Unit 3rd: Inflation and unemployment

Q: What is inflation?

Ans: Inflation is an economic term that is used to describe the general increase in the prices of commodity and services in an economy over a certain period of time. It is described as an index because the current prices of commodities are compared to a standard price level. The effect of general increase in price of commodity is the loss of the money purchasing power. Inflation is used to measures the purchasing power of a unit of currency. Inflation can be measured by a lot of index the main measure of prices is the price index. Price index is also referred by some economists as the consumer's price index. It considers the most common goods and services in the economy like the prices of foodstuffs, housing prices and the cost of medical care in an economy.

1. Creeping Inflation: When the rise in prices is very slow like that of a snail or creeper, it is called creeping inflation. In terms of speed, a sustained rise in prices of annual increase of less than 3 per cent per annum is characterised as creeping inflation. Such an increase in prices is regarded safe and essential for economic growth.

2. Walking or Trotting Inflation: When prices rise moderately and the annual inflation rate is a single digit. In other words, the rate of rise in prices is in the intermediate range of 3 to 6 per cent per annum or less than 10 per cent. Inflation at this rate is a warning signal for the government to control it before it turns into running inflation.

3. Running Inflation: When prices rise rapidly like the running of a horse at a rate or speed of 10 to 20 per cent per annum, it is called running inflation. Such an inflation affects the poor and middle classes adversely. Its control requires strong monetary and fiscal measures, otherwise it leads to hyperinflation.

4. Hyperinflation: When prices rise very fast at double or triple digit rates from more than 20 to 100 per cent per annum or more, it is usually called runaway ox galloping inflation. It is also characterised as hyperinflation by certain economists. In reality, hyperinflation is a situation when the rate of inflation becomes immeasurable and absolutely uncontrollable. Prices rise many times every day. Such a situation brings a total collapse of monetary system because of the continuous fall in the purchasing power of money. The speed with which prices tend to rise is illustrated in Figure 1. The curve C shows creeping inflation when within a period of ten years the price level has been shown to have risen by about 30 per cent. The curve W depicts walking inflation when the price level rises by more than 50 per cent during ten years. The curve R illustrates running inflation showing a rise of about 100 per cent in ten years. The steep curve H shows the path of hyperinflation when prices rise by more than 120 per cent in less than one year.

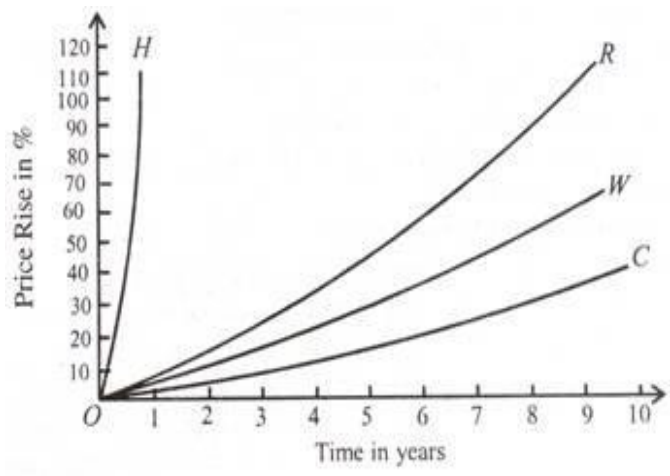


Fig. 1.

5. Semi-Inflation: According to Keynes, so long as there are unemployed resources, the general price level will not rise as output increases. But a large increase in aggregate expenditure will face shortages of supplies of some factors which may not be substitutable. This may lead to increase in costs, and prices start rising. This is known as semi-inflation or bottleneck inflation because of the bottlenecks in supplies of some factors.

6.True Inflation: According to Keynes, when the economy reaches the level of full employment, any increase in aggregate expenditure will raise the price level in the same proportion. This is because it is not possible to increase the supply of factors of production and hence of output after the level of full employment. This is called true inflation. The Keynesian semi-inflation and true inflation situations are illustrated in Figure.2.

