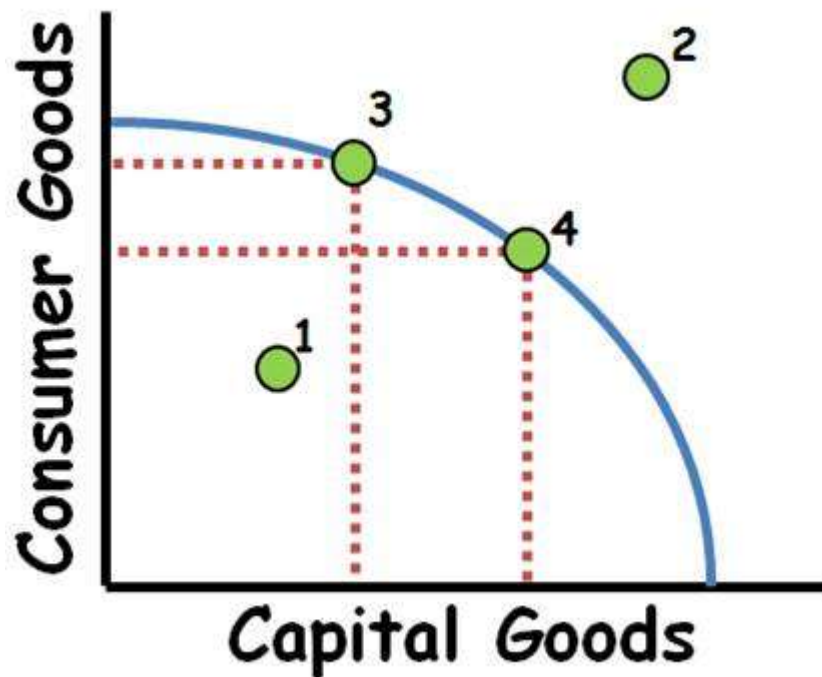


Production Possibilities Frontier/Curve (Also in Micro)

- (1) Inefficient use of resources, but it is possible to produce at this point
- (2) Scarcity prevents this level of production without new resources. (trade may also make this point possible)
- (3) to (4) Increasing opportunity costs if PPC is concave

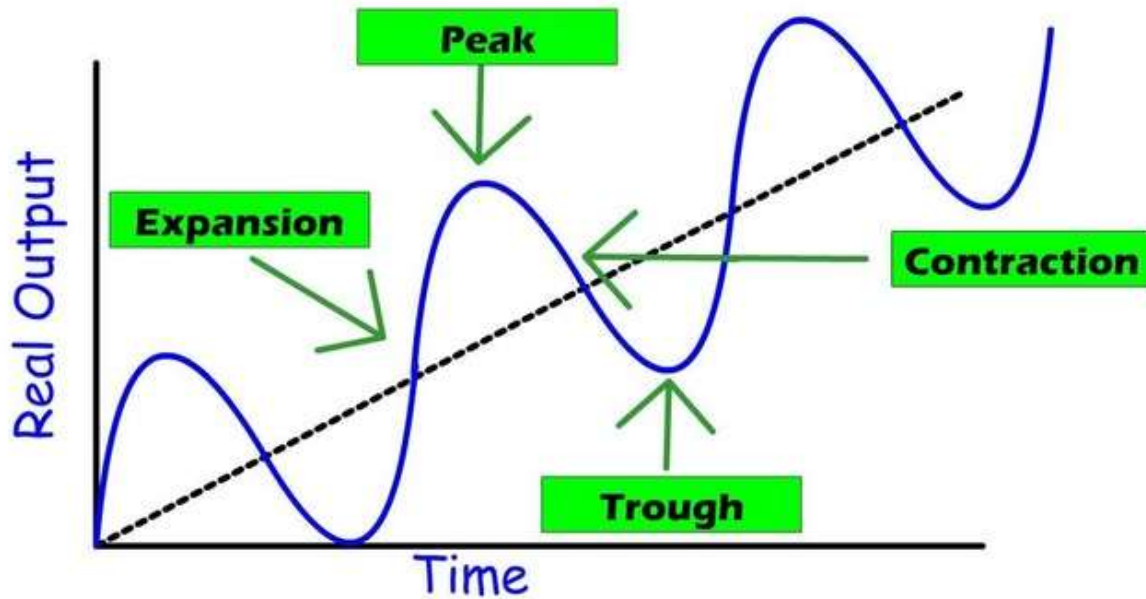
This is due to resources not being equally adaptable to both products
For constant costs the PPC will be a straight line

