The difficulty lies not so much in developing new ideas as in escaping from old ones.

John Maynard Keynes

Test Yourself: Classical and Keynesian Analysis

What did Classical economists believe about employment?

Prior to the 1930's, Classical economists believed *the economy is always tending toward a full employment equilibrium*.

What does Say's Law say?

Say's Law says that supply creates its own demand. Producers produce goods consumers want and consumers have the money to buy because of the wages they are paid.

Under Say's Law, unemployment is possible but it is a short-lived adjustment period in which wages and prices decline or people voluntarily choose not to work.

What changed people's minds about Say's Law?

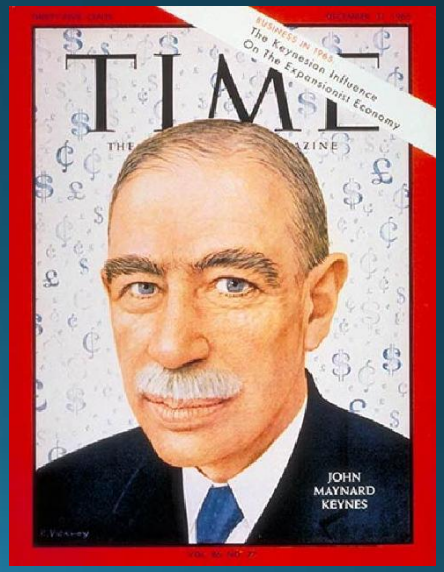
The Great Depression and the advent of Keynesian economics changed people's minds about Say's Law.

Keynes' believe that supply did <u>not</u> create its own demand and that demand can be forever inadequate for an economy to achieve full employment.

Who was John Maynard Keynes?

Keynes was a British economist (1883-1946) who offered an explanation of the Great Depression of the 1930s.

In 1936, he published *The General Theory of Employment, Interest and Money.*



What is the essence of Keynesian Economics?

The essence of Keynesian Economics is that *the economy can tend toward a less than full employment equilibrium*.

What determines demand for goods and services?

Disposable income determines demand for goods and services.

What is the consumption function?

The consumption function is a graph that shows the amount households spend for goods and services at different levels of disposable income.

What is savings?

Savings is money earned but not spent.

What is dissaving?

Dissaving is when the amount of personal spending exceeds the amount of disposable income.

People dissave by taking money from personal savings.

What is autonomous consumption?

Autonomous consumption is the consumption that is independent of the level of disposable income. It is those things you *must* buy (food, housing, etc.) regardless of your level of disposable income.

$$C = \bar{C} + cY^d$$

consumption

autonomous consumption

marginal propensity to consume

disposable income

What happens when disposable income is zero?

When disposable income is zero, *spending will equal autonomous consumption* because households will dissave for basic needs.

What is the marginal propensity to consume?

The marginal propensity to consume is the change in consumption resulting from a change in real disposable income.

$$MPC = \frac{\Delta C}{\Delta Y_d}$$

What happens when real disposable income changes?

There is a *direct relationship* between changes in real disposable income and changes in consumption.

What is the marginal propensity to save?

The marginal propensity to save is the change in saving resulting from a change in real disposable income.

$$MPS = \frac{\Delta S}{\Delta Y_d}$$

Why does MPC plus MPS always equal 1?

MPC plus MPS always equals 1 because *savings is defined as money earned but not spent*.

$$MPC + MPS = 1$$

What happens if factors other than income change?

If factors other than income change, there is a *shift in the consumption schedule*.

Why does consumption shift?

Consumption shifts because of a change in:

- Expectations - Consumers' expectations of things that will happen in the future will affect their spending decisions today.
- Wealth - There is a direct relationship between a change in wealth and a change in consumption.
- Price levels - There is an indirect relationship between a change in prices and a change in consumption.

Consumption shifts because of a change in:

- Interest rates - There is an indirect relationship between a change in interest rates and a change in consumption.
- Stock of durable goods - When durable goods are suppressed, as happened during WWII, there is an increase afterwards in the demand for goods not previously made available.

