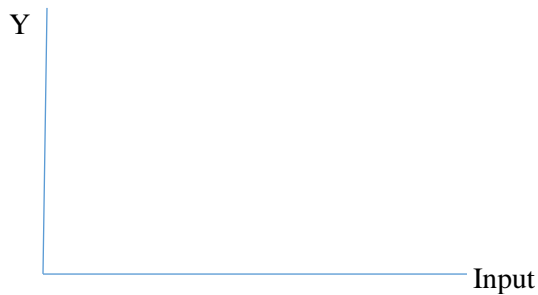


Topic 16 – Long-Run Growth and Short-Run Fluctuations

I. Long Run Economic Growth

$$Y = A \cdot f(L, K, H, N)$$



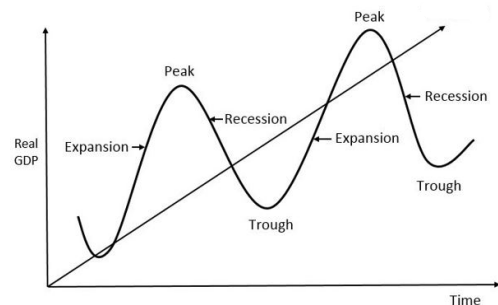
We care about other things...

Video: 200 Countries, 200 Years, 4 Minutes – The Joy of Statistics

II. Short-Run Economic Fluctuations

a. What do we know?

-
-
-



b. Output and Unemployment

Output Gap = _____ - _____

Okuns Law: For every percentage point of cyclical unemployment, we expect a _____ increase in the output gap.

Example: Use the following information about 2011 to calculate the output gap in percentage terms.

Real output = \$15 trillion

Unemployment = 9%

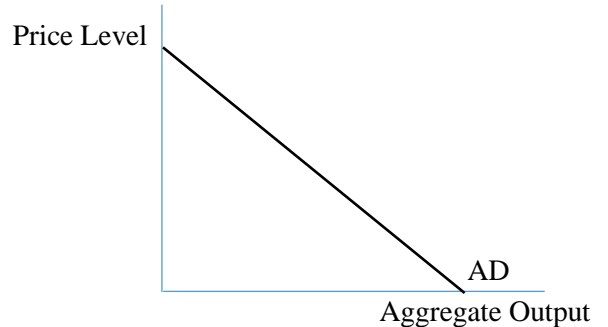
Natural unemployment = 6%

III. Aggregate Supply and Aggregate Demand Model

a. Aggregate Demand (AD)

A curve describing the relationship between the _____ and the quantity of goods and services that people want to purchase.

$$AD = C + I + G + NX$$



i. Why is Aggregate Demand downward sloping?

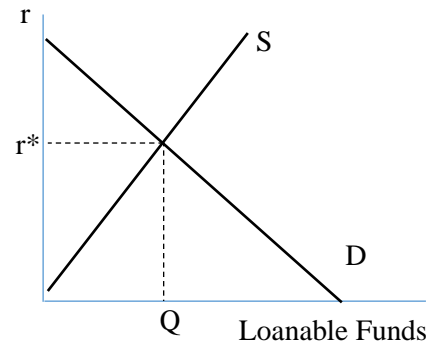
1. The Wealth Effect

As price level _____ the real purchasing power of _____ increases.

This small increase in _____ may lead to an increase in consumer spending in the short-run.

2. The Interest Rate Effect

As price level decreases, the quantity of _____ demanded will also decrease, so people shift some wealth into less liquid assets, increasing _____ in the loanable funds market, decreasing the interest rate and increasing investment in the short-run.



3. The Exchange Rate Effect

Savers seek out the highest rate of return on their investments. As the domestic _____ drops, money will flow out of the country seeking higher rates of return abroad. There will be an increase in _____ of the domestic currency on the foreign exchange market, leading to currency _____. As the currency _____ in value, exports will increase and imports will decrease causing an increase in net exports in the short-run.

ii. What shifts Aggregate Demand?

-
-
-
-

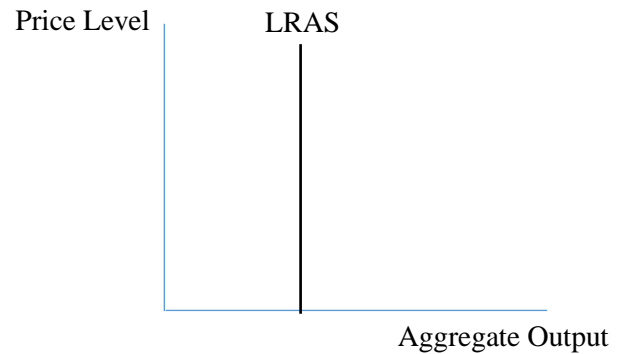
b. Aggregate Supply

A curve describing the relationship between the _____ and the economy's total supply of goods and services.