- Increases in the quality or quantity of resources as well as technological improvements will shift the PPC outward
- Decreases in the quality or quantity of resources will shift the PPC inward



Business Cycle

- Natural fluctuations in economic activity over time
- Expansion is also called recovery
- Peaks coincide with an inflationary gap and may bring high inflation
- Contraction that last more than 6 months are generally referred to as recessions
- Troughs coincide with a recessionary gap and bring high unemployment and possibly deflation



Supply and Demand Shifts (Also in Micro)

Single Shifts

- Demand \uparrow = $P \uparrow$ $Q \uparrow$: Point 1 to 2
- Demand \downarrow = $P \downarrow$ $Q \downarrow$: Point 1 to 8
- Supply \uparrow = $P \downarrow$ $Q \uparrow$: Point 1 to 6
- Supply \downarrow = $P \uparrow$ $Q \downarrow$: Point 1 to 5

Double Shifts

When 1 axis shows an increase then decrease with each shift, that axis is indeterminate

- Demand \downarrow Supply \downarrow

P Indeterminate $Q \downarrow$: Point 1 to 8 to 7.

- Demand \uparrow Supply \uparrow

P Indeterminate $Q \uparrow$: Point 1 to 2 to 4.

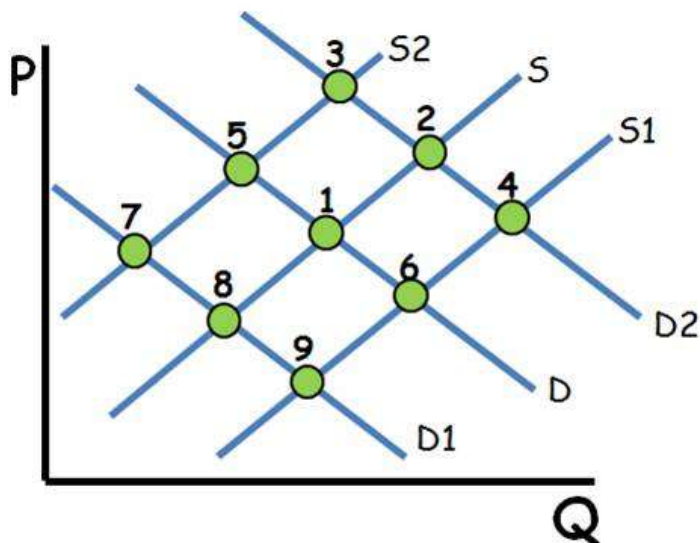
- Demand \uparrow Supply \downarrow

$P \uparrow$ Q Indeterminate: Point 1 to 2 to 3.