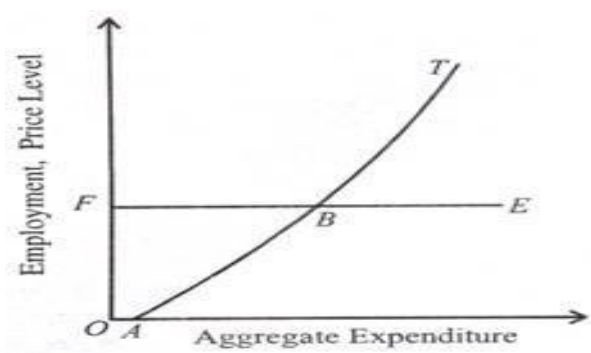


Fig. 2

Employment and price level are taken on vertical axis and aggregate expenditure on horizontal axis. FE is the full employment curve. When with the increase in aggregate expenditure, the price level rises slowly from A to the full employment level B, this is semi-inflation. But when the aggregate expenditure increases beyond point B the price level rises from B to T in proportion to the increase in aggregate expenditure. This is true inflation.

7. Open Inflation: Inflation is open when "markets for goods or factors of production are allowed to function freely, setting prices of goods and factors without normal interference by the authorities. Thus open inflation is the result of the uninterrupted operation of the market mechanism. There are no checks or controls on the distribution of commodities by the government. Increase in demand and shortage of supplies persist which tend to lead to open inflation. Unchecked open inflation ultimately leads to hyperinflation.

8. Suppressed Inflation: Men the government imposes physical and monetary controls to check open inflation, it is known as repressed or suppressed inflation. The market mechanism is not allowed to function normally by the use of licensing, price controls and rationing in order to suppress extensive rise in prices. So long as such controls exist, the present demand is postponed and there is diversion of demand from controlled to uncontrolled commodities. But as soon as these controls are removed, there is open inflation. Moreover, suppressed inflation adversely affects the economy. When the distribution of commodities is controlled, the prices of uncontrolled commodities rise very high. Suppressed inflation reduces the incentive to work because people do not get the commodities which they want to have. Controlled distribution of goods also leads to mal-allocation of resources. This results in the diversion of productive resources from essential to non-essential industries. Lastly, suppressed inflation leads to black marketing, corruption, hoarding and profiteering.

9. Mark-up Inflation: The concept of mark-up inflation is closely related to the price-push problem. Modem labour organisations possess substantial monopoly power. They, therefore, set prices and wages on the basis of mark-up over costs and relative incomes. Firms possessing monopoly power have control over the prices charged by them. So they have administered prices which increase their profit margin. This sets off an inflationary rise in prices. Similarly, when strong trade unions are successful in raising the wages of workers, this contributes to inflation.

10. Ratchet Inflation: A ratchet is a toothed wheel provided with a catch that prevents the ratchet wheel from moving backward. The same is the case under ratchet inflation when despite downward pressures in the economy, prices do not fall. In an economy having price, wage and cost inflations, aggregate demand falls below full employment level due to the deficiency of demand in some sectors of the economy. But wage, cost and price structures are inflexible downward because large business firms and labour organisations possess monopoly power. Consequently, the fall in demand may not lower prices significantly. In such a situation, prices will have an upward ratchet effect, and this is known as "ratchet inflation."

12. Sectoral Inflation: Sectoral inflation arises initially out of excess demand in particular industries. But it leads to a general price rise because prices do not fall in the deficient demand sectors.

13. Reflation: Is a situation when prices are raised deliberately in order to encourage economic activity. When there is depression and prices fall abnormally low, the monetary authority adopts measures to put more money in circulation so that prices rise. This is called reflation.

Q. Explain Effects Or Consequences of Inflation?

Ans: Inflation is not so bad as it creates additional employment of factors of production, but becomes harmful so the moment it goes out of control and robs. Let us see what the effects of inflation on main economic activities are.

