

# AP<sup>®</sup> Macro Unit 3: National Income and Price Determination

## Topic 3.1- Aggregate Demand (AD)

1. What is the difference between a market demand curve and the aggregate demand curve?

A market demand shows the demand for one good/service at different prices. Aggregate demand shows the demand for all goods and services at different price levels

2. What three concepts explain why aggregate demand is downward sloping?

Real wealth effect

Interest rate effect

Exchange rate effect

3. What are the shifters of aggregate demand?

Anything that changes consumer spending, business investment, government spending, and/or net exports

## Topic 3.3- Short-run Aggregate Supply (SRAS)

1. Why is short-run aggregate supply upward sloping? Wages and resource prices are not flexible in the short-run.

2. What are the shifters of short-run aggregate supply? Anything that affects producers and production. Availability and price of resources, actions of the government (business taxes, subsidies, regulation), and expected inflation.

## Topic 3.4- Long-run Aggregate Supply (LRAS)

1. Why is long-run aggregate supply vertical? In the long run, wages and resource prices are flexible. When price level increases, wages will increase by the same amount

## Topic 3.2- Multipliers

1. What is the multiplier effect?

The idea that an initial change in spending will set off a spending chain that is magnified in the economy. The strength of multiplier depends on the amount that consumers spend of new income.

2. Define marginal propensity to consume (MPC)

How much people consume rather than save when there is a change in income

4. Define marginal propensity to save (MPS)

How much people save rather than consume when there is a change in income

5. Equation for the simple spending multiplier  
 $1/MPS$

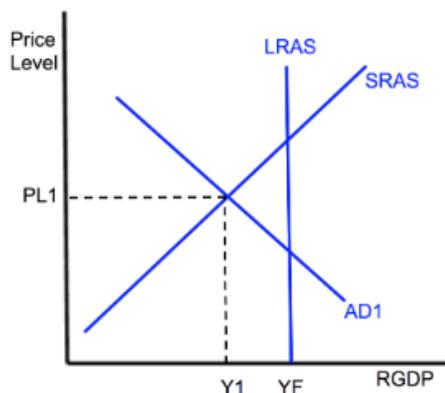
6. Equation for the tax multiplier  
 $MPC/MPS$  or  $1/MPS - 1$

7. Fill in the blanks below:

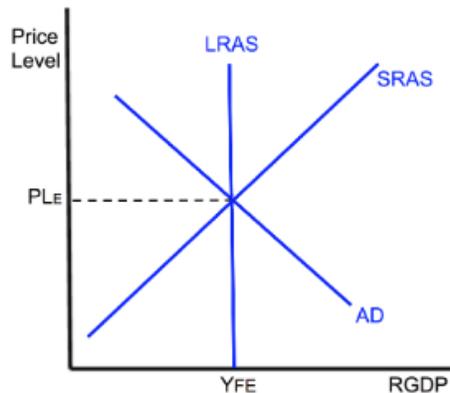
Initial Change	Initial Amount	MPC	Maximum Change
↓ G	\$30 billion	.5	↓\$60 billion
↑ C	\$20 billion	.9	↑\$200 billion
↓ Taxes	\$10 billion	.8	↑\$40 billion
↑ I	\$20 billion	.75	↑\$80 billion
↑ M	\$10 billion	.9	↓\$100 billion
↑ X	\$10 billion	.8	↑\$50 billion
↑ Transfer Payments	\$20 billion	.9	↑\$180 billion

## Topic 3.5- Equilibrium in the AD-AS Model

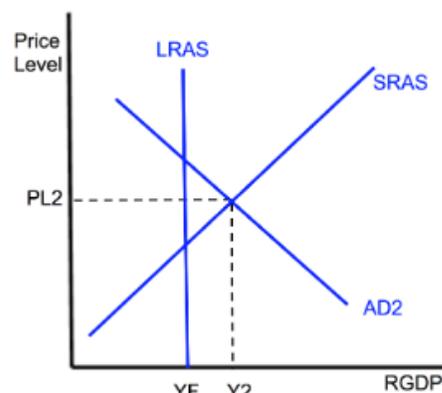
1. Draw an economy with a negative output gap