- Demand \downarrow Supply \uparrow

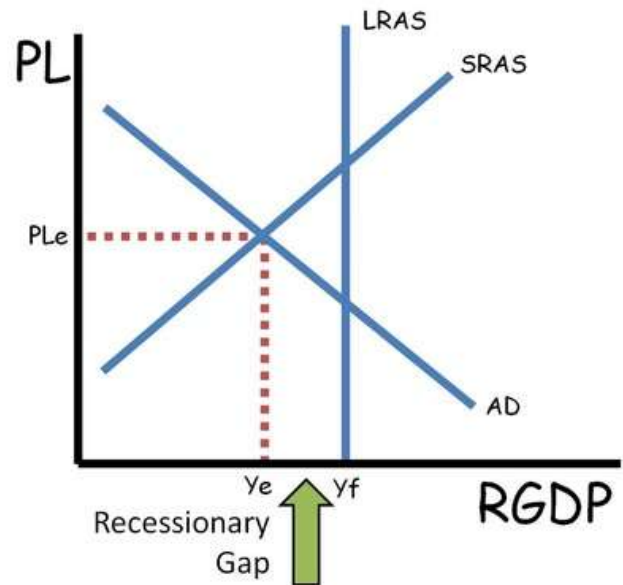
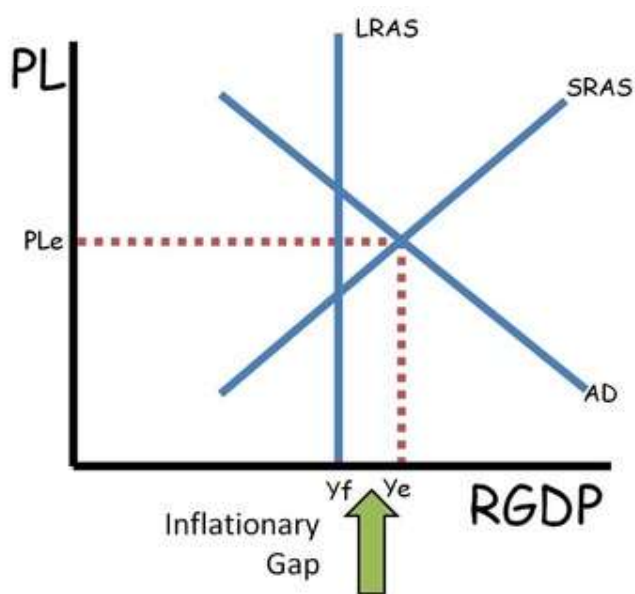
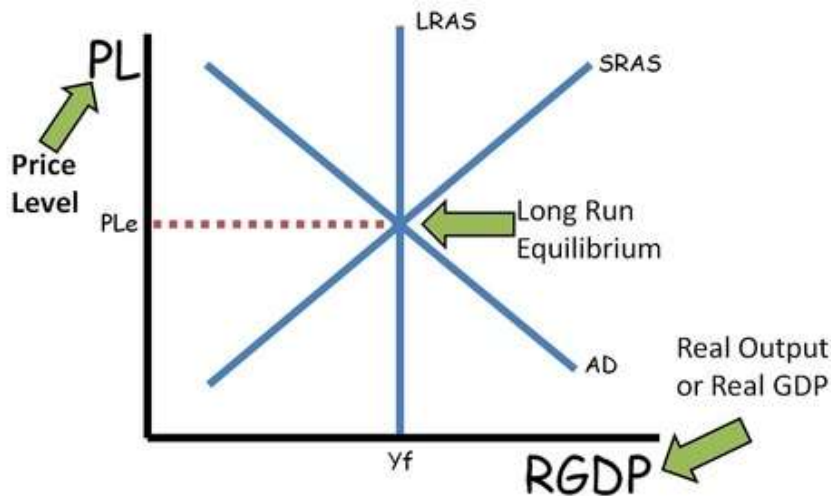
$P \downarrow$ Q Indeterminate: Point 1 to 8 to 9

Supply and Demand Shifts



Aggregate Supply and Aggregate Demand (The [AS/AD Model](#))