I. Effects on Production. At the first glance it appears that increasing prices favour production because in a free enterprise economy, production depends on profits which increase during the period of rising prices. The growing profits provide a great stimulus to the producers to undertake large scale investment. Mushroom growth of production units comes into being. Demand for factors will increase leading to rise in income and further rise in demand. This will reinforce inflationary pressure as wage-price spiral will appear *i. e.,* cost-push and demand-pull inflations might result in high rate of inflation. Production will be impaired. In that atmosphere people have a feeling of diffidence as regards the value of money and hence they try to get rid of it and prefer to store goods rather than money. "Unless a merchant is paid in some physical unit of some commodity, he will prefer to hoard his stock of goods rather than make the exchange." Eventually there comes a crash which leads to fall in prices, profits, employment, income and demand. In this way inflation has adverse effects on production. The adverse effects are as follows:

(i) Adverse Effect on Capital Formation. Since savings are adversely affected by inflation, the process of capital formation is also adversely affected.

(ii) Increase in Speculative Tendencies. Since inflation generates uncertainty, businessmen start concentrating on quick income yielding activities. Thus the resources are diverted from productive activities to speculative activities. Thus production is adversely affected.

(iii) Hoarding. Since value of money falls rapidly, everyone wants to stock goods. This creates artificial scarcity of goods in the market and encourages black marketing.

(iv) Pattern of Production. The pattern of production changes in such a way that resources are diverted from essential goods to luxuries. This adversely affects the economy.

(v) Deterioration in Quality. In order to make a gain out of increased demand and reduced supply, producers lower the quality of the product.

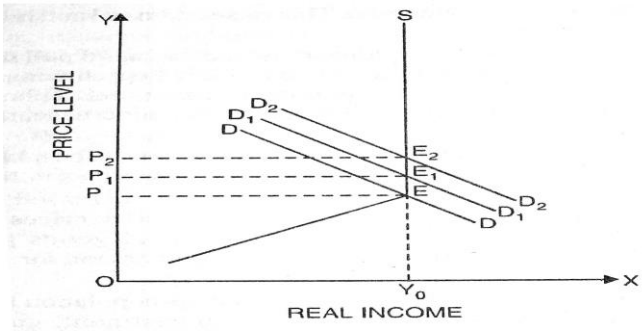
2. Effects on Distribution. If inflation affects each individual equally, there would not be any grudge and inconvenience. But actually inflation affects the different classes differently.

(i) Debtors and Creditors. During inflation the debtors gain and creditors lose because inflation transfers wealth from creditors to debtors. When prices rise, money buys less goods. Thus, though the debtors return the same amount of money, they return less in terms of goods. If you lend me Rs. 1000 today and the price level doubles, when I repay, in fact I repay 1/2 of the real purchasing power I had borrowed.

(ii) Investors. Investors are generally of two types— Investors in equities (shares) and investors in fixed interest yielding bonds and debentures. Inflation favours the former and hits hard the latter. When prices rise, the return on equities go up on account of increased profits while bonds and debenture holders gain nothing as their income remains the same. **(iii) Entrepreneurs.** Entrepreneurs whether they are manufacturers, traders, speculators, merchants or businessmen all gain from inflation. These people gain during rising prices because ***(a)*** they are mostly debtors and debtors gain, ***(b)*** their profits rise because they add a standard percentage mark upon their costs in setting the prices.

Q. Explain the concepts of demand-pull inflation and cost-push inflation?

Demand-Pull Inflation: According to this theory, inflation is that situation, where at a given price level total demand is more than total supply. Thus, inflation is caused by excess of demand. In words of Peterson, "Demand-pull inflation theory holds that inflation is caused by an excess of demand (spending) relative to the available supply of goods and services at existing prices." In nutshell according to demand pull inflation, the general price level rises because the demand for goods and services exceeds the supply available at existing prices. There are three approaches to demand pull inflation. The traditional theory and modern theory stress that increase in supply of money leads to an excess of demand. Besides supply of money, disposable income, consumer expenditures and business outlays and foreign demand are also inflationary factors on the demand side. This demand pull inflation can be studied with the help of a diagram.In Figure 3, real income has been taken on X-axis and price level on Y-axis. SS is the supply curve which rises upward from left to right from S to E and after that it becomes vertical at E which shows full employment DD, D_1D_1 and D_2D_2 are the different demand curves. When DD is the demand curve, it is equal to supply curve at E point at Oy0 level of income. It is also



