



## BIG PICTURE IDEAS

- #1. Policymakers often combine **fiscal** policy and **monetary** policy to influence the economy.
- #2. The short-run **Phillips** curve shows a trade-off between **inflation** and unemployment.
- #3. Expansionary monetary policy can stimulate the economy in the short run, but according to the **quantity** theory of money, it will lead to higher **inflation** in the long run.
- #4. An increase in deficit spending increases the national **debt** and often results in an increase in the real interest rate and less investment, or **crowding** out.
- #5. More physical or human capital causes economic growth and shifts the long-run aggregate supply curve to the **right**.

### Topic 5.1- Fiscal and Monetary Policy in the Short Run

1. Identify if each will ↑, ↓, or not change in the short run:

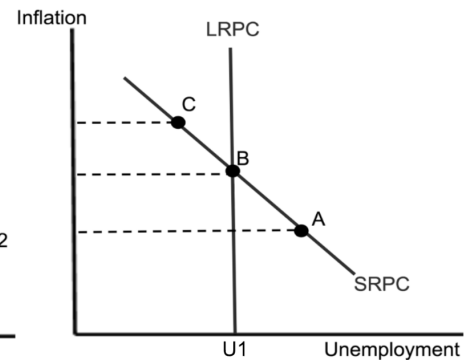
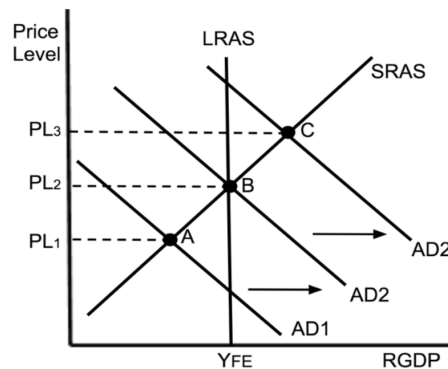
Policy	Aggregate Demand	Aggregate Supply
Contractionary monetary policy	↓	No change
No policy with negative output gap	No change	↑
Expansionary fiscal policy	↑	No change
Expansionary monetary policy	↑	No change
Contractionary fiscal policy	↓	No change
No policy with positive output gap	No change	↓

True or False

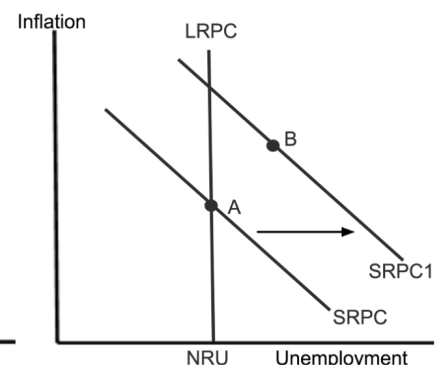
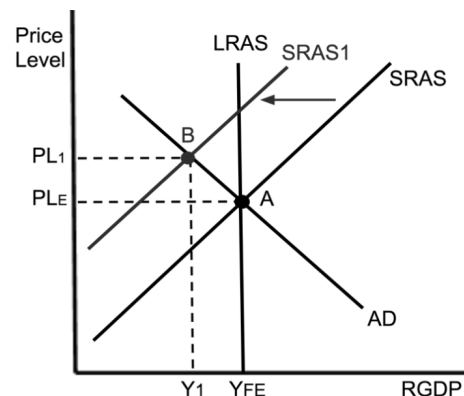
- 2. Open market operations are an example of fiscal policy. **False**
- 3. Expansionary monetary policy can cause inflation in the long run, but expansionary fiscal policy cannot. **False**
- 4. Elected politicians are more reluctant to implement contractionary policies than policymakers at the central bank. **True**
- 5. Expansionary monetary policy will cause a decrease in nominal interest rates and a decrease in employment. **False**
- 6. Fiscal policy is implemented by the central bank. **False**

### Topic 5.2- The Phillips Curve

7. On the graph to the right, draw the short-run and long-run Phillips curve and label points A, B, and C based on the changes in aggregate demand and supply.



