

Unit 3: Aggregate Supply and Aggregate Demand

(National Income and Price Determination)

Exam Dates

Multiple Choice:

Graphing:

Advanced Placement Macroeconomics Unit3 - Overview - Aggregate Supply and Demand**(NOT TO BE OUTLINED) Total Textbook Pages covered**

1. Chapter 8 - page 147, the beginning of the chapter to page 153 up to but not including "The Interest-Rate-Investment Relationship"
2. Chapter 8 - page 158, "The Multiplier Effect" to the end of the chapter on page 162.
3. Chapter 10 - all

Graphs

Key Graphs 1 - 20

Key Concepts

Aggregate supply, aggregate demand, aggregate supply model, aggregate demand model, equilibrium national output, general price level, determinants of aggregate demand, components of aggregate demand: consumption, investment, government spending, net exports; spending multiplier, determinants of aggregate supply, shortrun aggregate supply curve, longrun aggregate supply curve, sticky price model, sticky wage model, equilibrium income, equilibrium price level, real output, real price level, actual employment, full employment, economic fluctuations.

Crucial Activities - Resources

1. Notes - Chapter 10 - Aggregate Demand and Aggregate Supply - Part 1: Aggregate Demand (pg 188 - 191)
2. Problems in Aggregate Demand
3. Notes - Consumption, Saving, and the Multiplier Effect
4. Macroeconomics Lesson 1 Activity 20 Practice with APC, APS, MPC and MPS
5. The Multiplier Effect (Key Question #9 - Chapter 8)
6. Notes – chapter 10 – Aggregate Demand and Aggregate Supply – Part 2: Aggregate Supply (Pg 192-196)
7. Problems in Aggregate Supply
7. Notes – Aggregate Equilibrium
8. Macroeconomics Lesson 5 Activity 25 Short-Run Equilibrium Price Level and Output
9. Unit 3 Practice test

Name _____ Hour _____

Notes - Chapter 10 - Aggregate Demand and Aggregate Supply - Part 1: Aggregate Demand (pg 188 - 191)**I. Aggregate Demand (AD)****A. Aggregate Demand (Define it):**

1. Draw and fully label the Aggregate Demand Curve (Figure 10.1)

2. Price level and the amount of real GDP demanded are (Circle the correct word and cross out the incorrect) POSITIVELY / NEGATIVELY related.

a. When the price level rises (inflation), the quantity of real GDP demanded

b. When the price level falls (deflation), ...

B. Aggregate Demand Curve

1. Why the downward slope of the demand curve? (The answer is a to c below, so take notes on each)

a. The Real-Balances Effect (explain it):

b. The Interest-Rate Effect (explain it):

c. The Foreign Purchases Effect (explain it):

II. Changes in Aggregate Demand

<p>A. Changes in price level (inflation or deflation) cause movement along the existing AD curve.</p> <p>B. 1. Factors that cause the entire AD curve to shift are called _____</p> <p>_____</p> <p>or, less formally, _____</p> <p>_____</p> <p>2. NOTE: Increases and decreases in AD are also called positive and negative 'Demand Shocks.'</p>	<p>C. Draw and fully label an increase or decrease in AD (Figure 102)</p>
---	---

B. Determinants of Aggregate Demand

1. Consumer Spending (C - Consumption)

a. An increase in consumer spending / consumption will shift the AD curve to the (circle the correct word & cross out the incorrect word) LEFT / RIGHT.

b. A decrease in consumer spending / consumption will...

c. Factors that influence consumer spending / consumption

1.) Consumer Wealth (Explain what it is):

a.) An increase in consumer wealth will (circle the correct. Cross out the incorrect) INCREASE / DECREASE consumer spending / consumption

b.) A decrease in consumer wealth will...

c. This is called the _____ effect

2.) Consumer Expectations

a.) Expectations of higher future income or higher future prices will INCREASE / DECREASE consumer spending / consumption now.

b.) Expectations of lower future income or lower future prices will...

3.) Household Debt

a.) An increase in household debt will INCREASE / DECREASE Consumer spending / consumption

b.)

4. Personal taxes

a.)

b.)

2. Investment spending - (Ig) (explain it. Look back to page 108 - 109 if you have to):

a. An increase in investment spending will shift the AD curve to the LEFT / RIGHT

b.

c. Factors that influence Investment Spending

1.) Real Interest Rates (Note: Remember that businesses borrow money to buy capital. They then have to pay that money back with interest)

a.) An increase in real interest rates will INCREASE / DECREASE investment spending

b.)

2.) Expected Returns (This is the profit that businesses expect to make from investing in capital)

a. Higher expected returns will INCREASE / DECREASE investment spending

b.

c. Factors that influence the expected rate of return (**List the missing ones and explain each** as sufficiently as you need to in order to answer questions about them later)

i) Expectations about future business conditions

ii) Technology

iii)

iv)

3. Government Spending (G)

- a. An increase in government spending will shift the AD curve to the LEFT / RIGHT
- b.

4. Net Exports Spending (Xn)

- a. An increase in Net Export Spending will shift the AD curve to the LEFT / RIGHT
- b.

c. Factors that influence Net Export Spending

1.) National Income Abroad

- a.) Rising national income abroad INCREASES / DECREASES net export spending
- b.)

2.) Exchange Rates

- a.) Depreciation of the dollar INCREASES / DECREASES net export spending
- c.) Appreciation...

NOTE - We will spend much more time talking about international trade and exchange rates later in the course.

Name _____ Hour _____

Problems in Aggregate Demand

Directions: Read each scenario and fill in the information requested at the top of each column.

1. The Government greatly increases its purchases of nuclear submarines.

Factors that influence the Determinants of Aggregate Demand (Draw up or down arrows to indicate which factor is effected and how. If none of these factors in effected, draw an X over this table)				Determinants of Aggregate Demand (Draw up or down arrows to indicate which is effected and how. If none are affected, draw an X over this table)		Changes in Aggregate Demand (Draw the appropriate shift in AD. Include and label both axes, AD1 and AD2, and use an arrow to show movement. If AD does not move, draw AD1 only)	
National Income Abroad	Personal Taxes	Household Debt	Real Interest Rates	C – Consumption	Ig – Gross Investment		
Expected Rate of Return	Consumer Expectations	Consumer Wealth	Exchange Rates (Check one) ___ \$Depreciates ___ \$Appreciates	G – Government Spending	Xn – Net Exports		

2. A terrible year in the stock market and the housing market has greatly decreased the value of people’s stocks and homes.

