation rate
- This chapter focuses on

Aggregate Demand

- Recall, the *AD* curve slopes downward for three reasons:
  - The wealth effect
  - The interest-rate effect
  - The exchange-rate effect
- Next:
  A supply-demand model that helps explain the interest-rate effect and how monetary policy affects aggregate demand.

The Theory of Liquidity Preference

- A simple theory of the interest rate (denoted ***r***)
- ***r*** adjusts to balance
- Money supply:

The Theory of Liquidity Preference

- Money demand
- For simplicity, suppose household wealth includes only two assets:
  - Money – liquid but pays no interest
  - Bonds – pay interest but not as liquid
- A household's "money demand" reflects its *preference* for *liquidity*.
- The variables that influence money demand:

Money Demand

- Suppose real income (***Y***) rises. Other things equal, what happens to money demand?
- If ***Y*** rises:
- I.e., an increase in ***Y*** causes an increase in money demand, other things equal.

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ACTIVE LEARNING 1

The determinants of money demand

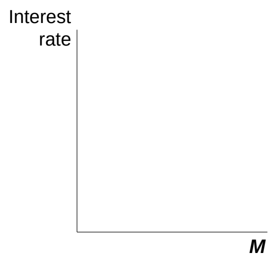
A. Suppose ***r*** rises, but ***Y*** and ***P*** are unchanged. What happens to money demand?

B. Suppose ***P*** rises, but ***Y*** and ***r*** are unchanged. What happens to money demand?

ACTIVE LEARNING 1

Answers

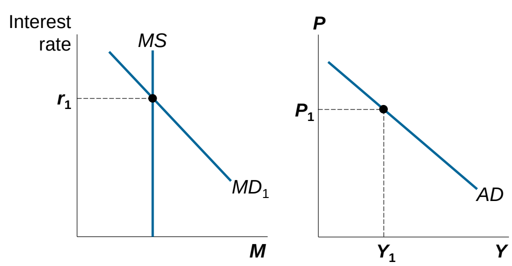
How *r* Is Determined



MS curve

MD curve

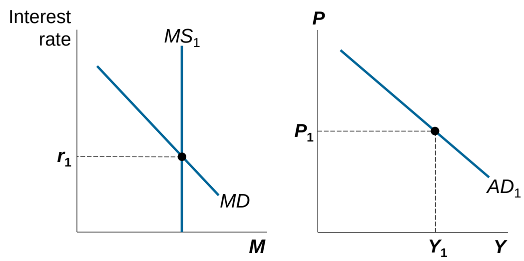
How the Interest-Rate Effect Works



Monetary Policy and Aggregate Demand

- To achieve macroeconomic goals, the Fed can use monetary policy to
- The Fed's policy instrument is
- The news often reports that the Fed targets the interest rate.
  - More precisely,
- To change the interest rate

The Effects of Reducing the Money Supply



ACTIVE LEARNING 2
Monetary policy

For each of the events below,

- determine the short-run effects on output
- determine how the Fed should adjust the money supply and interest rates to stabilize output

A. Congress tries to balance the budget by cutting govt spending.

B. A stock market boom increases household wealth.

C. War breaks out in the Middle East, causing oil prices to soar.

ACTIVE LEARNING 2
Answers

Liquidity traps

- Monetary policy stimulates aggregate demand by reducing the interest rate.
- **Liquidity trap**:
- In a liquidity trap,
- However, central bank can
- Also, central bank can

  The Fed pursued this option in 2008–2009.

Fiscal Policy and Aggregate Demand

- **Fiscal policy**:
- **Expansionary** fiscal policy
- **Contractionary** fiscal policy
- Fiscal policy has two effects on *AD*...

1. The Multiplier Effect

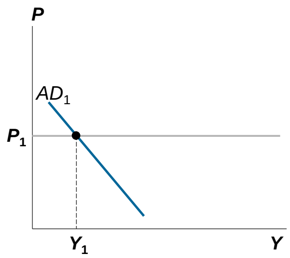
- If the govt buys $20b of planes from Boeing, Boeing's revenue increases by $20b.
- This is distributed to Boeing's workers (as wages) and owners (as profits or stock dividends).
- These people are also consumers and

Multiplier effect:

1. The Multiplier Effect

A $20b increase in ***G*** initially shifts *AD* to the right by $20b.

The increase in ***Y*** causes



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Marginal Propensity to Consume

- How big is the multiplier effect? It depends on
- **Marginal propensity to consume (MPC)**:

E.g., if *MPC* = 0.8 and income rises $100, ***C*** rises ____________.

