



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

- What are economic fluctuations? What are their characteristics?
- How does the model of aggregate demand and aggregate supply explain economic fluctuations?
- Why does the Aggregate-Demand curve slope downward? What shifts the *AD* curve?
- What is the slope of the Aggregate-Supply curve in the short run? In the long run? What shifts the *AS* curve(s)?

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Introduction

- Over the long run, real GDP grows about 5% per year on average.
- In the short run, GDP fluctuates around its trend.
 - **Recessions**: periods of falling real incomes and rising unemployment
 - **Depressions**: severe recessions (very rare)
- Short-run economic fluctuations are often called **business cycles**.

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Three Facts About Economic Fluctuations

FACT 1: Economic fluctuations are irregular and unpredictable.

FACT 2: Most macroeconomic quantities fluctuate together.

FACT 3: As output falls, unemployment rises.

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Introduction, *continued*

- Explaining these fluctuations is difficult, and the theory of economic fluctuations is controversial.
- Most economists use the **model of aggregate demand and aggregate supply** to study fluctuations.
- This model differs from the classical economic theories economists use to explain the long run.

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Classical Economics – A Recap

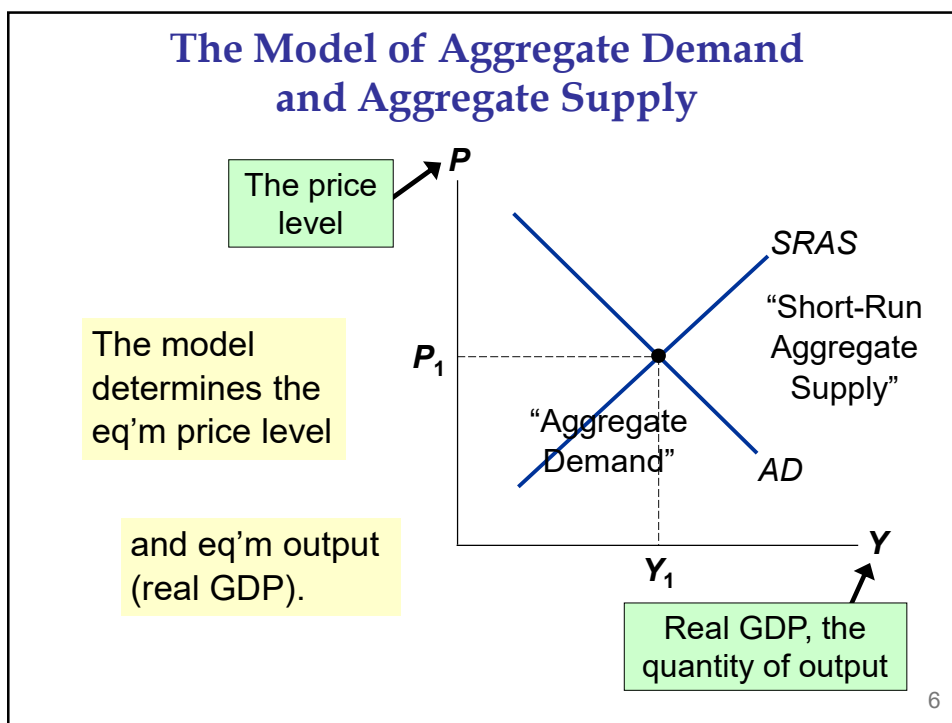
- The previous chapters are based on the ideas of classical economics, especially:
- The **Classical Dichotomy**, the separation of variables into two groups:
 - Real – quantities, relative prices
 - Nominal – measured in terms of money
- The **neutrality of money**:
Changes in the money supply affect nominal but not real variables.

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Classical Economics – A Recap

- Most economists believe classical theory describes the world in the long run, but not the short run.
- In the short run, changes in nominal variables (like the money supply or ***P***) can affect real variables (like ***Y*** or the u-rate).
- To study the short run, we use a new model.

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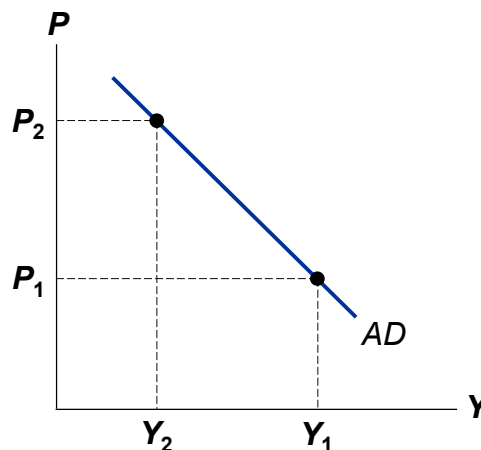


Post Keynesian theory

- The Great Depression caused a rethinking of the Classical Theory of the macroeconomy. It could not explain:
 - Drop in output by 30% from 1929 to 1933
 - Rise in unemployment to 25%
- In 1936, J.M. Keynes developed a theory to explain this phenomenon.

The Aggregate-Demand (AD) Curve

The **AD curve** shows the quantity of all g&s demanded in the economy at any given price level.



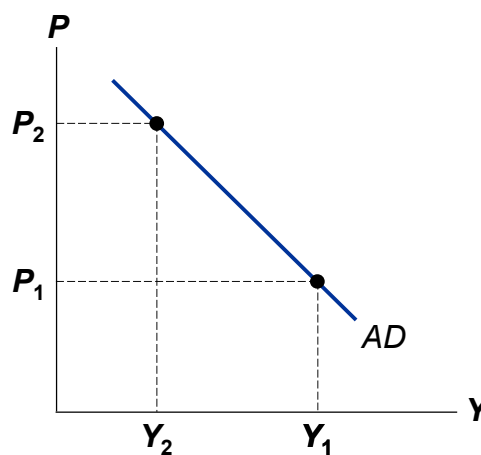
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Why the AD Curve Slopes Downward

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

Assume G fixed by govt policy.

To understand the slope of AD , must determine how a change in P affects C , I , and NX .



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The Wealth Effect (P and C)

Suppose P rises.