Review

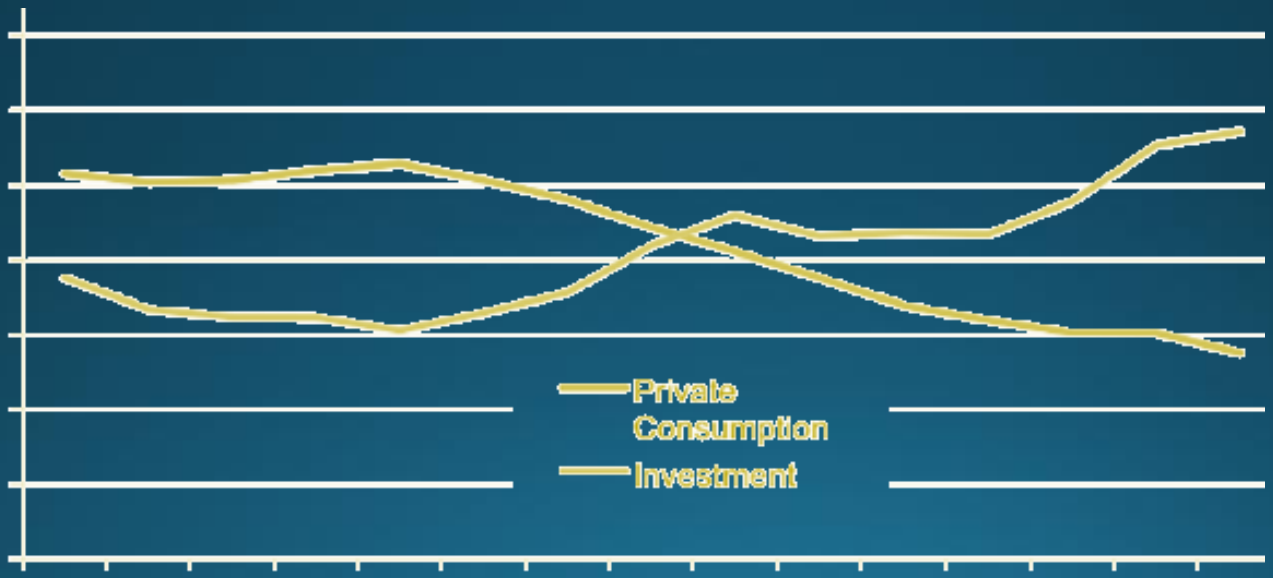
The marginal propensity to consume is the change in consumption spending resulting from a given change in income.

The marginal propensity to save is the fraction of any change in real disposable income that households save.

$$MPC + MPS = 1$$

How does consumption compare with investment?

Consumption is more *stable* than investment.



According to Classical economists, what determines the level of investment?

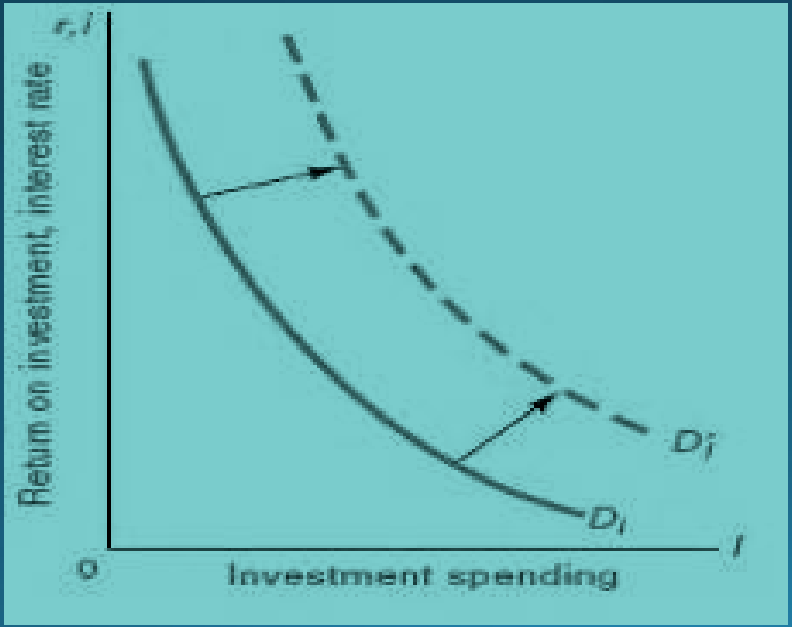
According to Classical economists, the *interest rate* determines the level of investment.