National Income Abroad	Personal Taxes	Household Debt	Real Interest Rates	C – Consumption	Ig – Gross Investment		
Expected Rate of Return	Consumer Expectations	Consumer Wealth	Exchange Rates (Check one) ___ \$Depreciates ___ \$Appreciates	G – Government Spending	Xn – Net Exports		

3. Labor unions overseas win large increases in workers salaries.

National Income Abroad	Personal Taxes	Household Debt	Real Interest Rates	C – Consumption	Ig – Gross Investment		
Expected Rate of Return	Consumer Expectations	Consumer Wealth	Exchange Rates (Check one) ___ \$Depreciates ___ \$Appreciates	G – Government Spending	Xn – Net Exports		

4. The quality of new technologically advanced production robots has greatly increased.

National Income Abroad	Personal Taxes	Household Debt	Real Interest Rates	C – Consumption	Ig – Gross Investment	
Expected Rate of Return	Consumer Expectations	Consumer Wealth	Exchange Rates (Check one) ___ \$Depreciates ___ \$Appreciates	G – Government Spending	Xn – Net Exports	

5. People start borrowing money like there’s no tomorrow!

National Income Abroad	Personal Taxes	Household Debt	Real Interest Rates	C – Consumption	Ig – Gross Investment	
Expected Rate of Return	Consumer Expectations	Consumer Wealth	Exchange Rates (Check one) ___ \$Depreciates ___ \$Appreciates	G – Government Spending	Xn – Net Exports	

6. Business owners are considering purchasing new capital but realize that they already have a large amount of excess capital available

National Income Abroad	Personal Taxes	Household Debt	Real Interest Rates	C – Consumption	Ig – Gross Investment	
Expected Rate of Return	Consumer Expectations	Consumer Wealth	Exchange Rates (Check one) ___ \$Depreciates ___ \$Appreciates	G – Government Spending	Xn – Net Exports	

Continue →

7. Consumers fear another economic great depression is coming

National Income Abroad	Personal Taxes	Household Debt	Real Interest Rates	C – Consumption	Ig – Gross Investment	
Expected Rate of Return	Consumer Expectations	Consumer Wealth	Exchange Rates (Check one) ___ \$Depreciates ___ \$Appreciates	G – Government Spending	Xn – Net Exports	

8. The dollar appreciates in relation to foreign currency

National Income Abroad	Personal Taxes	Household Debt	Real Interest Rates	C – Consumption	Ig – Gross Investment	
Expected Rate of Return	Consumer Expectations	Consumer Wealth	Exchange Rates (Check one) ___ \$Depreciates ___ \$Appreciates	G – Government Spending	Xn – Net Exports	

9. The US Government reduces all personal income tax rates (everyone's taxes are now lower)

National Income Abroad	Personal Taxes	Household Debt	Real Interest Rates	C – Consumption	Ig – Gross Investment	
Expected Rate of Return	Consumer Expectations	Consumer Wealth	Exchange Rates (Check one) ___ \$Depreciates ___ \$Appreciates	G – Government Spending	Xn – Net Exports	

Continue →

10. The government greatly reduces its spending on national defense.

National Income Abroad	Personal Taxes	Household Debt	Real Interest Rates	C – Consumption	Ig – Gross Investment	
Expected Rate of Return	Consumer Expectations	Consumer Wealth	Exchange Rates (Check one) ___ \$Depreciates ___ \$Appreciates	G – Government Spending	Xn – Net Exports	

11. Businesses owners believe that good economic times are ahead with many opportunities to make profits.

National Income Abroad	Personal Taxes	Household Debt	Real Interest Rates	C – Consumption	Ig – Gross Investment	
Expected Rate of Return	Consumer Expectations	Consumer Wealth	Exchange Rates (Check one) ___ \$Depreciates ___ \$Appreciates	G – Government Spending	Xn – Net Exports	

12. The overall price level falls (Careful! Trick question!)

National Income Abroad	Personal Taxes	Household Debt	Real Interest Rates	C – Consumption	Ig – Gross Investment	
Expected Rate of Return	Consumer Expectations	Consumer Wealth	Exchange Rates (Check one) ___ \$Depreciates ___ \$Appreciates	G – Government Spending	Xn – Net Exports	

Name _____ Hour _____

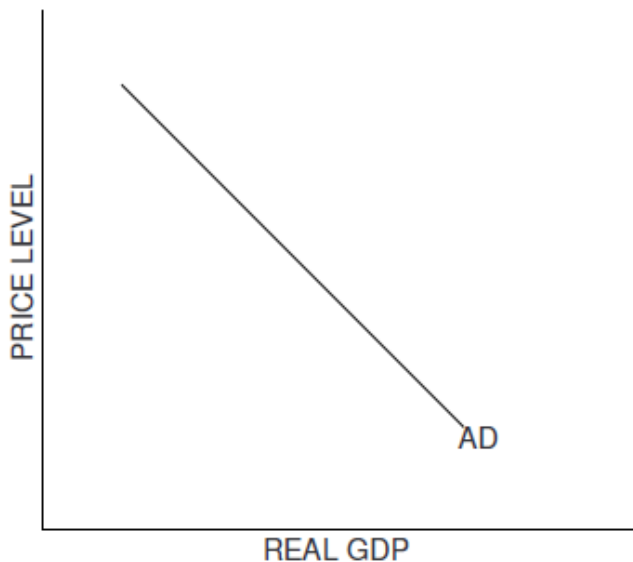
UNIT
3

Macroeconomics

LESSON 3 ■ ACTIVITY 23

*An Introduction to Aggregate Demand***Part A****Why Is the Aggregate Demand Curve Downward Sloping?**

Figure 23.1

Aggregate Demand Curve

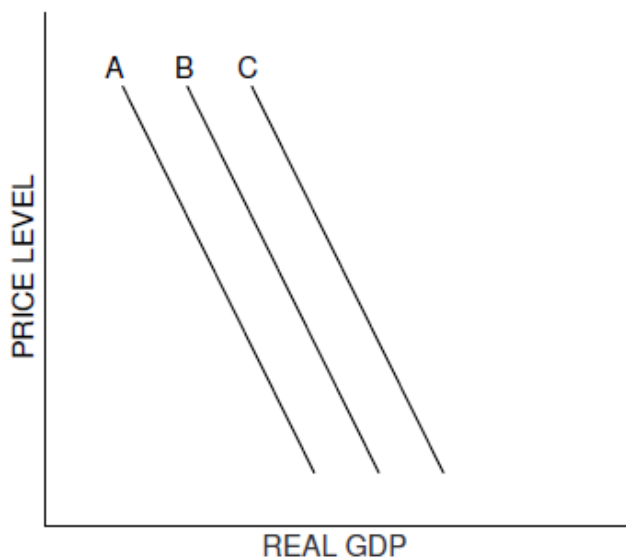
1. According to the AD curve, what is the relationship between the price level and real GDP?
2. Explain how each of the following effects helps explain why the AD curve is downward sloping.
 - (A) Interest rate effect
 - (B) Wealth effect or real-balance effect
 - (C) Net export effect

UNIT 3 Macroeconomics LESSON 3 ■ ACTIVITY 23 (continued)

3. In what ways do the reasons that explain the downward slope of the AD curve differ from the reasons that explain the downward slope of the demand curve for a single product?

Part B What Shifts the Aggregate Demand Curve?

* Figure 23.2
Shifts in Aggregate Demand



4. Using Figure 23.2, determine whether each situation below will cause an increase, decrease or no change in AD. Always start at curve B. If the situation would cause an increase in AD, draw an up arrow in column 1. If it causes a decrease, draw a down arrow. If there is no change, write NC. For each situation that causes a change in aggregate demand, write the letter of the new demand curve in column 2. Move only one curve.

UNIT 3 Macroeconomics **LESSON 3 ■ ACTIVITY 23** (continued)

Situation	1. Change in AD	2. New AD Curve
(A) Congress cuts taxes.		
(B) Autonomous investment spending decreased.		
(C) Government spending to increase next fiscal year; president promises no increase in taxes.		
(D) Survey shows consumer confidence jumps.		
(E) Stock market collapses; investors lose billions.		
(F) Productivity rises for fourth straight year.		
(G) President cuts defense spending by 20 percent; no increase in domestic spending.		