- With the money they hold people hold buy fewer g&s, so real wealth is lower.
- People feel poorer.

Result: C falls.

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The Interest-Rate Effect (P and I)

Suppose P rises.

- Buying g&s requires more money.
- To get the money, people sell bonds or other assets.
- This drives up interest rates.

Result: I falls.

(Recall, I depends negatively on interest rates.)

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Building the LM Curve: The Theory of Liquidity Preference

- due to John Maynard Keynes.
- A simple theory in which the interest rate is determined by money supply and money demand.

Money Supply

The supply of
real money
balances
is fixed:

$$(M/P)^s = \bar{M}/\bar{P}$$

r
interest
rate

$$(M/P)^s$$

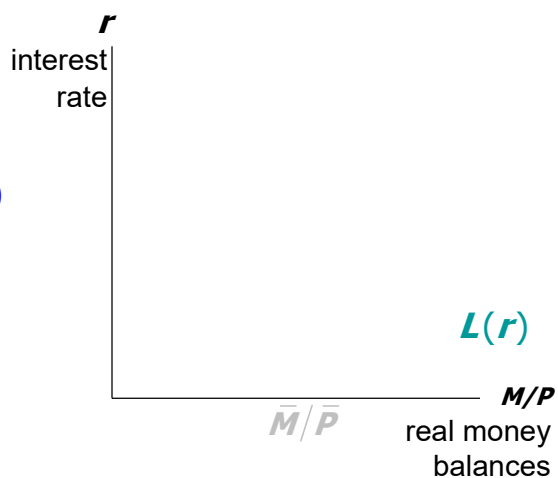
$$\bar{M}/\bar{P}$$

M/P
real money
balances

Money Demand

Demand for
real money
balances:

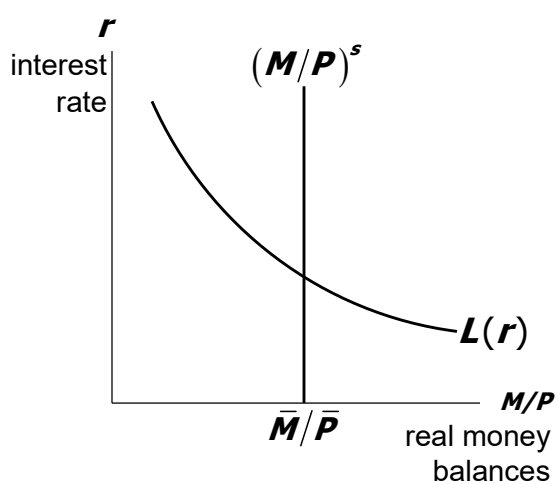
$$(M/P)^d = L(r)$$



Equilibrium

The interest
rate adjusts
to equate the
supply and
demand for
money:

$$\bar{M}/\bar{P} = L(r)$$



The Exchange-Rate Effect (P and NX)

Suppose P rises.

- interest rates rise (the interest-rate effect).

Foreign investors desire more Indian bonds.

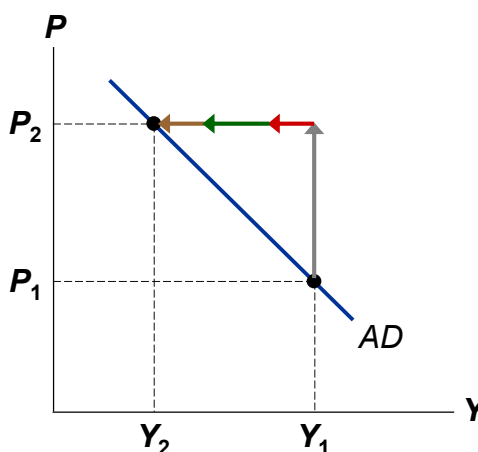
- Higher demand for rupees in foreign exchange market.
- Indian exchange rate appreciates.
- Indian exports more expensive to people abroad, imports cheaper to Indian residents.

Result: NX falls.

The Slope of the AD Curve: Summary

An increase in P reduces the quantity of g&s demanded because:

- the wealth effect (C falls)
- the interest-rate effect (I falls)
- the exchange-rate effect (NX falls)

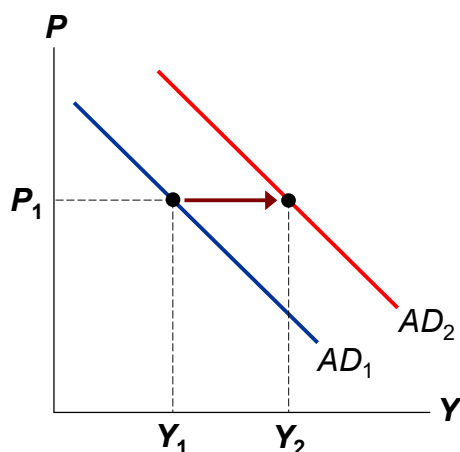


Why the AD Curve Might Shift

Any event that changes
 C , I , G , or NX
 – except a change in P –
 will shift the AD curve.

Example:

A stock market boom
 makes households feel
 wealthier, C rises,
 the AD curve shifts right.



Why the AD Curve Might Shift

- Changes in C
 - Stock market boom/crash
 - Preferences re: consumption/saving tradeoff
 - Tax hikes/cuts
- Changes in I
 - Firms buy new computers, equipment, factories
 - Expectations, optimism/pessimism
 - Interest rates, monetary policy
 - Investment Tax Credit or other tax incentives

Why the *AD* Curve Might Shift

- Changes in **G**
 - Government spending, *e.g.*, defense
 - State & local spending, *e.g.*, roads, schools
- Changes in ***NX***
 - Booms/recessions in countries that buy our exports.
 - Appreciation/depreciation resulting from international speculation in foreign exchange market

ACTIVE LEARNING 1

The Aggregate-Demand curve

What happens to the *AD* curve in each of the following scenarios?

- A.** A ten-year-old investment tax credit expires.
- B.** The India rupee depreciates
- C.** A fall in prices increases the real value of consumers' wealth.
- D.** State governments replace their sales taxes with new taxes on interest, dividends, and capital gains.