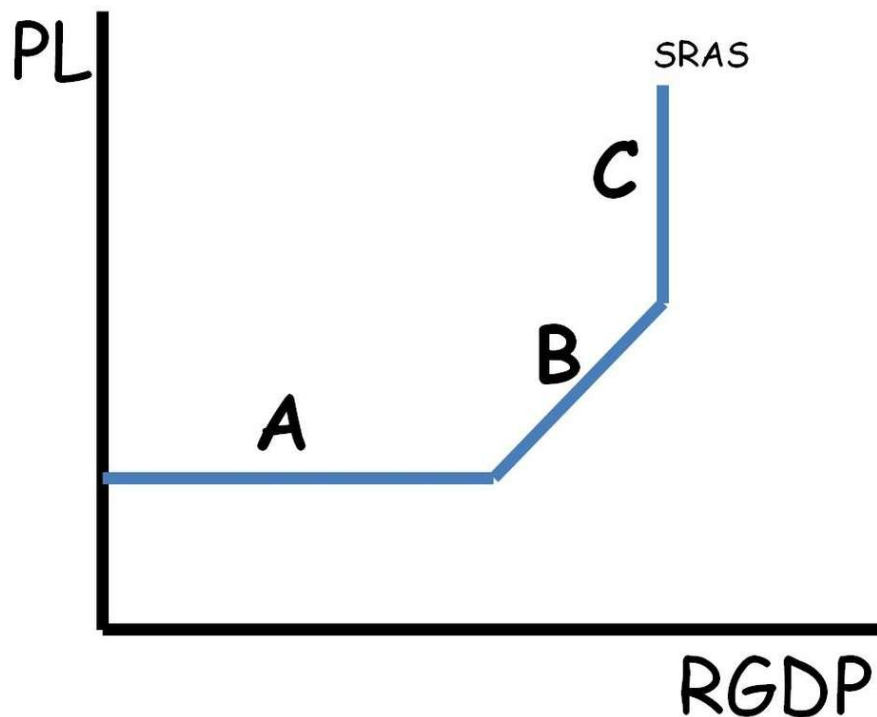
- LRAS is equal to the full employment level of output.
- In the long run the economy will always return to LRAS.
- In the short run the economy can have an inflationary gap (output above LRAS) or a recessionary gap (output below LRAS)
- AD is equal to $GDP = C + I_g + G + X_n$
- The government can use fiscal policy to shift AD right or left.
- The Fed can use Monetary Policy to shift AD right or left.
- AS can shift because of changes in productivity, costs of inputs, or supply shocks.
- The LRAS can shift based on anything that would move the PPC (see micro)
- If the economy is not at long run equilibrium, workers will eventually get lower (Recessionary gap) or higher (Inflationary gap) wages which means a change in input costs causing a shift of the AS towards long-run equilibrium



Parts of the Short-Run Aggregate Supply Curve

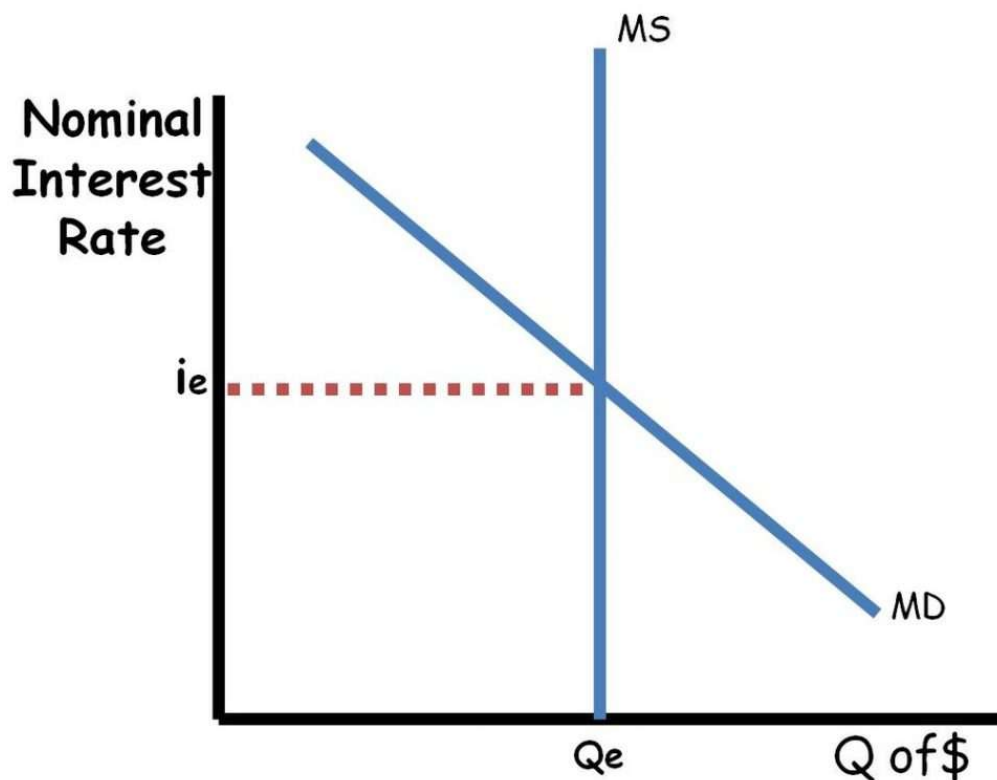
- The SRAS is the same thing as the AS curve
- An economy with an AS curve like A will be able to increase output without increasing the price level
- An economy with an AS curve like B will be able to increase output while increasing the price level
- An economy with an AS curve like C cannot increase output. Only price levels can increase