Notes - Consumption, Saving, and the Multiplier Effect

I. Disposable Income

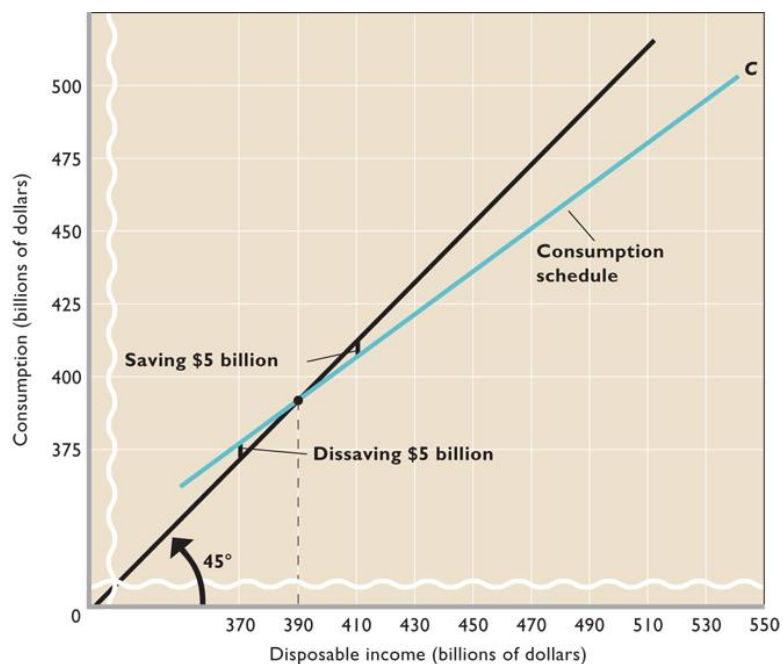
A. Disposable Income:

B. DI =

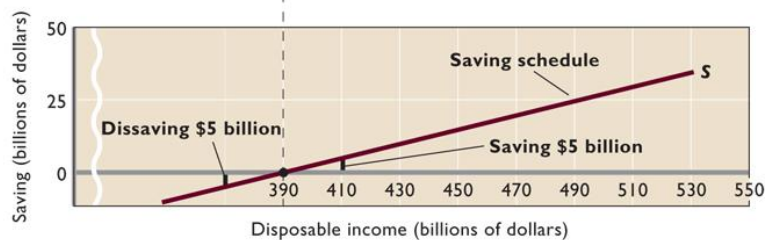
C. DI =

II. Average Propensities

A. Figure 8.2 (With Table 8.1 on separate page)



(a)
Consumption schedule



(b)
Saving schedule

B. The Income Consumption Relationship

1. As disposable income increases ...

2. As disposable income decreases...

C. The Income Savings Relationship

1. As disposable income increases ...

2. As disposable income decreases...

D. Average propensities to consume and save

1. The Average Propensity to Consume (APC):

a. APC =

2. The Average Propensity to Save (APS):

APS =

3. Since all income is either consumed or saved,
APC + APS =

E. The Income APC Relationship

1. As disposable income increases ...

2. As disposable income decreases...

F. The Income APS Relationship

1. As disposable income increases ...

2. As disposable income decreases...

3. In other words...

III. Marginal Propensities

A. The Marginal Propensity to Consume and save.

1. The Marginal Propensity to Consume (MPC):

MPC =

2. The Marginal Propensity to Save (APS):

MPS =

3. Since all income is either consumed or saved, $MPC + MPS =$

a. In our example, $MPC =$, and $MPS =$ for every increase in Disposable Income.

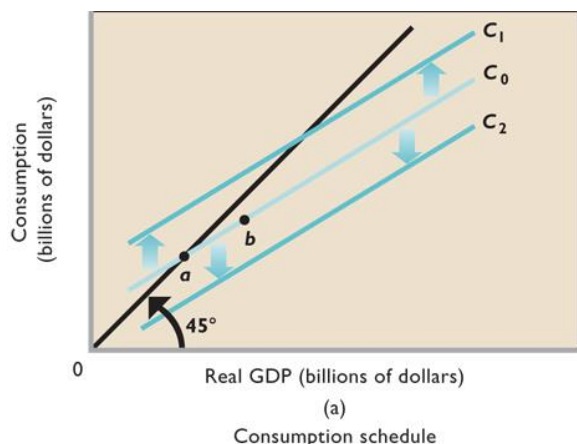
b. The $MPC =$

c. $MPS =$

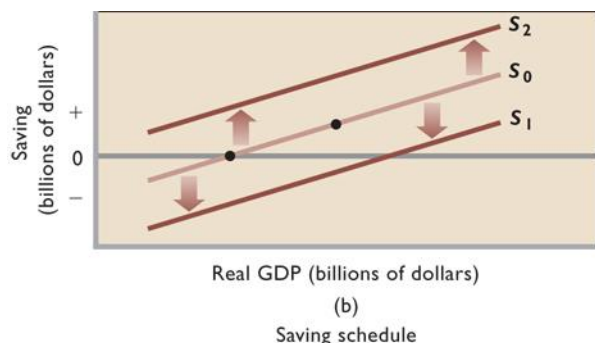
d. Do Example on the Separate Page

IV. Determinants of Changes in Consumption and Savings

A. Changes in Consumption



B. Changes in Savings



C. Determinants of Changes in Consumption and Savings (Note - You already know these from your outline on Aggregate Demand!)

1. Consumer Wealth - as consumer wealth increases, consumption **INCREASES / DECREASES** and savings **INCREASES / DECREASES**.

2. Consumer Expectations - As consumers expect higher future income or higher future prices, consumption **INCREASES / DECREASES** and savings **INCREASES / DECREASES**.

3. Household Debt - As household debt increases, consumption **INCREASES / DECREASES** and savings **INCREASES / DECREASES**.

4. Personal Taxes - As personal taxes increase (careful with this one) consumption **INCREASES / DECREASES** and savings **INCREASES / DECREASES**.

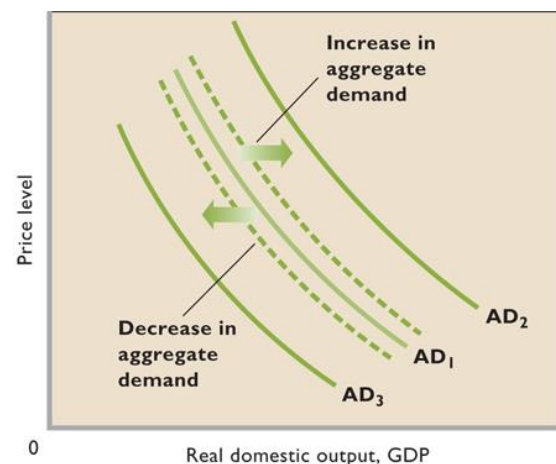
Notes - Consumption, Saving, and the Multiplier Effect - CONTINUED

V. The Multiplier Effect

A. An initial increase in C, Ig, G, or Xn causes AD to increase by more than that initial increase

C. Explanatory Example - An increase in C → an increase in income for whoever sold those consumer goods → increased consumption by that person → an increase in income for whoever sold those consumer goods → increased consumption by that person, and so on.