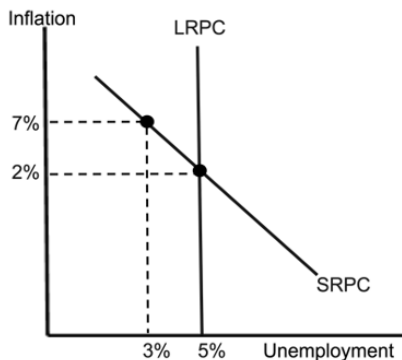
8. On the graph to the right, draw the short-run and long-run Phillips curve and show the effects of a negative supply shock on both graphs.





## ■ Topic 5.2- The Phillips Curve (continued)

9. Draw the short-run and long-run Phillips curve given the values.



Actual inflation rate	7%	Expected inflation rate	2%
Unemployment rate	3%	Natural Rate of Unemployment	5%

## ■ Topic 5.3- Money Growth and Inflation

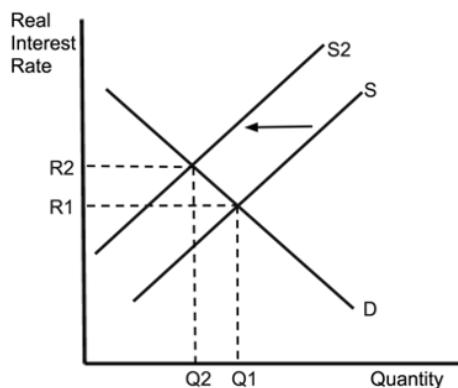
- What is the equation for the quantity theory of money?  
 $M \times V = P \times Y$  The money supply times the velocity of money equals the price level times the real output
- Define the velocity of money. The velocity of money is the average times a dollar is spent and re-spent in a specific period of time
- If the money supply is \$40 and it's used to purchase 10 products with a price of \$20 each. Calculate the velocity of money.  
Velocity = 5.  $\$40 \times v = \$20 \times 10$
- When the economy is at full employment, how will an increase in the money supply affect real output in the long run? Stay the same
- The money supply times the velocity of money equals the nominal GDP.

## ■ Topic 5.4- Deficits and the National Debt

- A budget deficit is when tax revenues are less than government purchases plus transfer payments in a year.
- Explain the difference between the budget deficit and the national debt. A budget deficit is the amount the government overspends in one year. The national debt is the accumulation of deficits over multiple years.

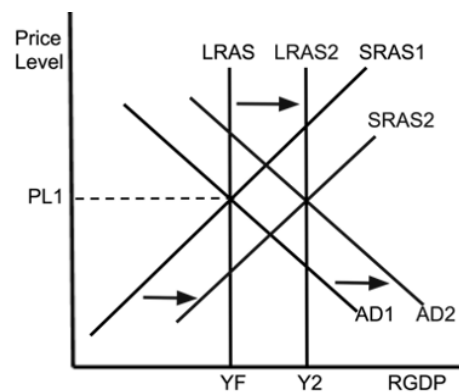
## ■ Topic 5.5- Crowding Out

- Crowding out causes the real interest rate to increase which will decrease economic growth.
- Draw the loanable funds market and show what happens when the government increases deficit spending.



## ■ Topic 5.6- Economic Growth

- Productivity increases from new technology or an increase in physical capital or human capital.
- Use the AD-AS model to show what happens in the long-run when lower interest rates lead to more investment



## ■ Topic 5.7- Public Policy and Economic Growth

- Government spending can lead to economic growth if it focuses on education, which increases human capital, infrastructure spending, or subsidies that promote innovation.
- Supply-side fiscal policies are laws designed to increase output by lowering taxes for businesses.
- If wages and resource prices are flexible, a tax cut for consumers will not increase the real GDP in the long run.