**Remember the output and price level will be determined by the intersection between this curve and the AD curve (not shown)



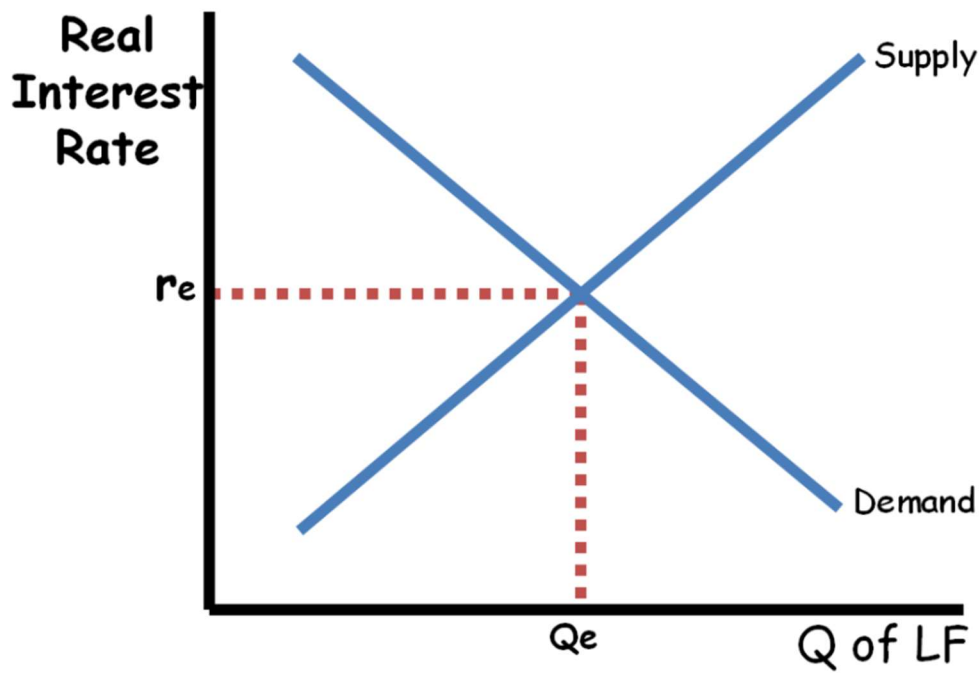
Money Market

- MS is the amount of money in the economy as calculated by M1 or M2
- The Federal Reserve (AKA Central Bank) regulates the money supply through open market operations (buying and selling bonds or securities), discount rate, reserve requirement
- Expansionary monetary policy shifts the MS right
- Contractionary monetary policy shifts the MS left
- The MD can move because of a change in the number of transactions in an economy ($C+I_g+G+X_n$) or a change in the desire to hold cash as an asset