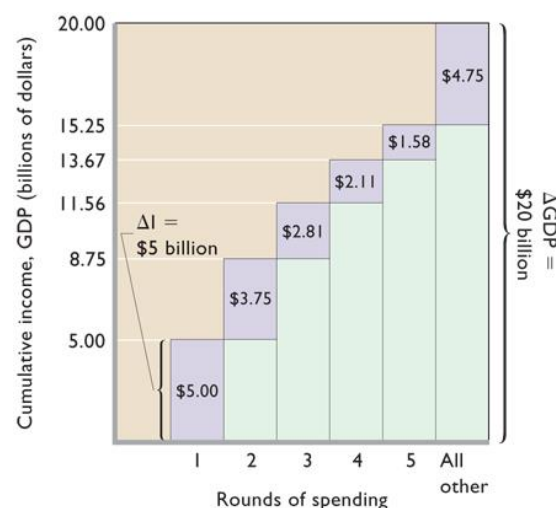
B. Figure 10.2



D. Table 8.3

	(1) Change in Income	(2) Change in Consumption (MPC = .75)	(3) Change in Saving (MPS = .25)
Increase in investment of \$5.00	\$5.00	\$ 3.75	\$1.25
Second round	3.75	2.81	.94
Third round	2.81	2.11	.70
Fourth round	2.11	1.58	.53
Fifth round	1.58	1.19	.39
All other rounds	4.75	3.56	1.19
Total	\$20.00	\$15.00	\$5.00

E. Figure 8.8



F. The overall increase in aggregate demand is determined by multiplying the initial increase in C, Ig, G, or Xn by **the Expenditures Multiplier**.

1. Expenditures Multiplier = _____ or 2. Expenditures Multiplier = _____

G. Example: 1. Expenditures Multiplier in our example is:

2. Initial increase in Ig is:

3. Total increase in Aggregate Demand is:

H. Drains or leaks on the multiplier effect (which make it smaller than the formula states)

1.

2.

Table 8.1

(1) Level of Output and Income (GDP = DI)	(2) Consumption (C)	(3) Saving (S), (1) – (2)	(4) Average Propensity to Consume (APC), (2)/(1)	(5) Average Propensity to Save (APS), (3)/(1)	(6) Marginal Propensity to Consume (MPC), $\Delta(2)/\Delta(1)^*$	(7) Marginal Propensity to Save (MPS), $\Delta(3)/\Delta(1)^*$
(1) \$370	\$375	\$-5	1.01	-.01	.75	.25
(2) 390	390	0	1.00	.00	.75	.25
(3) 410	405	5	.99	.01	.75	.25
(4) 430	420	10	.98	.02	.75	.25
(5) 450	435	15	.97	.03	.75	.25
(6) 470	450	20	.96	.04	.75	.25
(7) 490	465	25	.95	.05	.75	.25
(8) 510	480	30	.94	.06	.75	.25
(9) 530	495	35	.93	.07	.75	.25
(10) 550	510	40	.93	.07		

*The Greek letter Δ , delta, means "the change in."

**Level of Output
and income**

(GDP = DI)	Consumption	Saving	APC	APS	MPC	MPS
\$240	\$ _____	\$-4	_____	_____	_____	_____
260	\$ _____	0	_____	_____	_____	_____
280	\$ _____	4	_____	_____	_____	_____
300	\$ _____	8	_____	_____	_____	_____
320	\$ _____	12	_____	_____	_____	_____
340	\$ _____	16	_____	_____	_____	_____
360	\$ _____	20	_____	_____	_____	_____
380	\$ _____	24	_____	_____	_____	_____
400	\$ _____	28	_____	_____	_____	_____

Name _____ Hour _____

UNIT
3

Macroeconomics

LESSON 1 ■ ACTIVITY 20

*Practice with APC, APS, MPC and MPS***Part A****Average Propensities**

The *average propensity to consume* (APC) is the ratio of consumption expenditures (C) to disposable income (DI), or $APC = C / DI$.

The *average propensity to save* (APS) is the ratio of savings (S) to disposable income, or $APS = S / DI$.

- Using the data in Figure 20.1, calculate the APC and APS at each level of disposable income given. The first calculation is completed as an example.



Figure 20.1

Average Propensities to Consume and to Save

Disposable Income	Consumption	Saving	APC	APS
\$0	\$2,000	-\$2,000	—	—
2,000	3,600	-1,600	1.8	-0.8
4,000	5,200	-1,200		
6,000	6,800	-800		
8,000	8,400	-400		
10,000	10,000	0		
12,000	11,600	400		

- How can savings be negative? Explain.

Part B**Marginal Propensities**

The *marginal propensity to consume* (MPC) is the change in consumption divided by the change in disposable income. It is a fraction of any change in DI that is spent on consumer goods: $MPC = \Delta C / \Delta DI$.

The *marginal propensity to save* (MPS) is the fraction saved of any change in disposable income. The MPS is equal to the change in saving divided by the change in DI: $MPS = \Delta S / \Delta DI$.

- Using the data in Figure 20.2, calculate the MPC and MPS at each level of disposable income. The first calculation is completed as an example. (This is not a typical consumption function. Its purpose is to provide practice in calculating MPC and MPS.)

UNIT
3
Macroeconomics LESSON 1 ■ ACTIVITY 20 (continued)


Figure 20.2

Marginal Propensities to Consume and to Save

Disposable Income	Consumption	Saving	MPC	MPS
\$12,000	\$12,100	-\$100	—	—
13,000	13,000	0	0.90	0.10
14,000	13,800	200		
15,000	14,500	500		
16,000	15,100	900		
17,000	15,600	1,400		

4. Why must the sum of MPC and MPS always equal 1?

Part C


Figure 20.3

Changes in APC and MPC as DI Increases

Disposable Income	Consumption	Savings	APC	APS	MPC	MPS
\$10,000	\$12,000	-\$2,000			—	—
20,000	21,000	-1,000				
30,000	30,000	0				
40,000	39,000	1,000				
50,000	48,000	2,000				
60,000	57,000	3,000				
70,000	66,000					

5. Complete Figure 20.3, and answer the questions based on the completed table.
6. What is the APC at a DI level of \$10,000? _____ At \$20,000? _____
7. What happens to the APC as DI rises? _____
8. What is the MPC as DI goes from \$50,000 to \$60,000? _____ From \$60,000 to \$70,000? _____
9. What happens to MPC as income rises? _____ What happens to MPS as income rises? _____
10. What is the conceptual difference between APC and MPC?

Name _____ Hour _____

The Multiplier Effect (Key Question #9 - Chapter 8)1. Explain (in English, not with formulas) what **the multiplier effect** is.

2. What is the relationship between the size of the MPC and the size of the expenditures multiplier?

COMPLETE THE ANSWER: "A large MPC causes ..."

