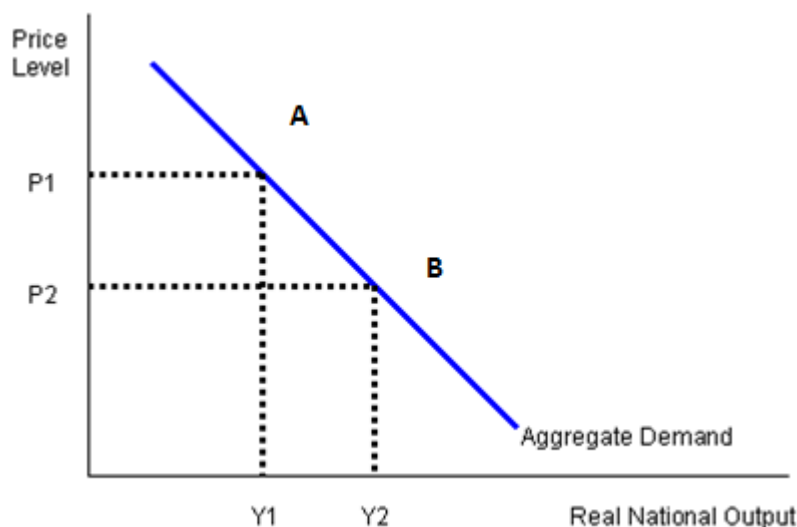


Measurement Of Macroeconomic Variables

Macroeconomics is the field of economics that studies the behaviour of the aggregate economy. Macroeconomics examines economy-wide phenomena such as changes in unemployment, national income, rate of growth, gross domestic product, inflation and price levels.

Aggregate demand

In macroeconomics **aggregate demand (AD)** is the total demand for final goods and services in the economy at a given time and price level. It specifies the amounts of goods and services that will be purchased at all possible price levels.



AD curve shows all such combinations of price levels and national income that yield equilibrium in goods and assets markets. AD curve is negatively sloped and shows an inverse relationship between general price level and desired purchases of nation's buyers.

Aggregate demand includes; consumers' expenditures (C), firms' expenditures i.e. investment (I), government expenditures (G) and net foreign expenditures (X-M).

$$AD = C + I + G + (X - M)$$

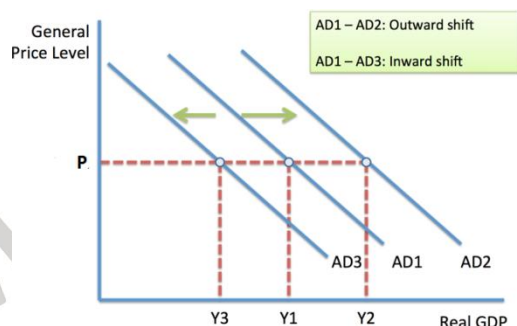
General Price level includes prices of commodities which influence consumption expenditures, rate of interest which have the cost or price of capital and exchange rate which determines prices of imports and exports in other currencies.

If there is any change occur in general price level there is a movement along the AD curve. For example, if there is a fall in prices of goods and services, consumers' expenditures will rise or if there is a fall in interest rate, firms' expenditures increases and if exchange rate falls, there is a possibility of increase in exports and decrease in imports which result to increase in net foreign expenditures. Due to all above mentioned changes there is a movement along the AD curve downwards **A to B** (extension), and if general price level rises there is a movement along the AD curve upwards **B to A** (contraction). The change in government expenditures depend on the government policies.

However, due to change in non price factors, there is a complete shift in AD curve and AD changes at each and every price. Non price factors of consumption may be income, distribution of income, direct taxes, wealth, future expectations, supply of money etc.

Non price (interest rate) factors for investment may be government policies, future expectations, technological advances, economic conditions etc.