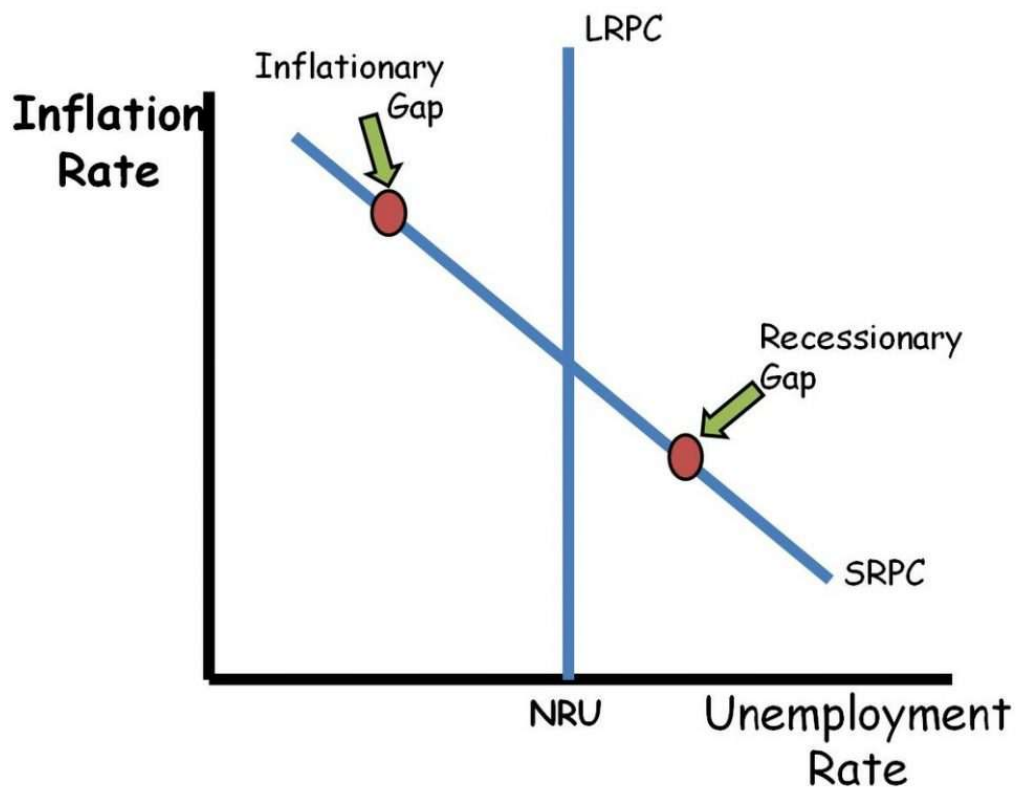
Loanable Funds Market

- The supply for loanable funds is determined by how much money is being saved in the economy
- The demand for loanable funds is determined by the amount of investment businesses would like to make
- If the government increases spending it causes a decrease in the supply of loanable funds (the government has taken them to deficit spending) that creates a higher interest rate
AKA "Crowding out"
(an **increase** in the demand of loanable funds instead of a decrease in supply is also acceptable)
- If the government decreases spending it causes an increase in the supply of loanable funds that creates a lower interest rate
AKA "Crowding in"
(a **decrease** in the demand of loanable funds instead of an increase in supply is also acceptable)
- The interest rate affects the quantity of investment in an economy (part of GDP) so a change in the interest rate will cause a shift in the AD curve
- The foreign exchange markets can also affect loanable funds. i.e. If financial capital flows into a country (capital account) there will be an increase in the supply of loanable funds



Phillips Curve

- The SRPC shows the inverse relationship between the inflation rate and the unemployment rate
- The LRPC lies at the Natural Rate of Unemployment (full employment)
- The intersection between the SRPC and the LRPC is the expected rate of inflation
- When an economy is in long-run equilibrium the inflation rate will be at the intersection between the LRPC and the SRPC
- Changes in AD will cause movement along the SRPC
- Changes in AS will shift the SRPC left or right
- Changes in inflation expectations will cause SRPC to shift left or right



Foreign Exchange Market

- Supply and demand determine the exchange rates for world currencies
- The demand for the currency will shift because of a:
 - Change in the interest rate for this country or other countries
 - Change in the expected future exchange rate
 - Change in anything that would make foreigners want to have more of this country's currency
- The supply for a currency will shift because of a:
 - Change in the interest rate for this country or other countries
 - Change in the expected future exchange rate
 - Change in anything that would make foreigners want to have more of this country's currency

Anytime there is an increase in the demand for a currency, there is simultaneously a decrease in the supply of the same currency

There will be a decrease in the demand for the other currency and an increase in supply of the other currency

***Remember this is foreign supply and demand for these currencies