3. What is the **MPS** (do NOT just say the Marginal Propensity to Save)?4. What will the expenditures multiplier be when the **MPS** is...

a. .2?	b. .4?	c. .6?	d. .8?
--------	--------	--------	--------

5. What will the expenditures multiplier be when the **MPC** is

a. .8?	b. .90?	c. .67?	d. .50?	e. .6
--------	---------	---------	---------	-------

6. How much of a change in GDP will result if firms increase their level of investment by \$8 billion and the MPC is...

a. .80?	b. .67?
---------	---------

Name _____ Hour _____

Notes – chapter 10 – Aggregate Demand and Aggregate Supply – Part 2: Aggregate Supply (Pg 192-196)

I. Aggregate Supply

A. **Aggregate Supply** (Define it):

1. Long-run:

2. Short-run:

<p>II. Aggregate Supply in the Long Run</p> <p>A. Short-run supply curves slope _____ because at higher prices, producers will make “_____” by making and selling more goods.</p> <p>B. However, in the long-run, higher prices lead to _____ (& other resource prices).</p> <p>C. Therefore, it now costs firms more to make more goods. The "extra-profits" are erased by the higher wages they must pay, so they no longer make "extra-profits" by making more.</p> <p>D. So, they go back to making what they were before the higher prices, which is ...</p>	<p>E. Draw and fully label the Long-Run Aggregate Supply Curve (Figure 10.3)</p>
---	--

<p>III. Aggregate Supply in the Short Run</p> <p>A. In the short run, before wages increases catch up with price increases, “extra profits” are possible from extra output.</p> <p>C. So producers will produce _____ at higher prices.</p> <p>D. Therefore, the short-run aggregate supply curve slopes UPWARD / DOWNWARD from left to right</p> <p>E. As price level increases, the supply of real output (GDP) INCREASES / DECREASES</p> <p>F. As price level decreases, the supply of real output INCREASES / DECREASES</p> <p>G. Price level and the amount of real GDP supplied are POSITIVELY / NEGATIVELY related.</p>	<p>H. Draw and fully label the Short-Run Aggregate Supply Curve (Figure 10.4)</p>
--	---

IV. Changes in Aggregate Supply (pages 193-196).

<p>A. Changes in price level (inflation or deflation) cause movement along the existing AS curve.</p> <p>B. Factors that cause a shift of the aggregate supply curve are called _____ _____ or _____.</p> <p>C. Per-unit Production Costs: The cost of making each unit of a product to sell.</p> <p>D. Per-unit Production Costs = (pg 193)</p> <p>E. Changes that decrease per-unit production costs shift the AS curve to the LEFT / RIGHT</p> <p>F. Changes that increase per-unit production costs shift the AS curve to the LEFT / RIGHT</p>	<p>G. Draw and fully label an increase and decrease in AS (Figure 10.5)</p>
---	---

H. Determinants of Aggregate Supply**1. Input Prices**

- a. An increase in input costs will shift the AS curve to the left
- b. A decrease in input costs will shift the AS curve to...
- c. Factors that influence overall input costs.
 - 1.) Domestic Resource Prices
 - a.) Increases in the cost of land, capital, and **especially labor** INCREASE / DECREASE input prices.
 - b.) Decreases in the costs of land, capital, and labor ...
 - 2.) Prices of Imported Resources
 - a.) Increases in the costs of imported resources (like oil, tin, copper) will INCREASE / DECREASE input costs.
 - b.) Decreases in the costs of imported resources...
 - 3.) Market Power (Explain it:)
 - a.) An example of an organization that has great market power over oil prices is...
 - b.) An increase in market power INCREASES / DECREASES input prices
 - c.) A decrease in market power ...

2. Expected Inflation (This one is related to the one you just did, but it is not in the book, so read here and complete the sentence). If producers expect higher inflation in the future, then they **believe** that their input costs will rise and they will behave just like they would if input costs actually did rise.

- a. Expected inflation will shift the AS curve to ...

3. Productivity: How much output can be made from a given amount of input.

- a. Productivity =
(copy the formula)

- b. An increase in productivity will shift the AS curve to the LEFT / RIGHT
- c. A decrease in productivity will shift the AS curve to the LEFT / RIGHT
- d. The main source of productivity advance is ...
- e. Another sourced is a better educated / better trained workforce.

4. Legal - Institutional Environment

- a. A favorable legal - institutional environment will shift the AS curve to the LEFT / RIGHT
- b. An unfavorable legal - institutional environment will shift the AS curve to the LEFT / RIGHT
- c. Factors that make up the legal - institutional environment

1.) Business Taxes and Subsidies

- a.) An increase in business taxes or the removal of a subsidy would contribute to a(n) FAVORABLE / UNFAVORABLE legal - institutional environment.
- b.) A decrease in business taxes or granting of a subsidy would contribute to...

2.) Government Regulation

- a.) An increase in government regulations would contribute to a(n) FAVORABLE / UNFAVORABLE legal - institutional environment.
- b.) A decrease in government regulations would contribute to ...

Name _____ Hour _____

UNIT 3 Macroeconomics

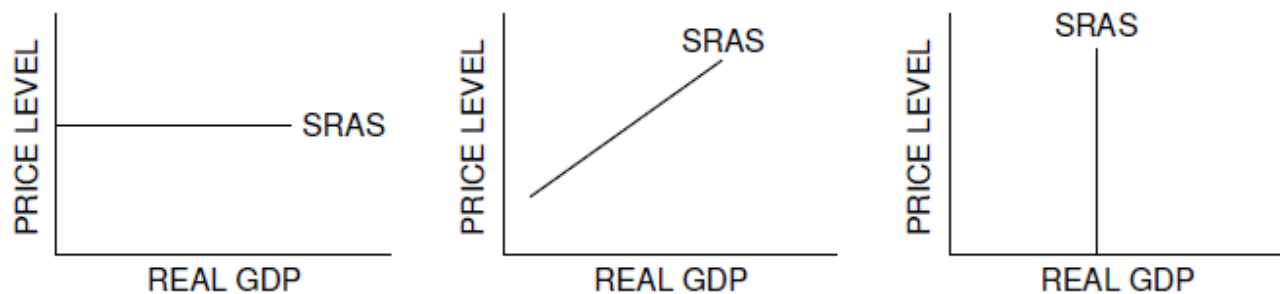
LESSON 4 ■ ACTIVITY 24

An Introduction to Short-Run Aggregate Supply

Part A

Why Can the Aggregate Supply Curve Have Three Different Shapes?

* Figure 24.1
Possible Shapes of Aggregate Supply Curve



1. Under what conditions would an economy have a horizontal SRAS curve?
2. Under what conditions would an economy have a vertical SRAS curve?
3. Under what conditions would an economy have a positively sloped SRAS curve?

- Assume AD increased. What would be the effect on real GDP and the price level if the economy had a horizontal SRAS curve? A positively sloped SRAS curve? A vertical SRAS curve?
- What range of the SRAS curve do you think the economy is in today? Explain.

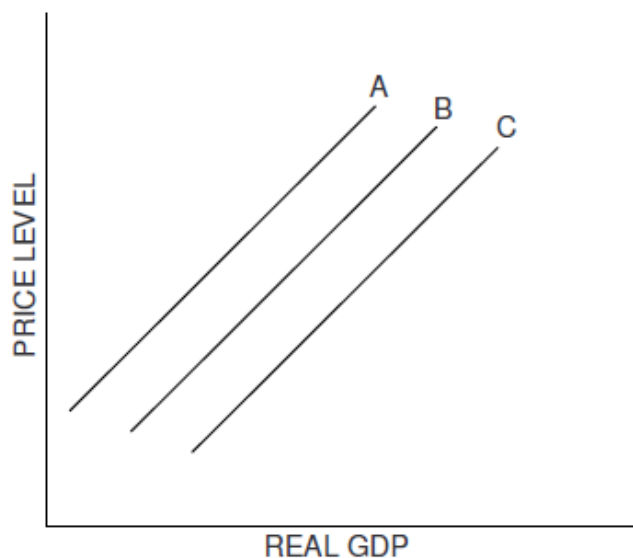
Part B

What Shifts the Short-Run Aggregate Supply Curve?



Figure 24.2

Shifts in Short-Run Aggregate Supply



- Using Figure 24.2, determine whether each situation below will cause an increase, decrease or no change in short-run aggregate supply (SRAS). Always start at curve B. If the situation would cause an increase in SRAS, draw an up arrow in column 1. If it causes a decrease, draw a down arrow. If there is no change, write NC. For each situation that causes a change in SRAS, write the letter of the new curve in column 2. Move only one curve.