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A Formula for the Multiplier

Notation: ΔG is the change in ***G***, ΔY and ΔC are the ultimate changes in ***Y*** and ***C***

$Y = C + I + G + NX$ identity

I and ***NX*** do not change

because $\Delta C = MPC\ \Delta Y$

solved for ΔY

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A Formula for the Multiplier

The size of the multiplier depends on *MPC*.

E.g., if *MPC* = 0.5 multiplier =
if *MPC* = 0.75 multiplier =
if *MPC* = 0.9 multiplier =

A bigger *MPC* means

$$\Delta Y = \boxed{\frac{1}{1 - MPC}} \Delta G$$

The multiplier

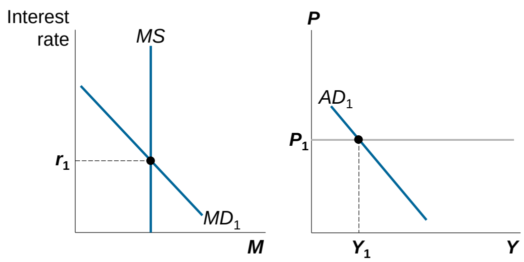
Other Applications of the Multiplier Effect

- The multiplier effect:
  Each $1 increase in ***G*** can generate more than a $1 increase in agg demand.
- Also true for the other components of GDP.
  Example:

2. The Crowding-Out Effect

- Fiscal policy has another effect on *AD*
- A fiscal expansion raises ***r***,
- So, the size of the *AD* shift may be ___________ than the initial fiscal expansion.
- This is called the **crowding-out effect**.

How the Crowding-Out Effect Works



Changes in Taxes

- A tax cut increases households' take-home pay.
- Households
- The size of the shift is affected by the multiplier and crowding-out effects.
- Another factor: whether households perceive the tax cut to be

ACTIVE LEARNING 3

Fiscal policy effects

The economy is in recession.
Shifting the *AD* curve rightward by $200b would end the recession.

A. If *MPC* = .8 and there is no crowding out, how much should Congress increase ***G*** to end the recession?

B. If there <u>is</u> crowding out, will Congress need to increase ***G*** more or less than this amount?

ACTIVE LEARNING **3**

Answers

Fiscal Policy and Aggregate Supply

- Most economists believe the short-run effects of fiscal policy mainly work through agg demand.
- But
- Recall one of the Ten Principles from Chapter 1: ***People respond to incentives*.**
-
- People who believe this effect is large are called

Fiscal Policy and Aggregate Supply

- Govt purchases might affect agg supply. Example:
- This effect is probably more relevant in the long run: it takes time to build the new roads and put them into use.

Using Policy to Stabilize the Economy

- Since the Employment Act of 1946, economic stabilization has been a goal of U.S. policy.
- Economists debate how active a role the govt should take to stabilize the economy.

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The Case for Active Stabilization Policy

- Keynes:

  among households and firms, leading to shifts in aggregate demand and fluctuations in output and employment.
- Also, other factors cause fluctuations, e.g.,
- If policymakers do nothing, these fluctuations are destabilizing to businesses, workers, consumers.

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The Case for Active Stabilization Policy

- Proponents of active stabilization policy believe the govt should use policy to reduce these fluctuations:
  - When GDP falls below its natural rate,
  - When GDP rises above its natural rate,

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Keynesians in the White House

1961:
John F Kennedy pushed for a tax cut to stimulate agg demand. Several of his economic advisors were followers of Keynes.

2009:
Barack Obama pushed for spending increases and tax cuts to increase agg demand in the face of a deep recession.

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The Case Against Active Stabilization Policy

- Monetary policy affects economy with a long lag:
  - Firms make investment plans in advance, so
  - Most economists believe it takes at least ______________ for mon policy to affect output and employment.
- Fiscal policy
  - Changes in ***G*** and ***T*** require acts of Congress.
  - The legislative process can take months or years.

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The Case Against Active Stabilization Policy

- Due to these long lags, critics of active policy argue that
- These critics contend that policymakers should focus on long-run goals like economic growth and low inflation.

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Automatic Stabilizers

- **Automatic stabilizers**:

Automatic Stabilizers: Examples

- The tax system
- Govt spending
  -
  - Govt spending on these programs automatically rises, which stimulates agg demand.

CONCLUSION

- Policymakers need to consider all the effects of their actions. For example,
  - When Congress cuts taxes, it should consider
  - When the Fed reduces the rate of money growth, it must take into account not only