ACTIVE LEARNING 1

Answers

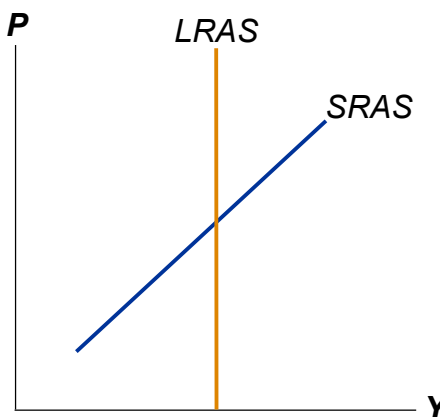
- A. A ten-year-old investment tax credit expires.
I falls, AD curve shifts left.
- B. The Indian rupee depreciates
NX rises, AD curve shifts right.
- C. A fall in prices increases the real value of consumers' wealth.
Move down along AD curve (wealth-effect).
- D. State governments replace sales taxes with new taxes on interest, dividends, and capital gains.
C rises, AD shifts right.

The Aggregate-Supply (AS) Curves

The **AS curve** shows the total quantity of g&s firms produce and sell at any given price level.

AS is:

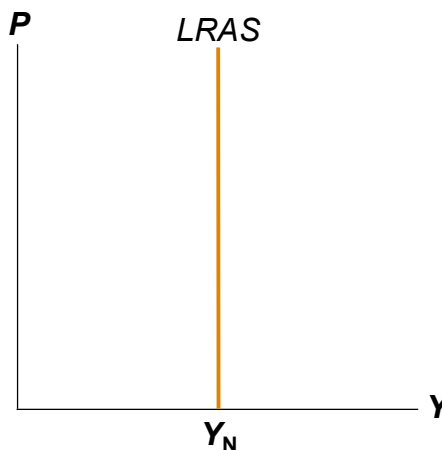
- upward-sloping in short run
- vertical in long run



The Long-Run Aggregate-Supply Curve (LRAS)

The **natural rate of output** (Y_N) is the amount of output the economy produces when unemployment is at its natural rate.

Y_N is also called **potential output** or **full-employment output**.

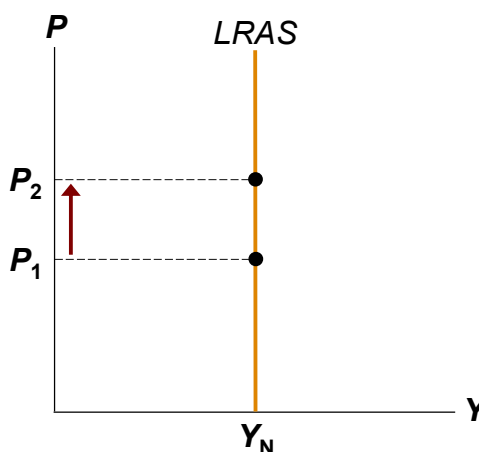


Why LRAS Is Vertical

Y_N determined by the economy's stocks of labor, capital, and natural resources, and on the level of technology.

An increase in P does not affect any of these, so it does not affect Y_N .

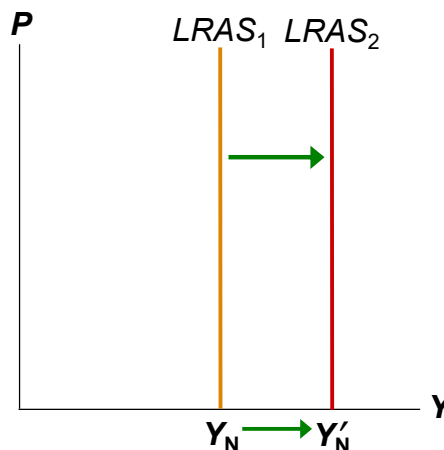
(Classical dichotomy)



Why the *LRAS* Curve Might Shift

Any event that changes any of the determinants of Y_N will shift *LRAS*.

Example:
Immigration increases L , causing Y_N to rise.



Why the *LRAS* Curve Might Shift

- Changes in L or natural rate of unemployment
 - Immigration
 - Baby-boomers retire
 - Govt policies reduce natural u-rate
- Changes in K or H
 - Investment in factories, equipment
 - More people get college degrees
 - Factories destroyed by a hurricane

Why the *LRAS* Curve Might Shift

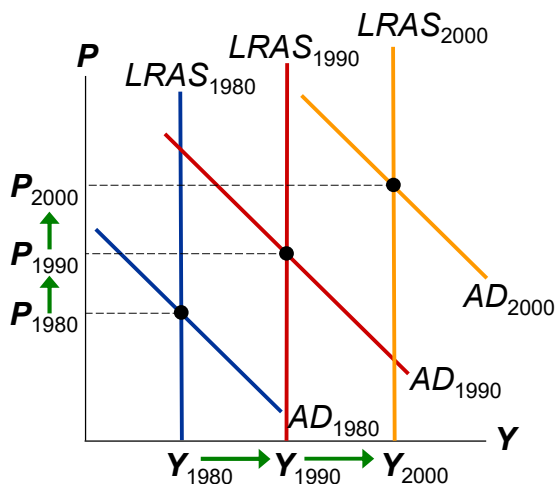
- Changes in natural resources
 - Discovery of new mineral deposits
 - Reduction in supply of imported oil
 - Changing weather patterns that affect agricultural production
- Changes in technology
 - Productivity improvements from technological progress

Using *AD* & *AS* to Depict *LR* Growth and Inflation

Over the long run, tech. progress shifts *LRAS* to the right

and growth in the money supply shifts *AD* to the right.

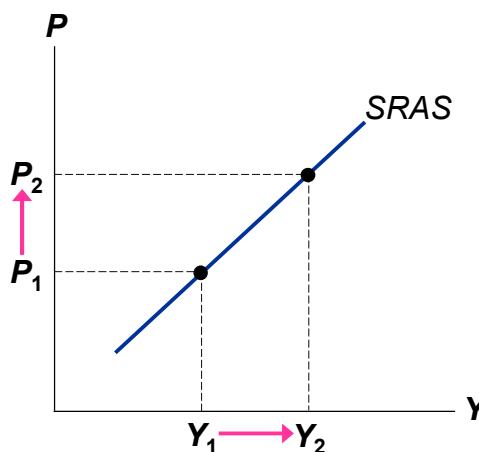
Result:
ongoing inflation
and growth in
output.