According to Keynes, what determines the level of investment?

According to Keynes, *expectations of future profits* is the primary factor, along with the level of interest rates.

What is the investment demand curve?

The investment demand curve is the curve that shows the amount businesses invest at different possible rates of interest.



Why is investment demand unstable?

Investment demand is unstable because of:

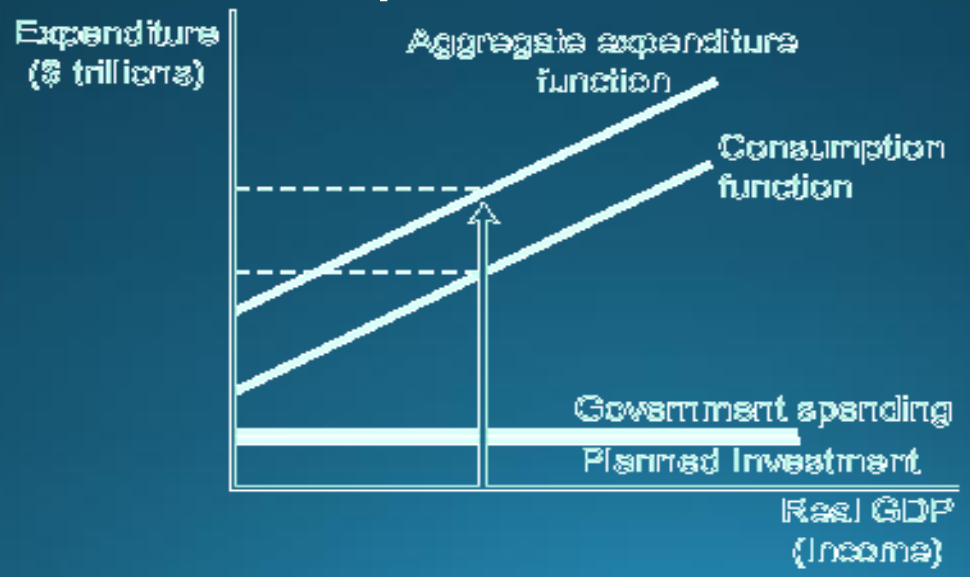
- Expectations - Investors are susceptible to moods of optimism and pessimism.
- Technological change - New products and new ways of doing things have a big impact on investment decisions.
- Business taxes - Business decisions depend on the expected *after-tax* rate of profit.

Investment demand is unstable because of:

- Capacity utilization - When capacity utilization is low firms can meet an increase in demand without expanding. When capacity utilization is high firms must increase investment to meet an increase in demand.
- Autonomous reasons - Autonomous expenditures - spending that does not vary with the current level of disposable income - can affect investment.

What is the aggregate expenditure function?

The aggregate expenditure function is the function that represents total spending in an economy at a given level of real disposable income.



Why is government spending an autonomous expenditure?

Government spending is an autonomous expenditure because it *can be the result of political decisions regardless of national output*.

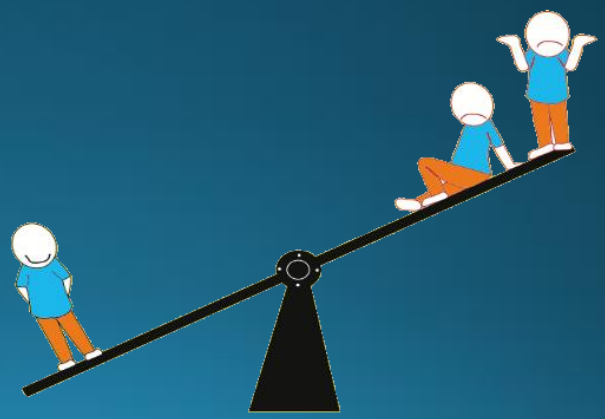
Why is net exports assumed to be negative?

Net exports is assumed to be negative because *spending for imports usually exceeds the value of exports*.

What does the term equilibrium mean?

Equilibrium is the point toward which the economy tends.

In the Keynesian model, the equilibrium level of GDP is where *the value of goods and services produced is equal to the spending for these goods and services*.



What does aggregate expenditures mean?

Aggregate expenditures = C + I + G + (X-M)

Aggregate expenditures affect the economy by pulling aggregate output either higher or lower toward equilibrium.