The point of full employment. Given the aggregate demand DD and the full employment output or real income OYO, the equilibrium point is E, whereas price level is OP. Supply curve being perfectly inelastic after the full employment point E, every shift in demand curve only raises the price level (real income being constant). Causes of Demand Pull

(i) Increase in Money Supply. There may be an increase in money supply either when more currency is issued or banks create more credit. The increased money supply means increased purchasing power. This raises demand without increasing the supply of goods and services, leading to rise in price-level.

(ii) Increase in Public Expenditure. Today's state is a welfare state. Besides administrative function, state performs many welfare functions. Thus, there is increase in public expenditure which increases money income of people. This increases demand, raise prices causing inflationary tendencies.

(iii) Cheap Money Policy. If monetary authority adopts cheap money policy, this also leads to excess of demand. On the one hand, lower bank rate makes borrowing cheap and on the other hand, expansion of credit increases money supply. In this way cheap money policy also increases demand.

(iv) Increase in Disposable Income. If there is net addition in disposable income, the demand for goods and services will increase. Disposable income might increase because the rate of tax has been lowered or a tax has been withdrawn.

(v) Black Money. Black money is the unaccounted money which is earned through transactions. Black money means tax evasion. People spend this money on conspicuous consumption. This raises demand and hence price-level.

(vi) Increase in Investment. Another reason of demand-pull inflation is increase in investment. When producers have high expectations and they expect high profit, they increase the volume of investment. This increases the demand for factors of production. The factor prices increase, raising the product prices as well.

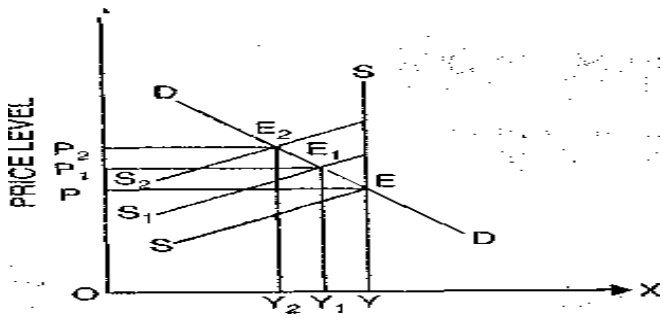
(vii) Reduction in Taxes. Reduction in taxes increases disposable income, thus demand for goods and services increases causing prices to rise.

(ix) Increase in Population. The rapid growth of population also raises effective demand by increasing consumption, investment, government expenditure and net foreign expenditure. This also increases inflationary pressure in the economy.

Cost push Inflation: Another theory of inflation relates to cost-push inflation. This type of inflation emerges due to increase in the costs, though for a common man, the explanation of inflation is to be found in rising of prices only. Cost-push inflation is called seller's inflation by A.E Lerner. Under it a country may experience stagnation I. e. rising prices with stagnation of growth and employment, with some unemployment seen in the country.

This inflation results from an increase in the cost of production like rise in the cost of raw materials and especially of wages. When labour market is imperfect and some strong trade unions are successful in getting higher wages, without increase in productivity, such a situation emerges. Increase in wage rate leads to higher cost of production thus raising price level. There is increase in unemployment. This type of inflation is also called wage-induced inflation. When prices start increasing, trade unions demand still higher wages thus increasing costs and prices all together. When firms in imperfect competition want to have a higher profit margin, they increase the prices. This is known as mark-up prices. The production is also reduced. Thus, because of fall in production and increase in profits, costs increase, increasing the prices. This inflation is also known as profit-induced inflation.