Short Run Aggregate Supply (SRAS)

The SRAS curve is upward sloping:

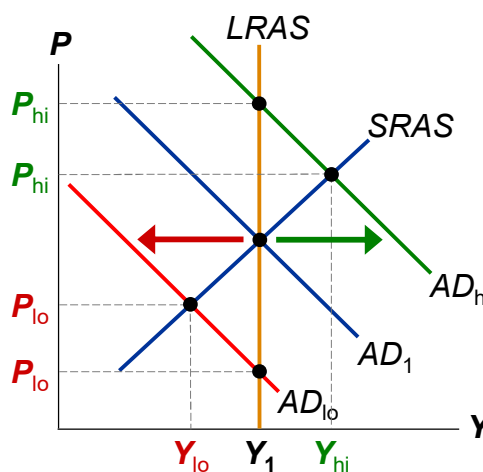
Over the period of 1-2 years, an increase in P causes an increase in the quantity of g & s supplied.



Why the Slope of SRAS Matters

If AS is vertical, fluctuations in AD do not cause fluctuations in output or employment.

If AS slopes up, then shifts in AD do affect output and employment.



Three Theories of SRAS

In each,

- some type of market imperfection
- result:
*Output deviates from its natural rate
when the actual price level deviates
from the price level people expected.*

1. The Sticky-Wage Theory

- Imperfection:
Nominal wages are **sticky** in the short run,
they adjust sluggishly.
 - Due to labor contracts, social norms
- Firms and workers set the nominal wage in advance based on P_E , the price level they expect to prevail.

1. The Sticky-Wage Theory

- If $P > P_E$,
revenue is higher, but labor cost is not.
Production is more profitable,
so firms increase output and employment.
- Hence, higher P causes higher Y ,
so the **SRAS curve slopes upward**.

2. The Sticky-Price Theory

- Imperfection:
Many prices are sticky in the short run.
 - Due to **menu costs**, the costs of adjusting prices.
 - Examples: cost of printing new menus,
the time required to change price tags
- Firms set sticky prices in advance based on P_E .

2. The Sticky-Price Theory

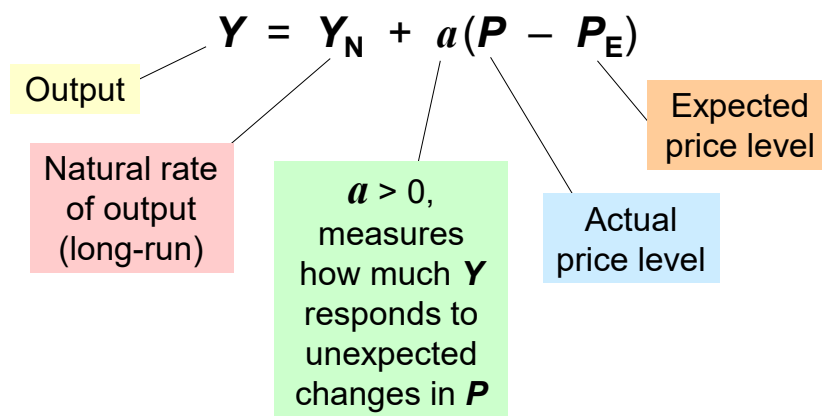
- Suppose RBI increases the money supply unexpectedly. In the long run, P will rise.
- In the short run, firms without menu costs can raise their prices immediately.
- Firms with menu costs wait to raise prices. Meantime, their prices are relatively low, which increases demand for their products, so they increase output and employment.
- Hence, higher P is associated with higher Y , so the **SRAS curve slopes upward**.

3. The Misperceptions Theory

- Imperfection:
Firms may confuse changes in P with changes in the relative price of the products they sell.
- If P rises above P_E , a firm sees its price rise before realizing all prices are rising.
The firm may believe its *relative* price is rising, and may increase output and employment.
- So, an increase in P can cause an increase in Y , making the **SRAS curve upward-sloping**.

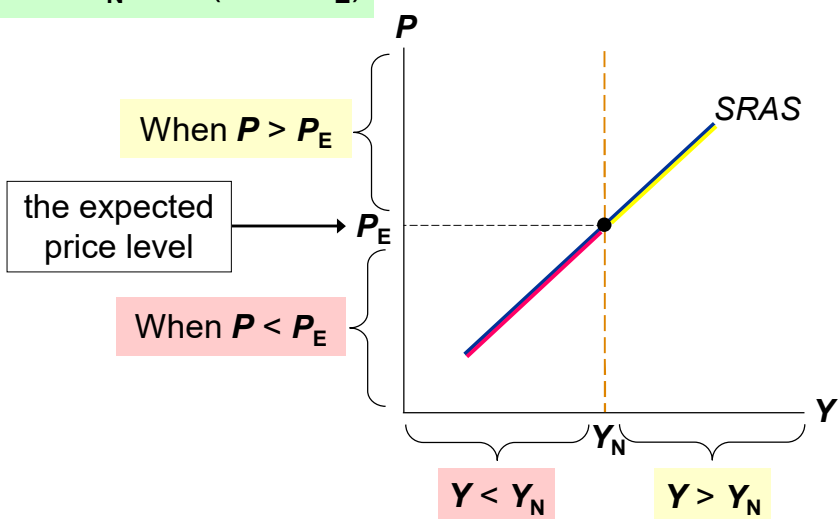
What the 3 Theories Have in Common:

In all 3 theories, Y deviates from Y_N when P deviates from P_E .