What causes a decrease in real GDP and employment?

Excessive inventories cause a decrease in real GDP and employment because, when there are excessive inventories, firms will cut back production and lay off workers in order not to add to inventories excessively.

What causes an increase in real GDP and employment?

Inventory depletion causes an increase in real GDP and employment because, when inventories decline too much, firms will increase production and hire more workers to meet the demand for their product.

What is the aggregate expenditures-output model?

The aggregate expenditures-output model determines the equilibrium level of real GDP by the *intersection of aggregate expenditures and aggregate output*.

How can full employment be reached?

To reach full employment, the *aggregate expenditure curve must be shifted upward* until full-capacity output is reached.

What is the Keynesian multiplier?

According to the Keynesian multiplier, any initial increase in spending will lead to a multiple increase in GDP.

Any initial change in spending causes a chain reaction of more spending.

The formula for the multiplier is:

$$1 \div (1 - MPC)$$

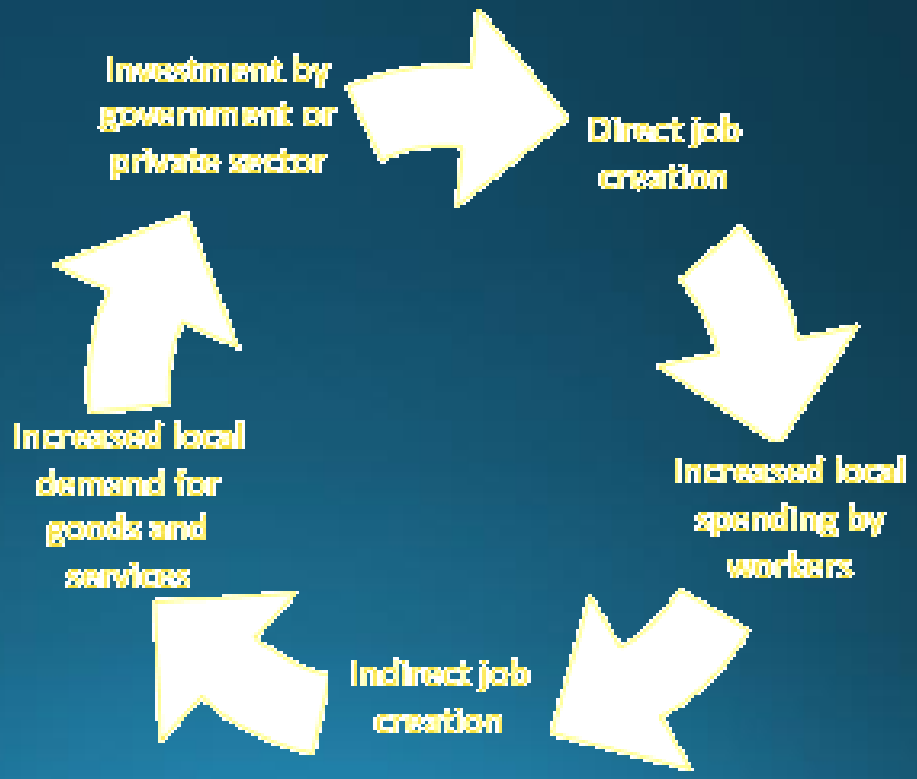
or

$$1 \div MPS$$

If the MPS is ½, what is the multiplier?

If the MPS is ½, the multiplier is:

$$1 \div MPS = 1 \div \tfrac{1}{2} = 2$$

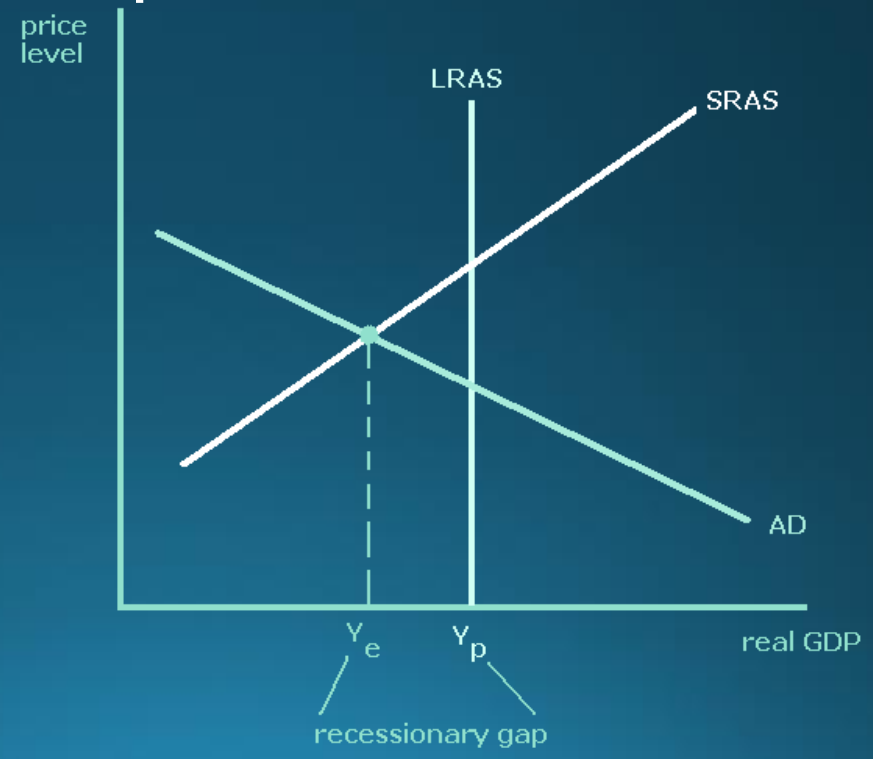


What is the GDP gap?

The GDP gap is the difference between *full-employment* real GDP and *actual* real GDP.

What is the recessionary gap?

The recessionary gap is the amount by which aggregate expenditures fall short of the amount required to achieve full employment equilibrium.



What is the Keynesian remedy for a recessionary gap?

The Keynesian remedy for a recessionary gap is to *increase autonomous spending by the amount of the recessionary gap*.

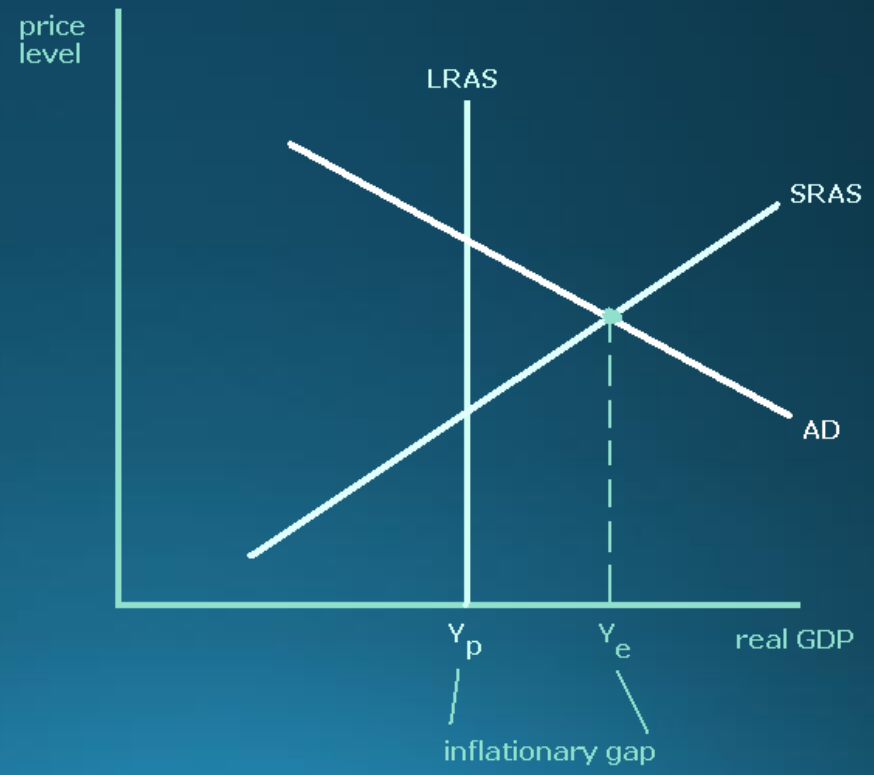
What can the government do to close a recessionary gap?

To close a recessionary gap, the government can:

- increase government spending
- lower taxes
- raise transfer payments

What is an inflationary gap?