Thus, cost-push inflation is the result of increase in wages and increase in profits which increase cost of production and hence prices. It can be explained with the help of a diagram. (fig.. 4). In Figure 4, real income is taken on the X-axis and price level on the Y-axis. S is the original supply curve and DD is original demand curve. The equilibrium is attained at E point at OY level of income and OP price. This is also the point of full employment. If cost of production increases either due to increases in wages or profits, supply curve shifts upwards and the new supply curve is S1.



REAL INCOME (Fig. 4.)

The new supply curve intersects demand curve at E_1 point, where the real output is reduced from OY to OY_1 and prices are increased from OP to OP_1 .Similarly if supply curve shifts still further, the new point of equilibrium is E2 at OY_2 level of income and OP_2 level of prices. Thus, we find that on the one hand, price-level rises but on the other hand output and employment level falls.

Factors Affecting Cost-Push inflation:

(i) Less Production. The major cause of cost-push inflation is shortage of supply of goods and services as compared to their demand. If production is less than the demand, prices are bound to rise.

(ii) Hoarding and Speculation. Sometimes producers and traders may stock commodities to charge higher prices in future. This creates artificial scarcity and prices rise.

(iii) Wage and Cost Spiral. Strong trade unions maybe able to increase their wages without an equal increase in productivity. Wage rise pushes up costs which in turn push up prices, which again push up wages, costs and prices.

(iv) Taxation Policy. Indirect taxes raise the prices of commodities. If the commodity is subject to the law of increasing returns, prices may rise by more than the amount of tax because less is produced as the demand has gone down due to rise in prices, the cost of production rises. Thus raisings the price level.

(v) Industrial Relations. If there is a lack of industrial peace in the country, strikes and lock-outs are very common resulting in fall in production and rise in prices.

(vi) Technical Changes. When some new technique of production is adopted, it takes some time for the production process to be adjusted. In the transitional period, the production may fall but workers and experts have to be paid the same wages. Thus, cost of production rises raising the price level.

(vii) Lack of Raw Materials. When there is a shortage of raw materials, cost of production increases, hence the prices.

(viii) War. During war, needs of the army and defiance have to be met first. Thus, the supply of goods for civilian consumption is reduced. Thus, prices go up.

Q. Explain The Inflationary Gap?

Ans: In his pamphlet How to pay for the War published in 1940, Keynes explained the concept of the inflationary gap. It differs from his views on inflation given in his General Theory. In the General Theory, he started with underemployment equilibrium. But in How to Pay for the War, he began with a situation of full employment in the economy.

He defined an inflationary gap as an excess of planned expenditure over the available output at pre-inflation or base prices. According to Lipsey, "The inflationary gap is the amount by which aggregate expenditure would exceed aggregate output at the full employment level of income." The classical economists explained inflation as mainly due to increase in the quantity of money, given the level of full employment.

Keynes, on the other hand, ascribed it to the excess of expenditure over income at the full employment level. The larger the aggregate expenditure, the larger the gap and the more rapid the inflation. Given a constant average propensity to save, rising money incomes at full employment level would lead to an excess of demand over supply and to a consequent inflationary gap. Thus Keynes used the concept of the inflationary gap to show the main determinants that cause an inflationary rise of prices.

The inflationary gap is explained with the help of the following example:

Suppose the gross national product at pre-inflation prices is Rs. 200 crores. Of this Rs. 80 crores is spent by the government. Thus Rs. 120 (Rs. 200-80) crores worth of output is available to the public for consumption at pre-inflation prices. But the gross national income at current prices at full employment level is Rs. 250 crores. Suppose the government taxes away Rs. 60 crores, leaving Rs. 190 crores as disposable income. Thus Rs. 190 crores is the amount to be spent on the available output worth Rs. 120 crores, thereby creating an inflationary gap of Rs. 70 crores.