What the 3 Theories Have in Common:

$$Y = Y_N + a(P - P_E)$$



SRAS and LRAS

- The imperfections in these theories are temporary. Over time,
 - sticky wages and prices become flexible
 - misperceptions are corrected
- In the LR,
 - $P_E = P$
 - AS curve is vertical

SRAS and LRAS

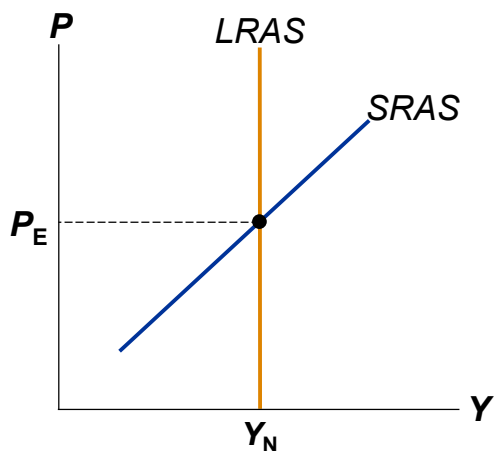
$$Y = Y_N + a(P - P_E)$$

In the long run,

$$P_E = P$$

and

$$Y = Y_N.$$



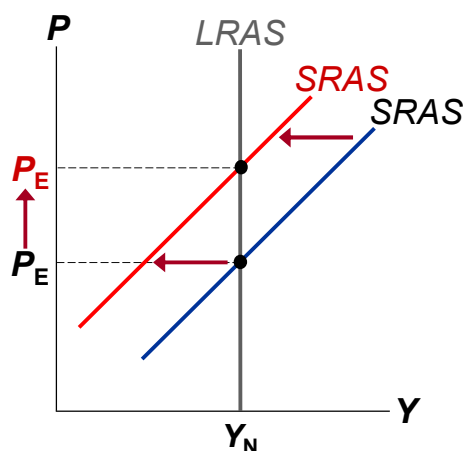
Why the SRAS Curve Might Shift

Everything that shifts $LRAS$ shifts $SRAS$, too.

Also, P_E shifts $SRAS$:

If P_E rises,
workers & firms set
higher wages.

At each P ,
production is less
profitable, Y falls,
 $SRAS$ shifts left.



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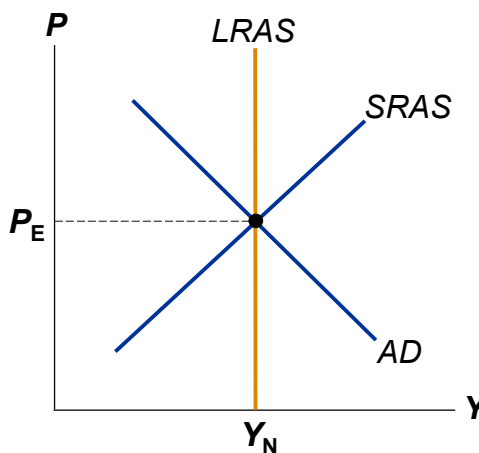
The Long-Run Equilibrium

In the long-run
equilibrium,

$$P_E = P,$$

$$Y = Y_N,$$

and unemployment
is at its natural rate.



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Economic Fluctuations

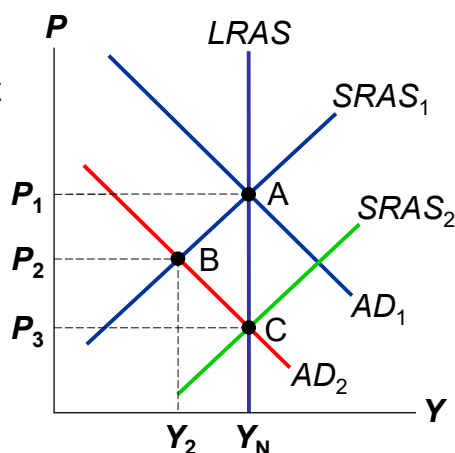
- Caused by events that shift the *AD* and/or *AS* curves.
- Four steps to analyzing economic fluctuations:
 1. Determine whether the event shifts *AD* or *AS*.
 2. Determine whether curve shifts left or right.
 3. Use *AD-AS* diagram to see how the shift changes *Y* and *P* in the short run.
 4. Use *AD-AS* diagram to see how economy moves from new SR eq'm to new LR eq'm.

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The Effects of a Shift in *AD*

Event: Stock market crash

1. Affects *C*, *AD* curve
2. *C* falls, so *AD* shifts left
3. SR eq'm at B.
P and *Y* lower,
unemp higher
4. Over time, *P_E* falls,
SRAS shifts right,
until LR eq'm at C.
Y and unemp back
at initial levels.



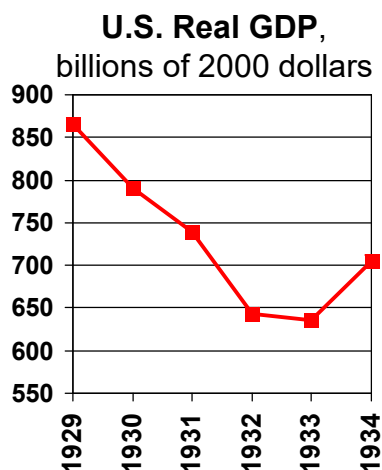
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Two Big AD Shifts:

1. The Great Depression

From 1929-1933,

- money supply fell 28% due to problems in banking system
- stock prices fell 90%, reducing C and I
- Y fell 27%
- P fell 22%
- u-rate rose from 3% to 25%



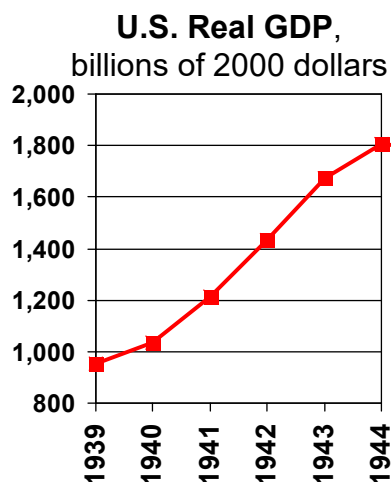
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Two Big AD Shifts:

2. The World War II Boom

From 1939-1944,

- govt outlays rose from \$9.1 billion to \$91.3 billion
- Y rose 90%
- P rose 20%
- unemp fell from 17% to 1%