UNIT 3 Macroeconomics **LESSON 4 ■ ACTIVITY 24** (continued)

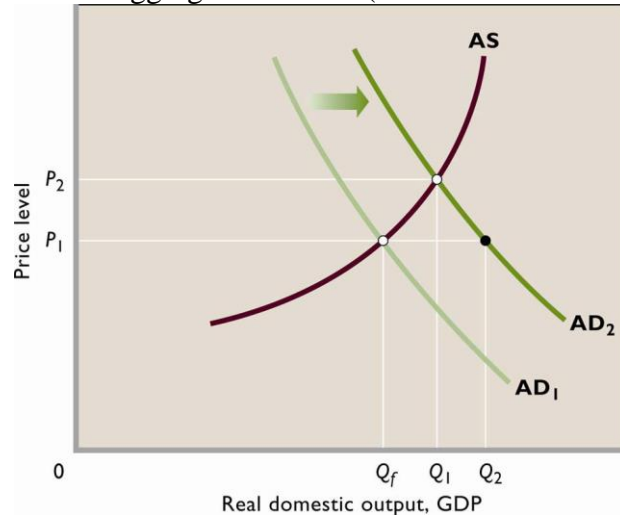
Situation	1. Change in SRAS	2. New SRAS Curve
(A) Unions grow more aggressive; wage rates increase.		
(B) OPEC successfully increases oil prices.		
(C) Labor productivity increases dramatically.		
(D) Giant natural gas discovery decreases energy prices.		
(E) Computer technology brings new efficiency to industry.		
(F) Government spending increases.		
(G) Cuts in tax rates increase incentives to save.		
(H) Low birth rate will decrease the labor force in future.		
(I) Research shows that improved schools have increased the skills of American workers and managers.		

Notes – Aggregate Equilibrium

Equilibrium	Equilibrium Price and Quantity (GDP output)																		
	<div style="display: flex; align-items: center; justify-content: center;"> <div style="background-color: #800040; color: white; padding: 5px; font-size: small; margin-right: 10px;"> Chapter 10 AD-AS Model Changes in Aggregate Demand Aggregate Supply Changes in Aggregate Supply Equilibrium and Changes in Equilibrium Increase in AD Decrease in AD Decrease in AS Increase in AS Last Word Appendix Key Terms End Show 10-13 </div> <div style="text-align: center;"> <h3>Equilibrium and Changes in Equilibrium</h3> <p><i>Tabular View...</i></p> <table border="1" style="border-collapse: collapse; text-align: center;"> <thead> <tr style="background-color: #d9ead3;"> <th>Real Output Demanded (Billions)</th> <th>Price Level (Index Number)</th> <th>Real Output Supplied (Billions)</th> </tr> </thead> <tbody> <tr> <td>\$506</td> <td>108</td> <td>\$513</td> </tr> <tr> <td>508</td> <td>104</td> <td>512</td> </tr> <tr style="background-color: yellow;"> <td>510</td> <td>100</td> <td>510</td> </tr> <tr> <td>512</td> <td>96</td> <td>507</td> </tr> <tr> <td>514</td> <td>92</td> <td>502</td> </tr> </tbody> </table> <p>Equilibrium Price Level and Equilibrium Price Level</p> </div> </div>	Real Output Demanded (Billions)	Price Level (Index Number)	Real Output Supplied (Billions)	\$506	108	\$513	508	104	512	510	100	510	512	96	507	514	92	502
Real Output Demanded (Billions)	Price Level (Index Number)	Real Output Supplied (Billions)																	
\$506	108	\$513																	
508	104	512																	
510	100	510																	
512	96	507																	
514	92	502																	

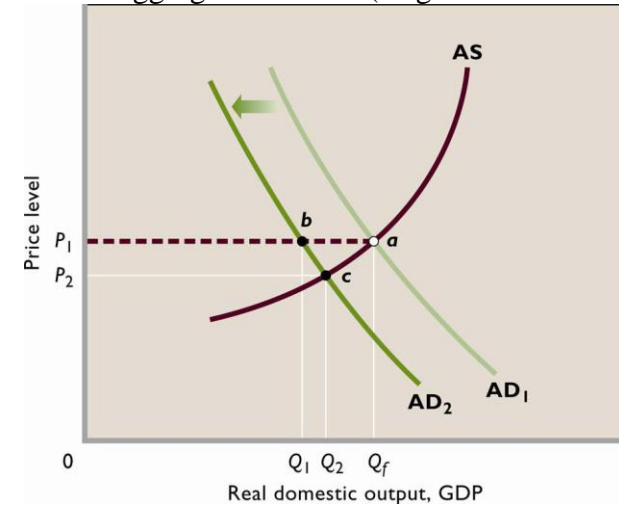
1. Market equilibrium is established where the AD and AS curves ...
2. Together, these curves determine the _____ and _____
3. At a price level of 92 (GDP price index = 92), quantity demanded would be _____, but quantity supplied would be _____. This is a ...
4. As a result, prices go UP / DOWN → quantity demanded UP / DOWN; quantity supplied goes UP / DOWN until equilibrium is reached.
5. At a price level above 100 (something like GDP price index = 110), quantity demanded would be _____ but quantity supplied would be _____. This is a ...
6. As a result, prices go UP / DOWN → quantity demanded goes UP / DOWN; quantity supplied goes UP / DOWN until equilibrium is reached.

Increases in Aggregate Demand (Positive Demand Shock)



1. _____ in C, Ig, G, or Xn cause AD to shift to the right.
2. Effect on Real Output (Real GDP): INCREASE / DECREASE
3. Unemployment effect: INCREASE / DECREASE
4. Business Cycle Phase:
 - a. Likely type of unemployment:
 FRICTIONAL STRUCTURAL CYCLICAL
5. Effect on the price level: INFLATION / DEFLATION
 - a. Here, the increase in demand pulls up prices.
 - b. Therefore, Inflation that occurs because of an increase in demand is called ...
 - c. Multiplier Effect:
 1. $Q_f \rightarrow$ _____, not to _____

Decreases in Aggregate Demand (Negative Demand Shock)

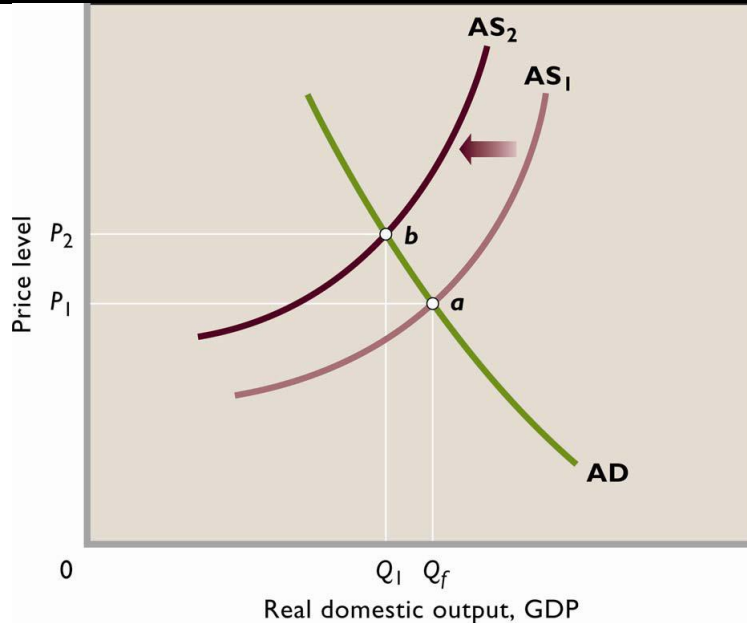


1. _____ in C, Ig, G, or Xn cause AD to shift the left.
2. Effect on Real Output (Real GDP): INCREASE / DECREASE
3. Unemployment effect: INCREASE / DECREASE
4. Business Cycle Phase:
 - a. Likely type of unemployment:
 FRICTIONAL STRUCTURAL CYCLICAL
5. Effect on **Equilibrium** price level:
 INFLATION / DEFLATION
6. Effect on **Actual** price level:

Homework: Be sure you carefully read pages 198 - 199 and take careful notes at the end of this packet as to why this is the case for the test.