An inflationary gap is the amount by which aggregate expenditures exceed the amount required to achieve full employment equilibrium.



What is the Keynesian remedy for an inflationary gap?

The Keynesian remedy for an inflationary gap is to reduce spending by the amount of the inflationary gap.

How can the government close an inflationary gap?

The government can close an inflationary gap by:

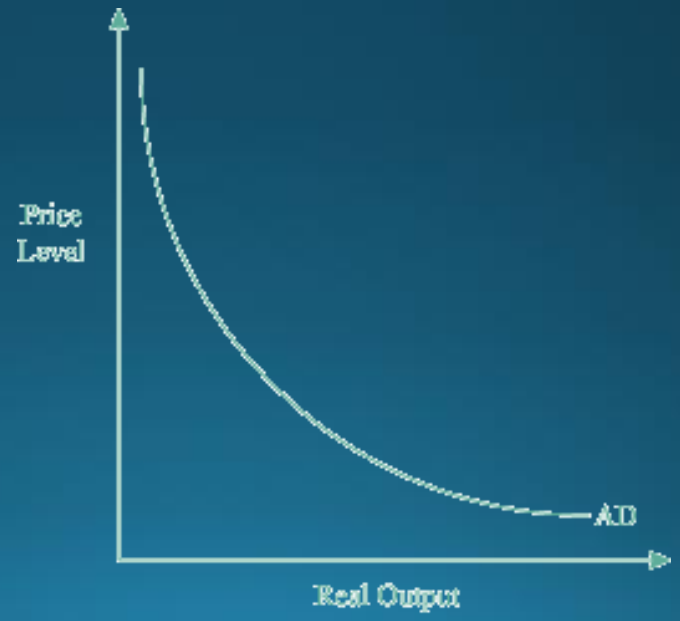
- cutting government spending
- increasing taxes
- reducing transfer payments

What is the difference between market and aggregate models?

The market model measures physical units (3 cans) whereas the aggregate model measures value (3 cans x 88¢ = $2.64).

What is the aggregate demand curve?

The aggregate demand curve shows the level of real GDP purchased by everyone at different price levels during a specific time period, *ceteris paribus*.



What does the horizontal axis of the aggregate demand curve measure?

The *horizontal axis* of the aggregate demand curve shows the value of final goods and services included in real GDP, measured in base year dollars.

What does the vertical axis of the aggregate demand curve measure?

The *vertical axis* of the aggregate demand curve is an index of the overall price level, such as the GDP deflator or the CPI.

Why does the aggregate demand curve slope downward to the right?

The aggregate demand curve slopes downward to the right because of the:

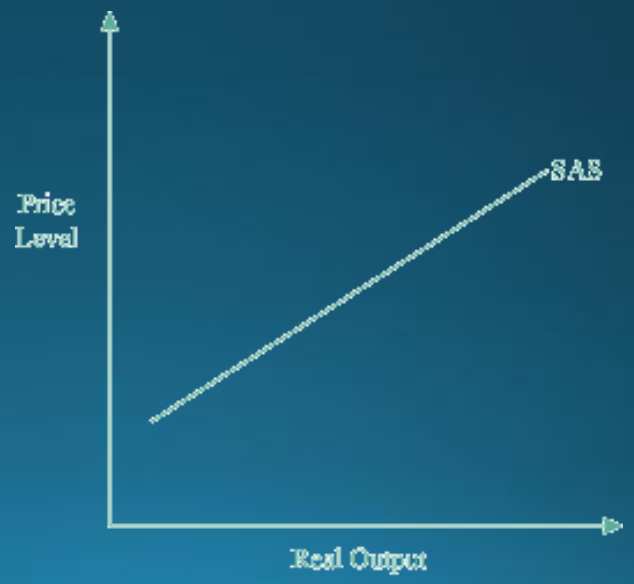
- Real balance wealth effect - Consumers spend more on goods and services because lower prices make their dollars more valuable.
- Interest rate effect - Assuming fixed credit, an increase in the price level translates through higher interest rates into a lower real GDP.
- Net exports effect - A higher domestic price level makes US goods more expensive compared to foreign goods, exports decrease, imports increase, decreasing real GDP.

What can cause a shift in the aggregate demand curve?