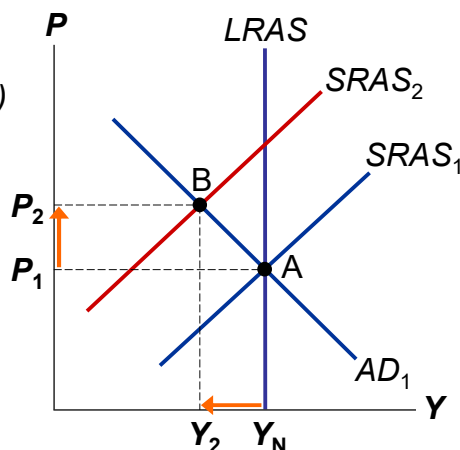


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The Effects of a Shift in *SRAS*

Event: Oil prices rise

1. Increases costs, shifts *SRAS* (assume *LRAS* constant)
2. *SRAS* shifts left
3. SR eq'm at point B. *P* higher, *Y* lower, unemp higher
From A to B, **stagflation**, a period of falling output and rising prices.



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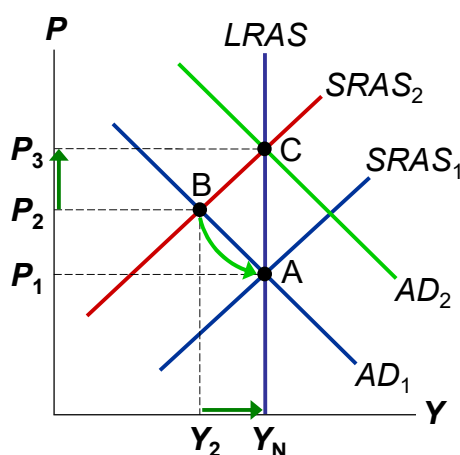
Accommodating an Adverse Shift in *SRAS*

If policymakers do nothing,

4. Low employment causes wages to fall, *SRAS* shifts right, until LR eq'm at A.

Or, policymakers could use fiscal or monetary policy to increase *AD* and accommodate the *AS* shift:

Y back to *Y_N*, but *P* permanently higher.



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The 1970s Oil Shocks and Their Effects

	1973-75	1978-80
Real oil prices	+ 138%	+ 99%
CPI	+ 21%	+ 26%
Real GDP	− 0.7%	+ 2.9%
# of unemployed persons	+ 3.5 million	+ 1.4 million

CONCLUSION

- This chapter has introduced the model of aggregate demand and aggregate supply, which helps explain economic fluctuations.
- Keep in mind: these fluctuations are deviations from the long-run trends explained by the models we learned in previous chapters.
- In the next chapter, we will learn how policymakers can affect aggregate demand with fiscal and monetary policy.



CHAPTER SUMMARY

- Short-run fluctuations in GDP and other macroeconomic quantities are irregular and unpredictable. Recessions are periods of falling real GDP and rising unemployment.
- Economists analyze fluctuations using the model of aggregate demand and aggregate supply.
- The aggregate demand curve slopes downward because a change in the price level has a wealth effect on consumption, an interest-rate effect on investment, and an exchange-rate effect on net exports.

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CHAPTER SUMMARY

- Anything that changes **C**, **I**, **G**, or **NX** – except a change in the price level – will shift the aggregate demand curve.
- The long-run aggregate supply curve is vertical because changes in the price level do not affect output in the long run.
- In the long run, output is determined by labor, capital, natural resources, and technology; changes in any of these will shift the long-run aggregate supply curve.

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CHAPTER SUMMARY

- In the short run, output deviates from its natural rate when the price level is different than expected, leading to an upward-sloping short-run aggregate supply curve. The three theories proposed to explain this upward slope are the sticky wage theory, the sticky price theory, and the misperceptions theory.
- The short-run aggregate-supply curve shifts in response to changes in the expected price level and to anything that shifts the long-run aggregate supply curve.

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CHAPTER SUMMARY

- Economic fluctuations are caused by shifts in aggregate demand and aggregate supply.
- When aggregate demand falls, output and the price level fall in the short run. Over time, a change in expectations causes wages, prices, and perceptions to adjust, and the short-run aggregate supply curve shifts rightward. In the long run, the economy returns to the natural rates of output and unemployment, but with a lower price level.

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CHAPTER SUMMARY

- A fall in aggregate supply results in stagflation – falling output and rising prices. Wages, prices, and perceptions adjust over time, and the economy recovers.

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Chapter 34

Influence of Monetary and Fiscal policy on aggregate demand



**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?

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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 the short-run effects of fiscal and monetary policy, which work through aggregate demand.

Aggregate Demand

- Recall, the *AD* curve slopes downward for three reasons:
 - The wealth effect
 - The interest-rate effect ← the most important of these effects for the economy
 - 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 supply and demand for money
- Money supply: assume fixed by central bank, does not depend on interest rate

The Theory of Liquidity Preference

- Money demand reflects how much wealth people want to hold in liquid form.
- 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: Y , r , and P .

Money Demand

- Suppose real income (Y) rises. Other things equal, what happens to money demand?
- If Y rises:
 - Households want to buy more g&s, so they need more money.
 - To get this money, they attempt to sell some of their bonds.
- *I.e., an increase in Y causes an increase in money demand, other things equal.*

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?

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ACTIVE LEARNING 1

Answers

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

r is the opportunity cost of holding money.

An increase in r reduces money demand:
households attempt to buy bonds to take
advantage of the higher interest rate.

Hence, **an increase in r causes a decrease in
money demand, other things equal.**

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ACTIVE LEARNING 1

Answers

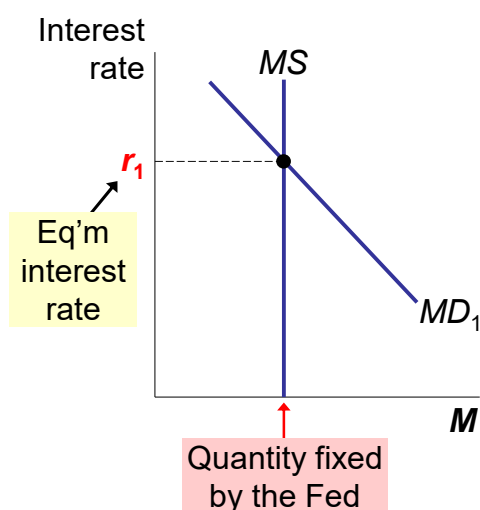
B. Suppose P rises, but Y and r are unchanged. What happens to money demand?