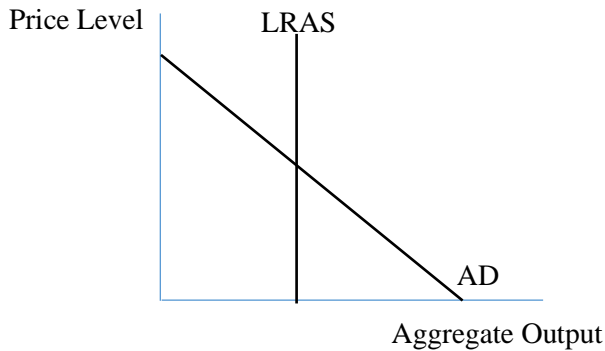
i. Long-Run Aggregate Supply (LRAS)

In the long-run, aggregate supply is _____.

Long-Run Economic Growth



ii. Graphical Representation of Money Neutrality

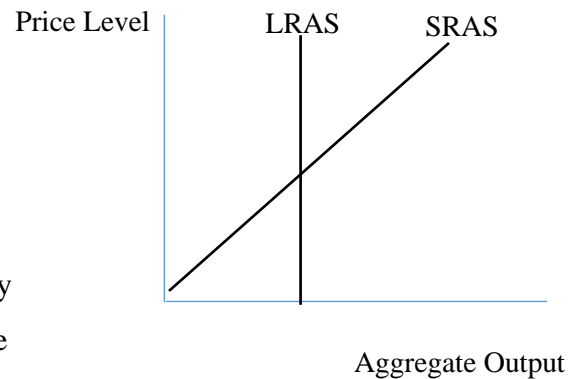


Theory of Money Neutrality
 In the long-run changes in the money supply affect only nominal variables, not real variables.

iii. Short-Run Aggregate Supply (SRAS)

Why would short-run aggregate supply deviate from the economy's long-run potential output?

-
-
-

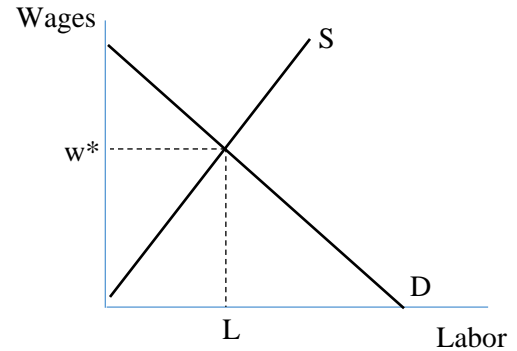


These theories explain why short-run aggregate supply might deviate from long-run potential output when the price level differs from the _____ price level.

Why might SRAS be lower than LRAS when prices are lower than expected?

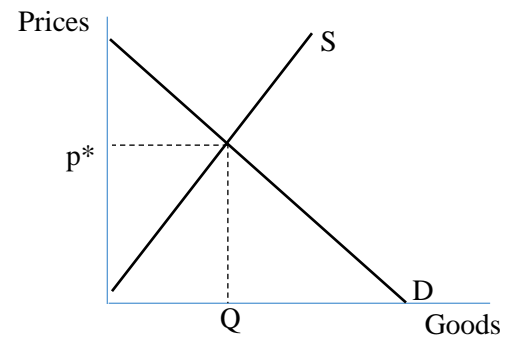
1. Sticky Wage Theory

Wages are _____ in the short-run, while prices and profits fluctuate.



2. Sticky Price Theory

Prices are _____ in the short-run, while wages and profits fluctuate.

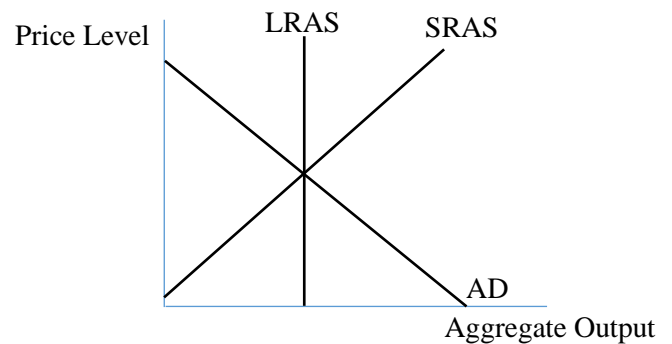


3. Misperceptions Theory

c. Modeling LR Growth and SR Economic Fluctuations using the AD/AS Model

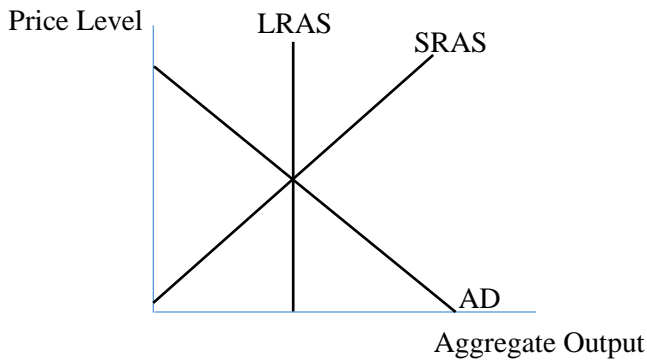
i. Long-Run Economic Growth / Decline

Example: In 2017, hurricane Harvey caused extensive flooding in the Houston area, resulting in estimated damages exceeding \$100 billion.