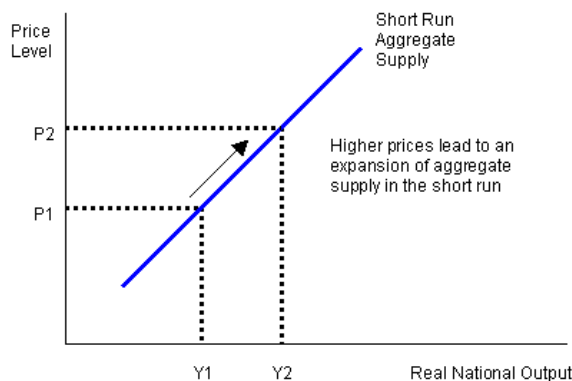
Non price (exchange rate) factors for net exports is the change in domestic incomes or foreign incomes, quality of imported or exported goods, government policies for trade protections etc.



Aggregate supply In economics, **aggregate supply (AS)** is the total supply of goods and services those firms in a national economy plan on selling during a specific time period. It is the total amount of goods and services that firms are willing to sell at a given price level in an economy.

Short-run Aggregate supply curve

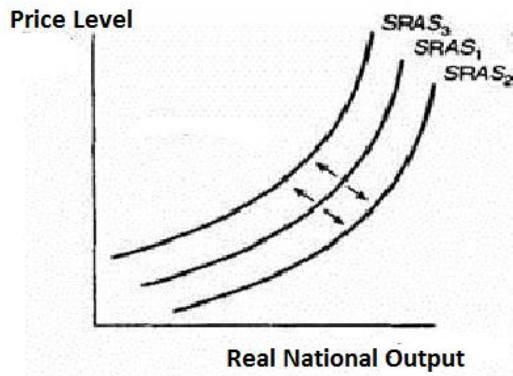
In the short-run, the aggregate supply curve is upward sloping. There are two main reasons why the quantity supplied increases as the price rises:



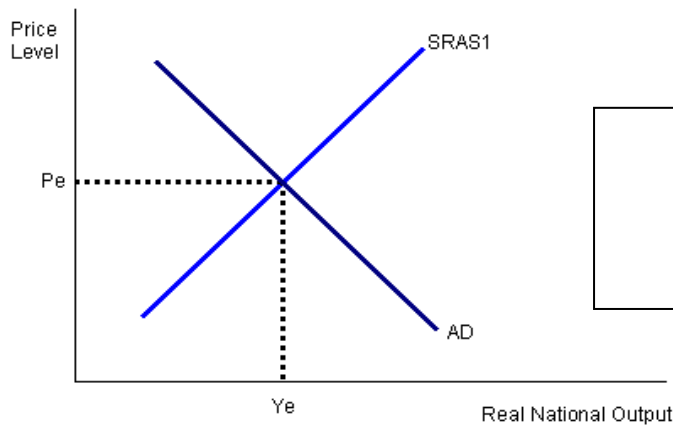
1. The AS curve is drawn using a nominal variable, such as the nominal wage rate. In the short-run, the nominal wage rate is fixed. As a result, an increasing price indicates higher profits that justify the expansion of output.

2. An alternate model explains that the AS curve increases because some nominal input prices are fixed in the short-run and as output rises, more production processes encounter bottlenecks. At low levels of demand, large numbers of production processes do not make full use of their fixed capital equipment. As a result, production can be increased without much diminishing return. The average price level does not have to rise much in order to justify increased production. In this case, the AS curve is flat.

In the short run supply curve will shift if there is any change occurs in input prices, either these are domestic resources prices or are prices of imported resources. Secondly, if there is change in productivity, AS curve will be shifted. In case of an increase AS curve shifts rightwards and if there is a fall in productivity, it will be shifted leftwards. Thirdly, legal-institutional changes can shift AS curve, for instance, if government introduces taxes or regulate firms production, there is a possibility of leftward shift in AS curve. On the other hand if government reduces taxes or introduces subsidies or deregulate private sector or if make competition polices, AS curve shifts rightwards.



In the short run, an economy is at its equilibrium at that point where aggregate demand (AD) intersects short run aggregate supply curve. At equilibrium point 'Pe' is the general price level for 'Ye' real national output.



$AD \uparrow = P \uparrow = Y \uparrow$
$AD \downarrow = P \downarrow = Y \downarrow$
$AS \uparrow = P \downarrow = Y \uparrow$
$AS \downarrow = P \uparrow = Y \downarrow$

Long-run Aggregate supply curve: In the long run all input resources are operating at their full potential therefore aggregate supply curve is perfectly inelastic (vertical) in the long run Fig (a). Any change in aggregate demand brings changes in price only Fig (b).