If Y is unchanged, people will want to buy the same amount of g&s.

Since P is higher, they will need more money to do so.

Hence, an increase in P causes an increase in money demand, other things equal.

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How r Is Determined

MS curve is vertical:
Changes in r do not affect MS , which is fixed by the RBI.

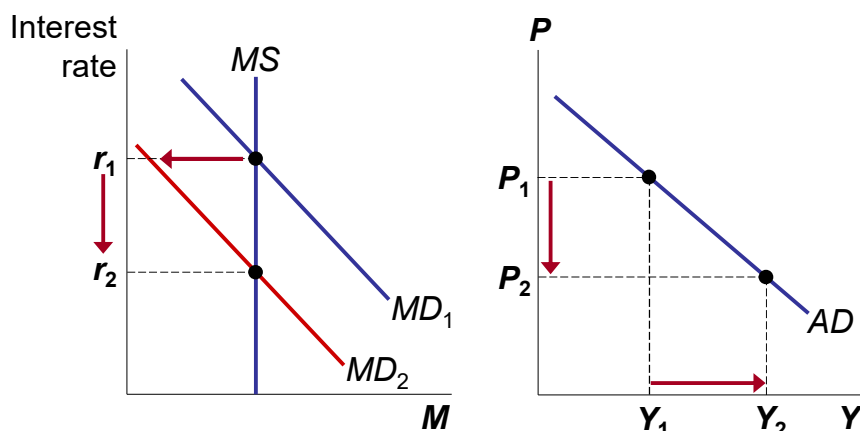
MD curve is downward sloping:
A fall in r increases money demand.

THE INFLUENCE OF MONETARY AND FISCAL POLICY

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How the Interest-Rate Effect Works

A fall in P reduces money demand, which lowers r .



A fall in r increases I and the quantity of g&s demanded.

THE INFLUENCE OF MONETARY AND FISCAL POLICY

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Monetary Policy and Aggregate Demand

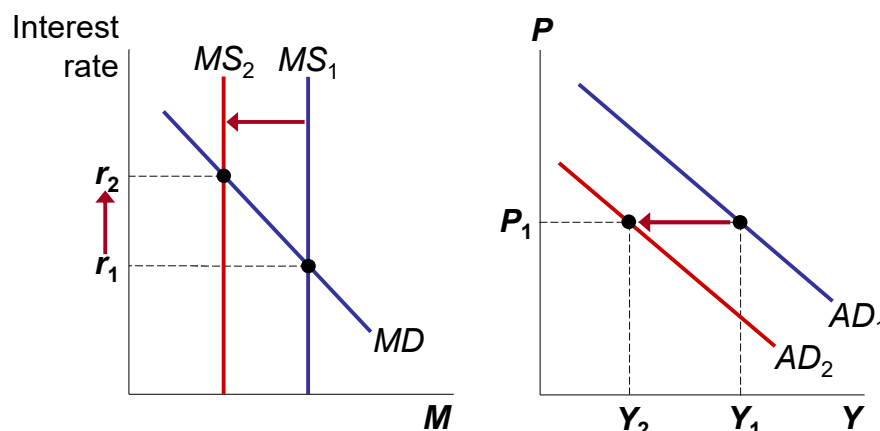
- To achieve macroeconomic goals, the RBI can use monetary policy to shift the AD curve.
- The RBI's policy instrument is MS .
- The news often reports that the RBI targets the interest rate.
 - More precisely, the bank rate – which banks charge each other on short-term loans
- To change the interest rate and shift the AD curve, the RBI conducts open market operations to change MS .

THE INFLUENCE OF MONETARY AND FISCAL POLICY

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The Effects of Reducing the Money Supply

The RBI can raise r by reducing the money supply.



An increase in r reduces the quantity of g&s demanded.

THE INFLUENCE OF MONETARY AND FISCAL POLICY

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ACTIVE LEARNING 2

Monetary policy

For each of the events below,

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

- A. Government 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.

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ACTIVE LEARNING 2

Answers

- A.** Government tries to balance the budget by cutting govt spending.

This event would reduce agg demand and output.

To offset this event, the RBI should increase MS and reduce r to increase agg demand.

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ACTIVE LEARNING 2

Answers

- B.** A stock market boom increases household wealth.

This event would increase agg demand, raising output above its natural rate.

To offset this event, the RBI should reduce MS and increase r to reduce agg demand.

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ACTIVE LEARNING 2

Answers

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

This event would reduce agg supply, causing output to fall.

To offset this event, the RBI should increase MS and reduce r to increase agg demand.

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Fiscal Policy and Aggregate Demand

- **Fiscal policy:** the setting of the level of govt spending and taxation by govt policymakers
- **Expansionary** fiscal policy
 - an increase in G and/or decrease in T
 - shifts AD right
- **Contractionary** fiscal policy
 - a decrease in G and/or increase in T
 - shifts AD left
- 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 will spend a portion of the extra income.
- This extra consumption causes further increases in aggregate demand.

Multiplier effect: the additional shifts in AD that result when fiscal policy increases income and thereby increases consumer spending

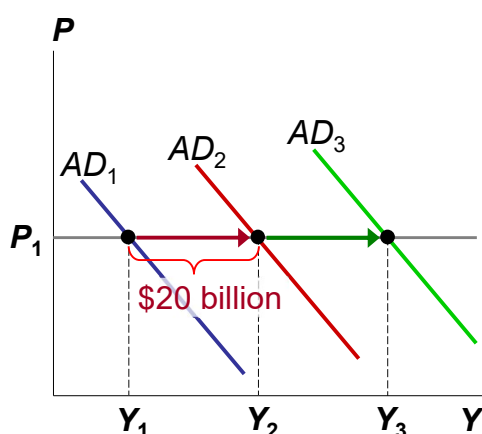
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1. The Multiplier Effect

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

The increase in Y causes C to rise, which shifts AD further to the right.