Consumption, investments, government spending and net exports can cause a shift in the aggregate demand curve.

What is the aggregate supply curve?

The aggregate supply curve shows the level of real GDP produced at different price levels during a specific time period, *ceteris paribus*.



Why did Keynes assume fixed product prices and fixed wages?

Keynes assume fixed product prices and fixed wages because during a deep recession or depression, there are many idle resources in the economy.

Producers are willing to sell additional output at current prices because there are plenty of resources to go around for everyone who wants them … idle resources mean fixed prices .

Unemployed workers willing to work for the prevailing wage diminishes the power of workers to increase their wages … fixed wages.

What kind of supply curve would explain fixed prices and fixed wages?

A *horizontal* supply curve would explain fixed prices and fixed wages. (Remember … same output, same prices.)

According to Keynes, what will a shift in aggregate demand do?

According to Keynes, a shift in aggregate demand will *restore a depressed economy to full employment*.

What is the Classical view of the aggregate supply curve?

The Classical view of the aggregate supply curve is that it is a vertical line at full-employment output.

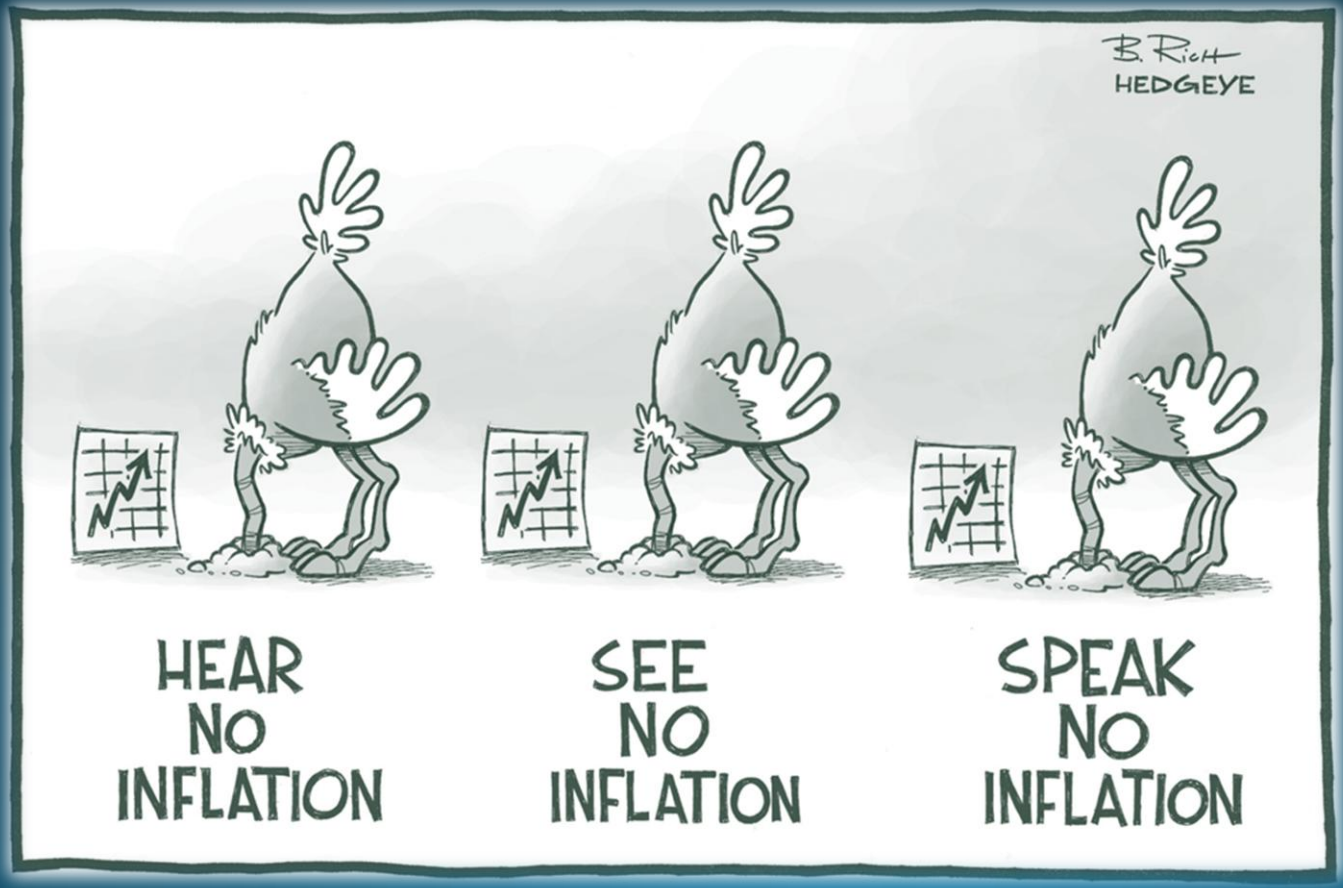
According to Classical economists, where does the economy normally operate?