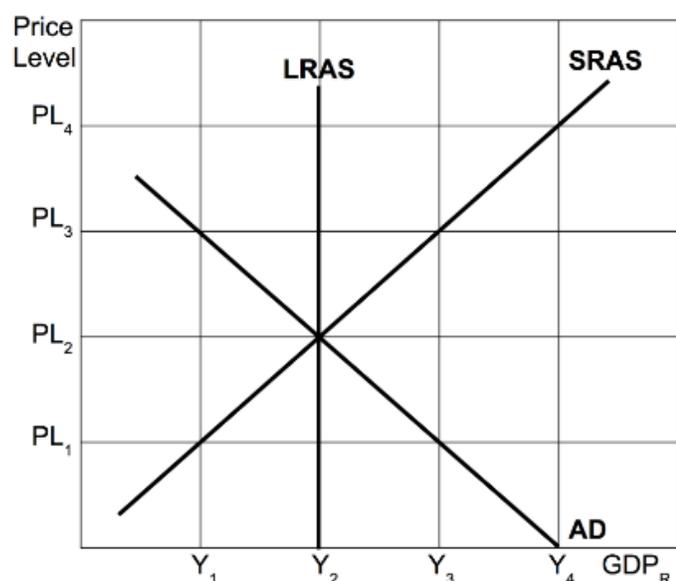
2. Draw an economy at full employment



3. Draw an economy with a positive output gap



### Topic 3.6- Changes in the AD-AS Model in the Short Run



Answer the following questions (assume that each event takes places independently)

1. What is the short-run equilibrium price level and output? **PL2 Y2**
2. Identify the short-run equilibrium price level and output if consumption increased? **PL3 Y3**
3. Identify the short-run equilibrium price level and output after a negative supply shock? **PL3 Y1**
4. What happens to output and unemployment if investment falls? **Output↓ Unemployment↑**
5. Use the graph to explain the difference between demand-pull and costs-push inflation.  
**Demand-pull inflation is caused by an increase in aggregate demand and cost-push inflation is caused by a decrease in aggregate supply**

6. What is a negative supply shock?

**An unexpected decrease in the availability of a key resource that temporarily decreases productivity**

7. What is a positive supply shock?

**An unexpected increase in the availability of a key resource that temporarily increases productivity**

8. Define stagflation

**When there is high unemployment and high inflation. It is the result of a decrease in SRAS.**

9. Define deflation

**A decrease in the general price level. The opposite of inflation**

10. What is autonomous consumption?

**The minimum amount of consumer spending when people have no income**

11. What is disposable income?

**The amount of money households have to spend or save after taxes**

### Topic 3.7- Long-run Self-Adjustment

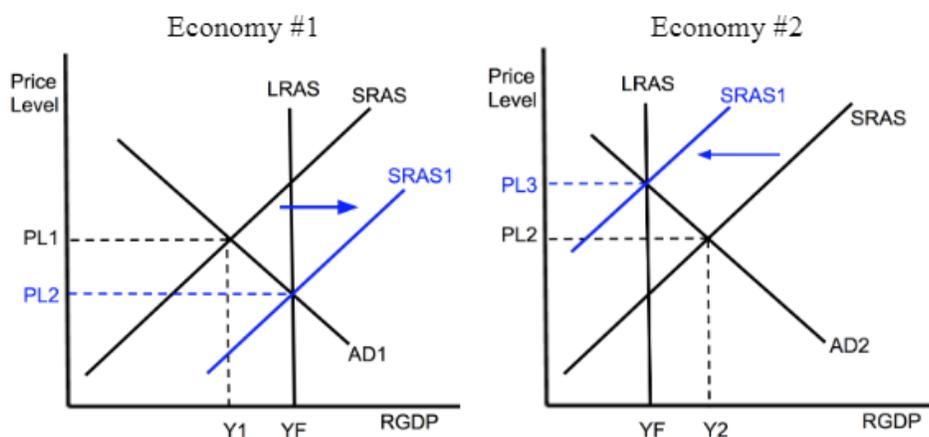
1. Explain how the economy self-adjusts in the long run when there is a negative output gap