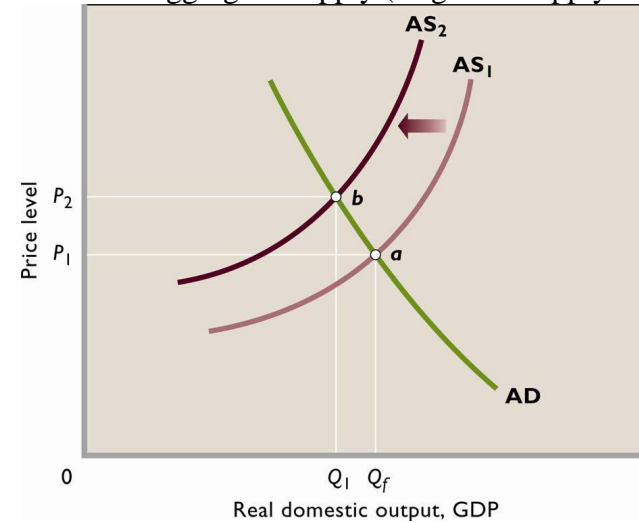
 - a. Multiplier Effect:
 1. $Q_f \rightarrow$ _____, not _____

An increase in Aggregate Supply (Positive Supply Shock) **(No Correct Image Available. You must reverse the direction by hand)**



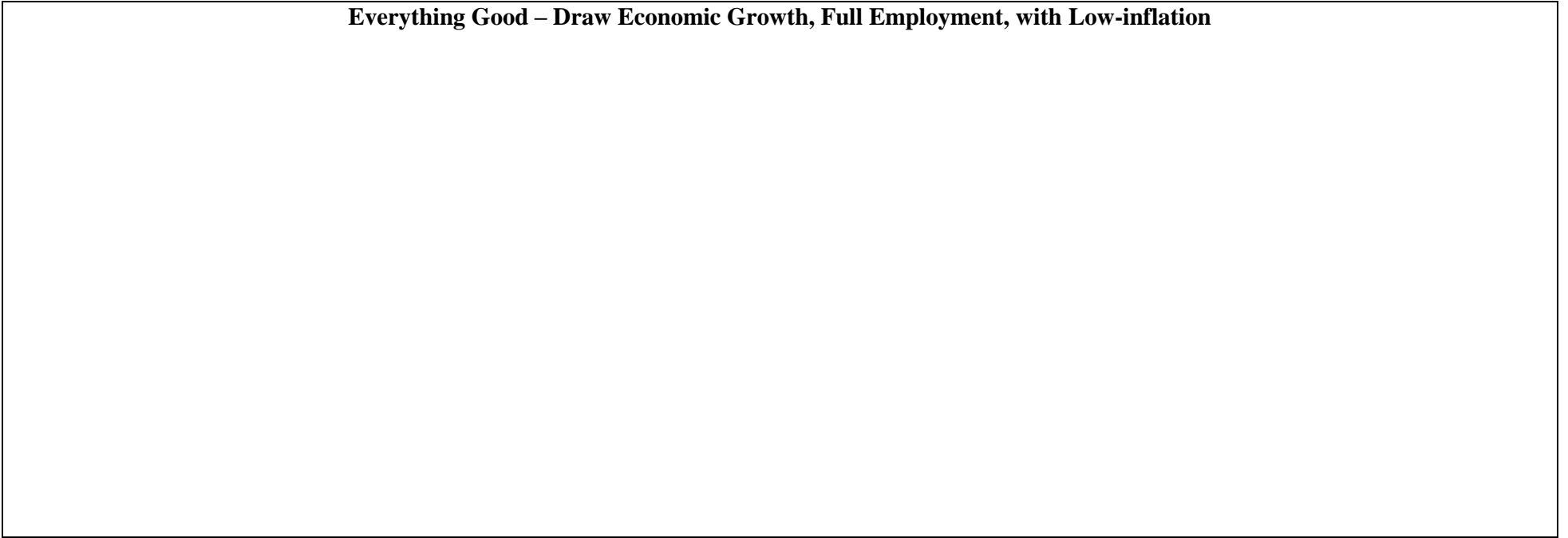
1. _____ in Input Prices, _____ in Productivity, or _____ Legal - Institutional Environment cause AS to shift to the right.
2. Effect on Real Output (Real GDP): INCREASE / DECREASE
3. Unemployment effect: INCREASE / DECREASE
4. Business Cycle Phase:
 - a. Likely type of unemployment: FRictional STRuctural CYCLICAL
5. Effect on **Equilibrium** price level: INFLATION / DEFLATION
6. Effect on **Actual** price level:

A decrease in Aggregate Supply (Negative Supply Shock)



1. _____ in Input Prices, _____ in Productivity, or _____ Legal - Institutional Environment cause AS to shift to the left.
2. Effect on Real Output (Real GDP): INCREASE / DECREASE
3. Unemployment effect: INCREASE / DECREASE
4. Business Cycle Phase:
 - a. Likely type of unemployment: FRictional STRuctural CYCLICAL
5. Effect on the price level: INFLATION / DEFLATION
 - a. Here, the decrease in supply pushes up prices.
 - b. These decreases in supply are often the result of...
 - 1.) Example:
- c. Inflation that occurs because of a decrease in supply is called...

Everything Good – Draw Economic Growth, Full Employment, with Low-inflation



Reasons for "Sticky Prices," prices, prices are not flexible downward (Page 198 - 199).

- 1.
- 2.
- 3.
- 4.
- 5.

Name _____ Hour _____

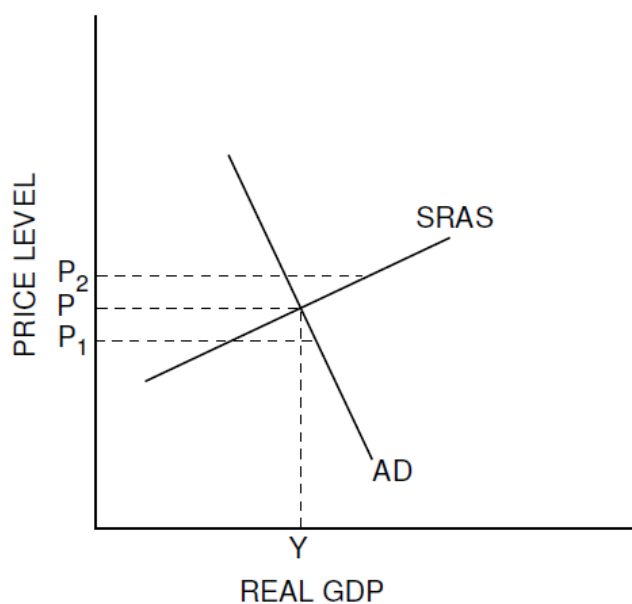
UNIT
3

Macroeconomics

LESSON 5 ■ ACTIVITY 25

*Short-Run Equilibrium Price Level and Output***Part A**
Equilibrium

Figure 25.1
Equilibrium Price and Output Levels



1. What are the equilibrium price level and output? _____
2. What would eventually happen to the price level and output if the initial price level were P_2 rather than P ? Why would this happen?
3. What would eventually happen to the price level and output if the initial price level were P_1 rather than P ? Why would this happen?