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Marginal Propensity to Consume

- How big is the multiplier effect?
It depends on how much consumers respond to increases in income.
- Marginal propensity to consume (MPC):**
the fraction of extra income that households consume rather than save
E.g., if $MPC = 0.8$ and income rises \$100, C rises \$80.

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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

$$Y = C + I + G + NX \quad \text{identity}$$

$$\Delta Y = \Delta C + \Delta G \quad I \text{ and } NX \text{ do not change}$$

$$\Delta Y = MPC \Delta Y + \Delta G \quad \text{because } \Delta C = MPC \Delta Y$$

$$\Delta Y = \frac{1}{1 - MPC} \Delta G \quad \text{solved for } \Delta Y$$

The multiplier

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A Formula for the Multiplier

The size of the multiplier depends on *MPC*.

E.g., if *MPC* = 0.5 multiplier = 2
 if *MPC* = 0.75 multiplier = 4
 if *MPC* = 0.9 multiplier = 10

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

The multiplier

A bigger *MPC* means changes in *Y* cause bigger changes in *C*, which in turn cause more changes in *Y*.

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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: Suppose a recession overseas reduces demand for U.S. net exports by \$10b.
 Initially, agg demand falls by \$10b.
 The fall in *Y* causes *C* to fall, which further reduces agg demand and income.

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2. The Crowding-Out Effect

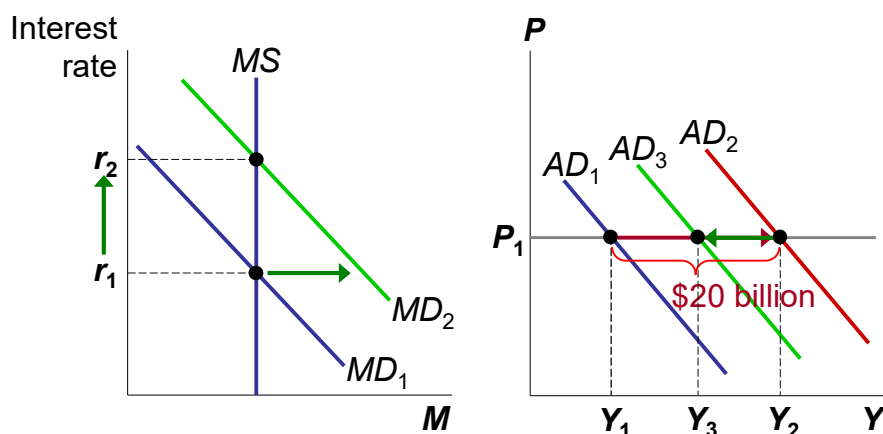
- Fiscal policy has another effect on AD that works in the opposite direction.
- A fiscal expansion raises r , which reduces investment, which reduces the net increase in agg demand.
- So, the size of the AD shift may be smaller than the initial fiscal expansion.
- This is called the **crowding-out effect**.

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How the Crowding-Out Effect Works

A \$20b increase in G initially shifts AD right by \$20b



But higher Y increases MD and r , which reduces AD .

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Changes in Taxes

- A tax cut increases households' take-home pay.
- Households respond by spending a portion of this extra income, shifting *AD* to the right.
- The size of the shift is affected by the multiplier and crowding-out effects.
- Another factor: whether households perceive the tax cut to be temporary or permanent.
 - A permanent tax cut causes a bigger increase in **C** – and a bigger shift in the *AD* curve – than a temporary tax cut.

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ACTIVE LEARNING 3

Exercise

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 Government increase **G** to end the recession?
- B. If there is crowding out, will Government need to increase **G** more or less than this amount?

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ACTIVE LEARNING 3

Answers

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 Govt increase **G** to end the recession?

$$\text{Multiplier} = 1/(1 - .8) = 5$$

Increase **G** by \$40b
to shift agg demand by $5 \times \$40b = \$200b$.

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ACTIVE LEARNING 3

Answers

The economy is in recession.

Shifting the *AD* curve rightward by \$200b would end the recession.

- B.** If there is crowding out, will Govt need to increase **G** more or less than this amount?

Crowding out reduces the impact of **G** on *AD*.

To offset this, Govt should increase **G** by a larger amount.

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Fiscal Policy and Aggregate Supply

- Most economists believe the short-run effects of fiscal policy mainly work through agg demand.
- But fiscal policy might also affect agg supply.
- Recall one of the Ten Principles from Chap 1:
People respond to incentives.
- A cut in the tax rate gives workers incentive to work more, so it might increase the quantity of g&s supplied and shift AS to the right.
- People who believe this effect is large are called “Supply-siders.”

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Fiscal Policy and Aggregate Supply

- Govt purchases might affect agg supply.
Example:
 - Govt increases spending on roads.
 - Better roads may increase business productivity, which increases the quantity of g&s supplied, shifts AS to the right.
- This effect is probably more relevant in the long run: it takes time to build the new roads and put them into use.

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The Case for Active Stabilization Policy

- Keynes: “Animal spirits” cause waves of pessimism and optimism among households and firms, leading to shifts in aggregate demand and fluctuations in output and employment.
- Also, other factors cause fluctuations, e.g.,
 - booms and recessions abroad
 - stock market booms and crashes
- 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, use expansionary monetary or fiscal policy to prevent or reduce a recession.
 - When GDP rises above its natural rate, use contractionary policy to prevent or reduce an inflationary boom.

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Automatic Stabilizers

- **Automatic stabilizers:**
changes in fiscal policy that stimulate
agg demand when economy goes into recession,
without policymakers having to take any
deliberate action

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Automatic Stabilizers: Examples

- The tax system
 - In recession, taxes fall automatically,
which stimulates agg demand.
- Govt spending
 - In recession, more people apply for public
assistance (welfare, unemployment insurance).
 - Govt spending on these programs automatically
rises, which stimulates agg demand.

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