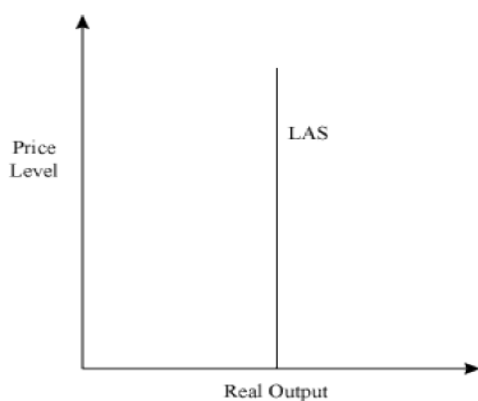


Fig (a)

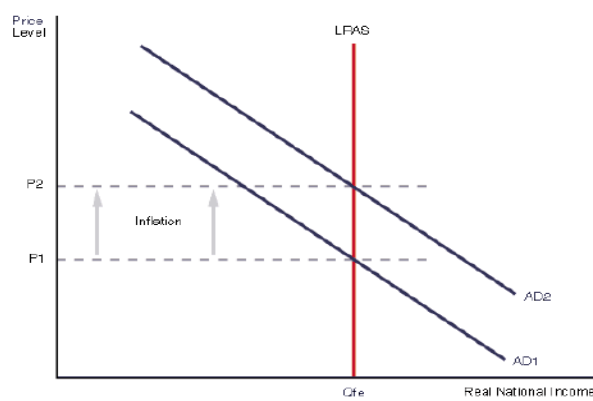
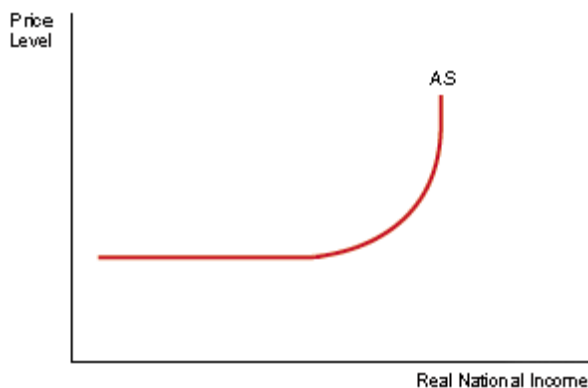


Fig (b)

In Keynesian model aggregate supply curve is of unique shape, Keynes believed that the long-run aggregate supply curve (LRAS) has three main segments through which a market will go through over a period of time. Keynes believed that at the beginning, the market will start out with an increased level of output with no increase in prices since there is lots of spare capacity in the economy it is perfectly elastic.



Once the market moves through the early parts of the LRAS, the spare capacity will then be used up and output will go up at the same time. As a consequence, the costs of the factors of production will rise. After the middle section in the LRAS, employment will be full since output cannot be increased since all the factors of production are being utilized. At the last stage it is perfectly inelastic i.e. vertical supply curve.

Keynes vs. Monetarist vs. Classical Economist

In a broad sense, **Keynesian economics** is the foundation of modern macroeconomics. In a narrower sense, *Keynesian* refers to economists who advocate active government intervention in the economy. Keynes school usually emphasizes more on unemployment than any other macroeconomics objective.

The main message of **monetarists** is that money matters. According to them inflation is the major economic problem which occurs due to increase in supply of money. Milton Friedman has been the leading spokesman for monetarism over the last few decades. Monetarists advocate a policy of steady and slow money growth, at a rate equal to the average growth of real output.

Classical economists believe that the real problem was that high rates of taxation and heavy regulation had reduced the incentive to work, to save, and to invest. What is needed is not a demand stimulus but better incentives to stimulate *supply*. They believe that 'supply creates its own demand', therefore, all markets are at equilibrium and if all markets are at equilibrium then the economy will be at its equilibrium.

There is another group of which called as **New Classical Economists** (not neo-), which reject Keynesianism and return to classical market root with limited intervention of the state. They say that in the long run economy operates at its full capacity; therefore, long run supply curve is perfectly inelastic.