UNIT 3 Macroeconomics **LESSON 5 ■ ACTIVITY 25** (continued)

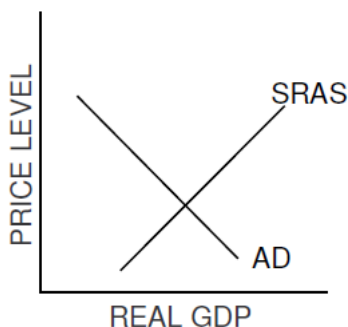
Part B

Changes in the Equilibrium Price Level and Output

For each situation described below, illustrate the change on the AD and AS graph and describe the effect on the equilibrium price level and real GDP by circling the correct symbol: ↑ for increase, ↓ for decrease, or — for unchanged.

4. Congress passes a tax cut for the middle class, and the president signs it.

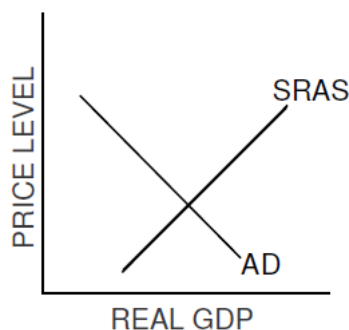
Middle Class Tax Cut



Price level: ↑ ↓ —
 Real GDP: ↑ ↓ —

5. During a recession, the government increases spending on schools, highways and other public works.

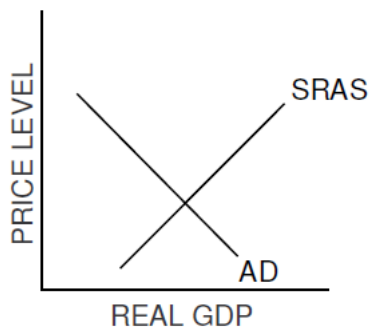
Increased Government Spending



Price level: ↑ ↓ —
 Real GDP: ↑ ↓ —

6. New oil discoveries cause large decreases in energy prices.

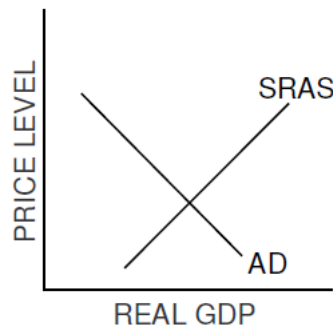
New Oil Discoveries



Price level ↑ ↓ —
 Real GDP ↑ ↓ —

7. Illustrate the effects of an increase in aggregate demand.

Effects of an Increase in AD

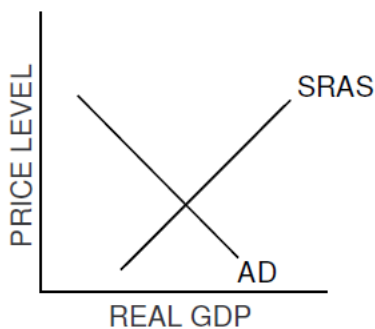


Price level ↑ ↓ —
 Real GDP ↑ ↓ —

UNIT 3 Macroeconomics **LESSON 5 ■ ACTIVITY 25** (contin

8. Illustrate the effects of increases in production costs.

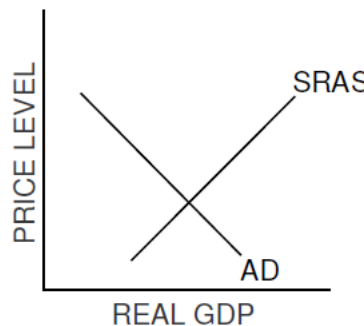
Effects of Increases in Production Costs



Price level	↑	↓	—
Real GDP	↑	↓	—

9. New technology and better education increase productivity.

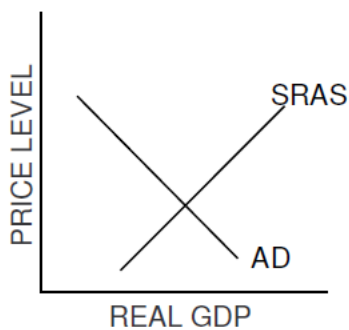
Effects of New Technology and Better Education



Price level	↑	↓	—
Real GDP	↑	↓	—

10. A new president makes consumers and businesses more confident about the future economy. Note: Show the change in AD only.

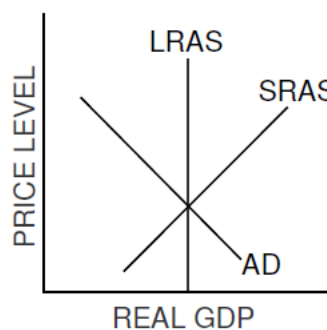
Increased Confidence for Future Economy



Price level	↑	↓	—
Real GDP	↑	↓	—

11. With the unemployment rate at five percent, the federal government reduces personal taxes and increases spending. Note: Show the change in AD on

Reduced Taxes and Increased Government Spending



Price level	↑	↓	—
Real GDP	↑	↓	—

UNIT 3 Macroeconomics **LESSON 5 ■ ACTIVITY 25** (continued)

Part C

Summarizing Aggregate Demand and Aggregate Supply Shifts

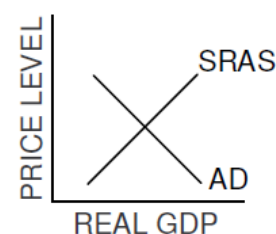
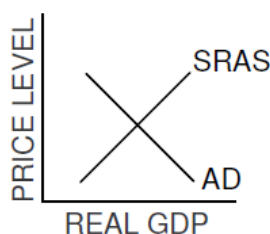
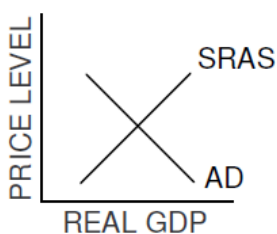
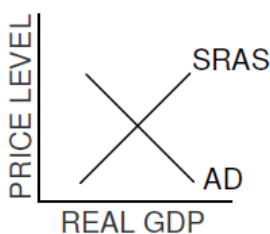
For each of the events below, make additions to the graph to illustrate the change. Then indicate the response in terms of shifts in or movements along the aggregate demand or aggregate supply curve and the short-run effect on real GDP and the price level. Indicate *shifts* in the curve by S and movements *along* the curve by A. Indicate the changes in price level, unemployment and real GDP with an up arrow for an increase and a down arrow for a decrease.

1. Increase in labor productivity due to technological change

2. Increase in the price of inputs used by many firms

3. Boom in investment assuming some unemployed resources are available

4. A major reduction in investment spending



AD Curve	_____	_____	_____	_____
AS Curve	_____	_____	_____	_____
Real GDP	_____	_____	_____	_____
Price Level	_____	_____	_____	_____
Unemployment	_____	_____	_____	_____