According to Classical economists, the economy normally operates at *its full-employment level*.

How do Classical economists view prices and costs?

According to Classical economists, the price level of products and production costs *change by the same percentage in order to maintain full employment*.

What are the two types of inflation?



The two types of inflation are:

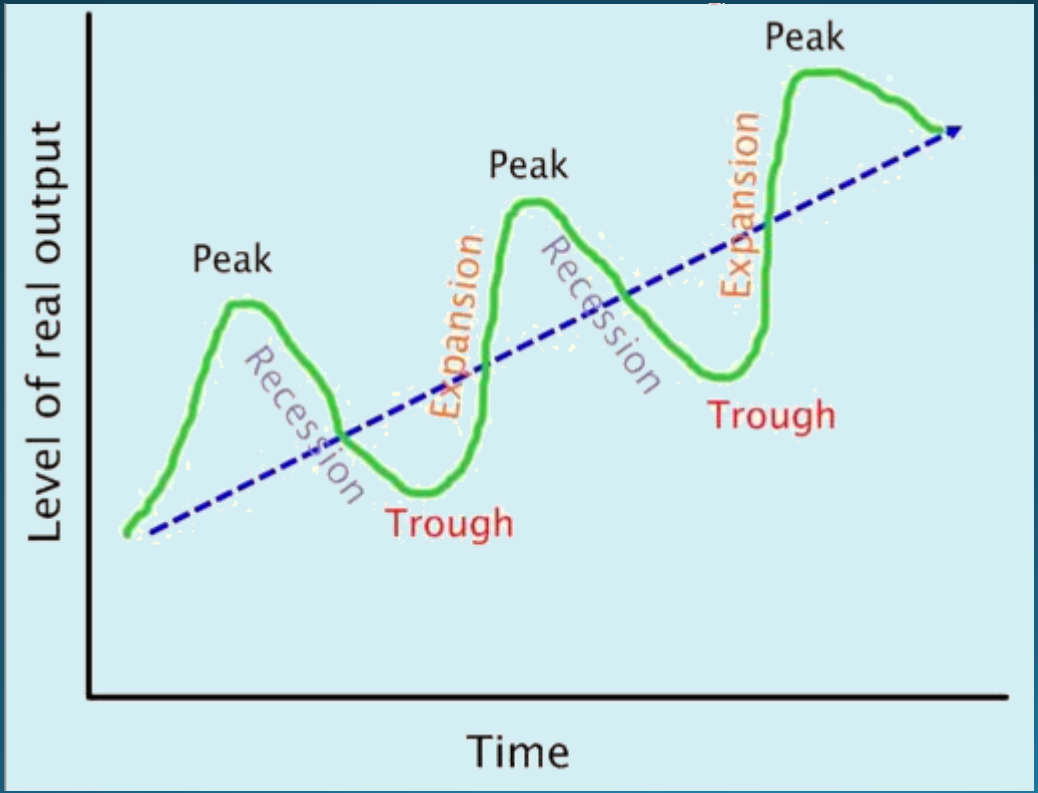
- Cost-push – a rise in the general price level resulting from an increase in the cost of production
- Demand-pull – a rise in the general price level resulting from an excess of total spending

What is stagflation?

High unemployment and rapid inflation existing simultaneously are known as stagflation

What determines the business cycle?

The business cycle is determined by shifts in the aggregate demand and aggregate supply curves.



What happens when both curves increase?

When both the aggregate demand curve and the aggregate supply curve increase, what happens depends on how *much* each increases.

How did you do?! If you didn't do as well as you'd like, review the margin notes and presentations and test yourself again.

The End