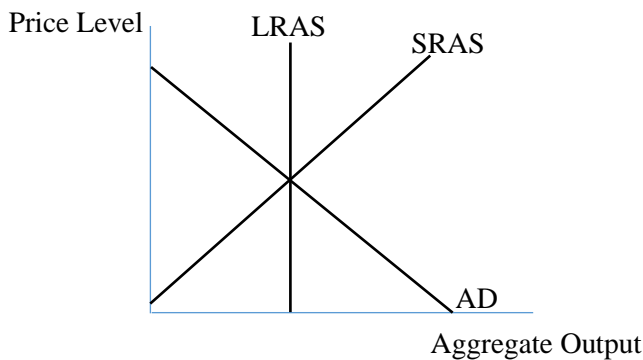
ii. Aggregate Demand Shocks

Example: Suppose a recession in Europe decreases demand for goods produced in the US.



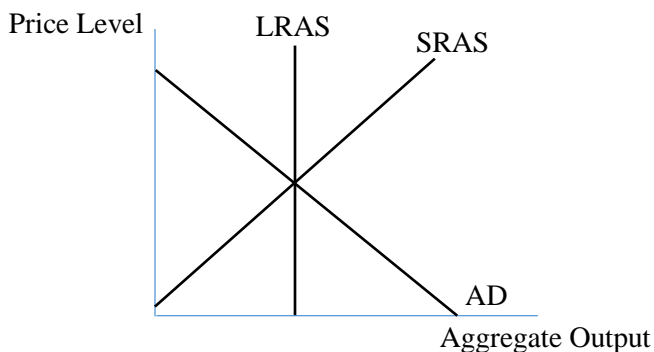
- Steps to Model Short-Run Fluctuations
1. Decide whether an event shifts AD or SRAS, and which direction the curve will shift.
 2. Use the diagram to show the SR impact on price level and output. (SRAS = AD)
 3. Determine how the economy moves back to a long-run equilibrium. (SRAS = LRAS = AD)

Example: Suppose that businesses are feeling optimistic about the economy and increase investment spending.



iii. Short-Run Aggregate Supply Shocks

Example: In the 1970s, the OPEC embargo dramatically increased the price of oil in the US.



IV. Counter-Cyclical Economic Policy

$$AD = C + I + G + NX$$

Goal: Reduce the size of short-term business cycle fluctuations.

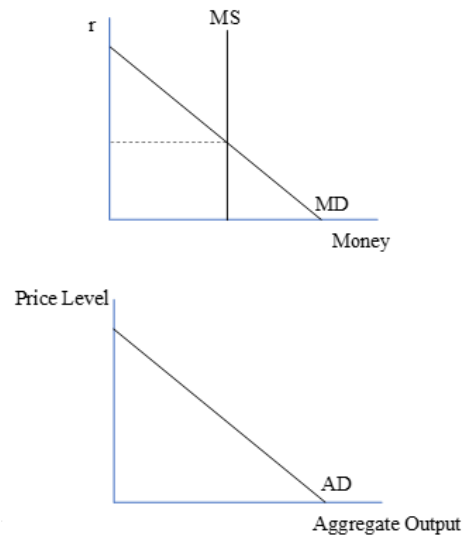
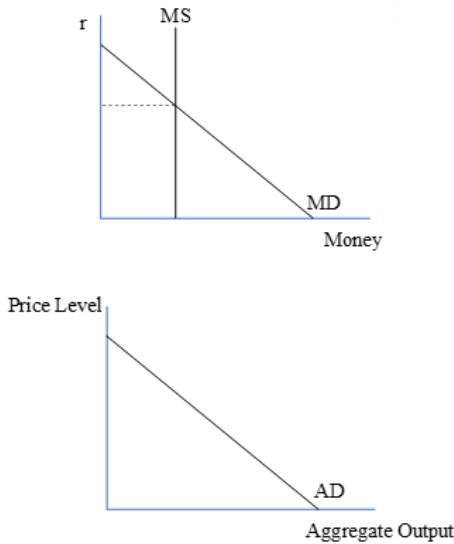
Expansionary Policy: _____ during an economic contraction.

Contractionary Policy: _____ during an economic expansion.

a. Monetary Policy – Control of Money Supply

Expansionary Monetary Policy

Contractionary Monetary Policy



b. Fiscal Policy – Control of the Federal Budget

Watch “*Introduction to Fiscal Policy*”, “*The Limits of fiscal Policy*”, and “*Dangers of Fiscal Policy*”.

i. Expansionary Fiscal Policy

Contractionary Fiscal Policy

What is Crowding Out?

How does spending increase the fiscal multiplier?

ii. How to make Effective is Fiscal Policy?

Ideally Fiscal Policy should be... T_____ T_____ & T_____

Give an example of an automatic stabilizer?

iii. Dangers of Fiscal Policy

Shocks to LRAS?

The government can finance fiscal stimulus by _____ taxes and _____ spending during periods of economic expansion.

V. Assignments

1. Video Assignment and Problem Set 16 due on 5/1/20

The End