**A decrease in wages and resource prices causes production costs to falls and SRAS to shift to the right**

2. Explain how the economy self-adjusts in the long run when there is a positive output gap

**An increase in expected inflation causes wages to increase and SRAS to shift to the left.**

3. Assuming wages and resource prices are flexible, show how each economy below will self-adjust in the long run



4. Assume instead that Economy #2 experiences economic growth. What happens to LRAS and output? **LRAS shifts to the right and output increases.**

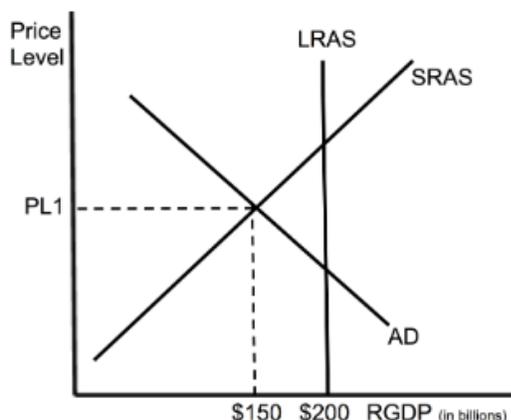
5. Does the natural rate of unemployment increase, decrease, or stay the same when the LRAS shifts right? **NRU stays the same**

### Topic 3.8- Fiscal Policy

1. Define expansionary fiscal policy **Laws that increase output by increasing government spending or decreasing taxes**
2. Define contractionary fiscal policy **Laws that decrease inflation by decreasing government spending or increasing taxes**

3. Explain why an increase in government spending will lead to more total spending than a decrease in taxes by the same amount. **Households save a portion of a tax cut. The tax multiplier is less than the spending multiplier.**

Use the graph to answer the questions to the right. Assume wages and resource prices are flexible.



4. Is there a recessionary gap or inflationary gap? **Recessionary. Actual output below potential**
5. What happens to price level and output in the long run if no policy action is taken? **Price level will decrease, output will increase**
6. Assume instead that the government decides to use fiscal policy. Identify two policies that could close the gap. **Increase in government spending or decrease taxes on consumers**
7. If the MPC is .5, what is the least amount of government spending that could close the gap? **\$25 billion**
8. If the MPC is .5, what is the least amount the government could cut taxes to close the gap? **\$50 billion tax cut**
9. Assume instead that the MPC is .9. What is the least amount of government spending that could close the gap? **\$5 billion tax cut**
10. Would an increase in private saving increase or decrease the effectiveness of fiscal policy? **Increasing savings will decrease the effective of fiscal policy since the multiplier falls**
11. Why are there lags when the government uses discretionary fiscal policy? **It takes time to decide on and implement a policy action**

### Topic 3.9- Automatic Stabilizers

1. Define discretionary fiscal policy **Congress creates a new bill that is designed to change AD through government spending or taxation.**
2. Define non-discretionary fiscal policy **Permanent spending or taxation laws enacted to work counter cyclically to stabilize the economy**
3. Identify three different examples of automatic stabilizers. **Unemployment benefits, welfare, progressive income taxes, etc.**

### Unit Review

#### True or False

1. An increase in expected inflation will decrease the short-run aggregate supply. **True**
2. An increase in interest rates will increase investment and aggregate demand. **False**
3. The spending multiplier is weaker than the tax multiplier. **False**
4. Fiscal policy includes government spending and taxation. **True**
5. If the MPS is .2 the tax multiplier is 4. **True**
6. When the MPC increases, the spending multiplier decreases. **False**
7. Jacob Clifford is very attractive. **True? ☺**

Scenario	Change in AD or AS	↑ or ↓
8. Government uses expansionary fiscal policy	AD	↑
9. No policy when there is a recession	SRAS	↑
10. Government increases taxes on consumers	AD	↓
11. There is a decrease in imports	AD	↑
12. Positive output gap. Government takes no policy	SRAS	↓