This inflationary gap model is illustrated as under:

1. Gross national income at current prices = Rs. 250 Cr.

2. Taxes	=	Rs. 60 Cr.
3. Disposable income	=	Rs. 190 Cr.
4. GNP at pre-inflation prices	=	Rs. 200 Cr.
5. Government expenditure	=	Rs. 80 Cr.
6. Output available for consumption at pre-inflation prices	=	Rs. 120 Cr.
Inflationary gap (Item 3-6)	=	Rs. 70 Cr.

In reality, the entire disposable income of Rs. 190 crores is not spent and a part of it is saved. If, say 20 per cent (Rs, 38 crocs) of it is saved, then Rs. 152 crores (Rs. 190-Rs. 38 crores) would be left to create demand for goods worth Rs. 120 crores. Thus the actual inflationary gap would be Rs. 32 (Rs. 152—120) crores instead of Rs. 70 crores.

The inflationary gap is shown diagrammatically in Figure 5 where OY_F is the full employment level of income, 45° line represents aggregate supply AS and C + 1 + G line the desired level of consumption, investment and government expenditure (or aggregate demand curve).

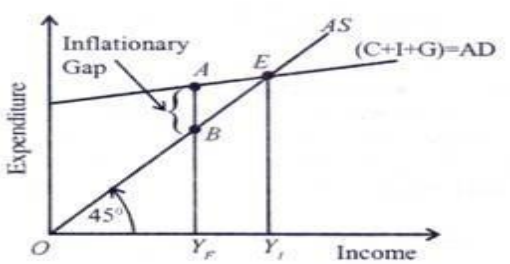


Fig. 5

The economy's aggregate demand curve (C + l +G) = AD intersects the 45° line (AS) at point E at the income level OY_1which is greater than the full employment income level OY_F The amount by which aggregate demand (Y_FA) exceeds the aggregate supply (Y_FB) at the full employment income level is the inflationary gap. This is AB in the figure. The excess volume of total spending when resources are fully employed creates inflationary pressures. Thus the inflationary gap leads to inflationary pressures in the economy which are the result of excess aggregate demand.

Q. How can the inflationary gap be wiped out?

Ans: The inflationary gap can be wiped out by increase in savings so that the aggregate demand is reduced. But this may lead to deflationary tendencies. Another solution is to raise the value of available output to match the disposable income. As aggregate demand increases, businessmen hire more labour to expand output. But there being full employment at the current money age, they offer higher money wages to induce more workers to work for them. As there is already full employment, the increase in money wages leads to proportionate rise in prices. Moreover, output cannot be increased during the

short run because factors are already fully employed. So the inflationary gap can be closed by increasing taxes and reducing expenditure. Monetary policy can also be used to decrease the money stock. But Keynes was not in favour of monetary measures to control inflationary pressures within the economy.

Q. What are the causes of inflation? Explain briefly the remedies of inflation?

Ans. Inflation always gathers momentum and prices rise in a vicious circle. Whatever may be the cause, once inflationary rise in prices takes place, it will continue to do so. Causes of inflation may be different in different countries, but broadly speaking, the following are the main causes of inflation:

1. **Deficit Financing.** In times of war or under other abnormal situations requiring a huge increase in government spending, the Government for meeting this expenditure may resort to deficit financing which increases the money supply in the hands of the people, thereby increasing their demand for goods and services. In most of the developing countries, the governments have to obtain funds for executing the development plans through deficit financing and this has led to a situation of inflation.
2. **Increase in the Velocity of Money**. During periods of boom and prosperity, owing to an increase in the MEC and MPC, the velocity of circulation of money increases. Higher velocity of money results in higher prices.
3. **Expansion of Credit**. The expansion of credit may be resorted to either as a matter of policy by the Government or by the commercial banks of the country. The Central Bank can expand credit by lowering the bank rate or by purchasing government securities. The commercial banks can expand credit by lowering the cash reserves. Expansion of credit is generally resorted to in periods of increasing economic activity and once it starts, it continues for a sufficiently long period of time. With expansion of credit, prices start rising.
4. **Increase in Public Expenditure.** Aggregate demand may also increase as a result of an increase in public expenditure either for meeting the requirements of defence, or of economic development or for boosting the level of economic activity in the economy. With the increase in demands for goods and services, prices increase. Similarly, with the increase in private Expenditure, there is an increase in the demand for the services of factors of production. This results in an increase in factor-prices which leads to ah increase in expenditure on consumption goods and rise in prices.
5. **Expansion of Exports.** If the export of commodities increases, .less goods are available for domestic consumption. This would make the existing demand at home excessive of the available quantity of goods leading to increase in their prices. Increase in exports creates a situation of shortages in the economy giving rise to inflationary pressures.
6. **Increase in Population.** Increase in the population of a country raises the general level of aggregate demand of the people for goods and services. As Prof. Coulborn states, "If population increases rapidly while the aggregate volume of money remains stable, the consequent rise in the velocity of circulation is likely to outweigh the countervailing decrease in the volume of money per head; further a rapid increase of population may increase output less than proportionately— another factor tending to raise prices."
7. **Trade Union Activities.** These days trade unions are very strong. They continuously agitate for higher wages, shorter hours of work, more holidays with pay and other amenities. In a democratic

country, the Government is often compelled to accede to the unreasonable demands of the workers. The increase in wages increases the purchasing ‘power of the workers and hence the aggregate demand which leads to rise in prices.

8. Reduction in Taxation. The reduction in taxation offered by the government can also be an important cause for the emergence of excess demand in the economy. When the government reduces taxes, it results in an increase in purchasing power in the hands of the public. With increased purchasing power, the people are in a position to buy more and more of goods and services for private consumption.

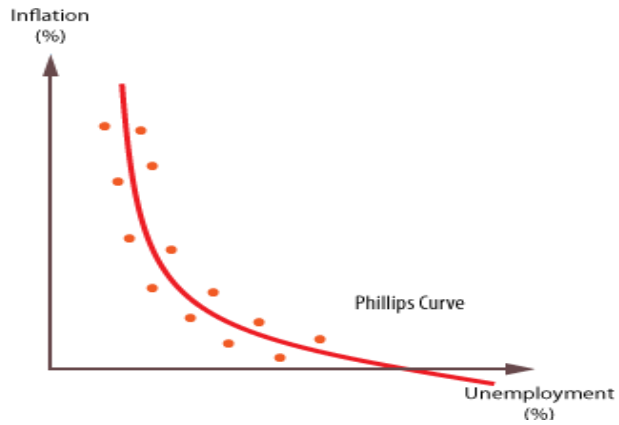
Shortage of Supplies of Factors of Production. Occasionally, the economy of a country may be confronted with shortages of such factors as labour, capital equipment, raw materials, etc. These shortages are bound to reduce the production of goods and services for consumption purposes. In fact, the shortage of productive factors is a serious obstacle to any effort to increase production in the country. Trade union activities also lead to decline in production and rise in prices.

Q. Explain the meaning of Philips curve?

Ans. The inverse relationship between unemployment rate and inflation when graphically charted is called the Phillips curve. William Phillips pioneered the concept first in his paper "The Relation between Unemployment and the Rate of Change of Money Wage Rates in the United Kingdom, 1860-1957,' in 1958. This theory is now proven for all major economies of the world. Also called tradeoff curve, it was invented in 1958 by the UK engineer and economist Albert William Housego Phillips (1914-75).

Description: The theory states that the higher the rate of inflation, the lower the unemployment and vice-versa. Thus, high levels of employment can be achieved only at high levels of inflation. The policies to induce growth in an economy, increase in employment and sustained development are heavily dependent on the findings of the Phillips curve. When economists from other countries undertook similar research, they also found very similar curves for their own economies.

Phillips analysed annual wage inflation and unemployment rates in the UK for the period 1860 – 1957, and then plotted them on a scatter diagram.

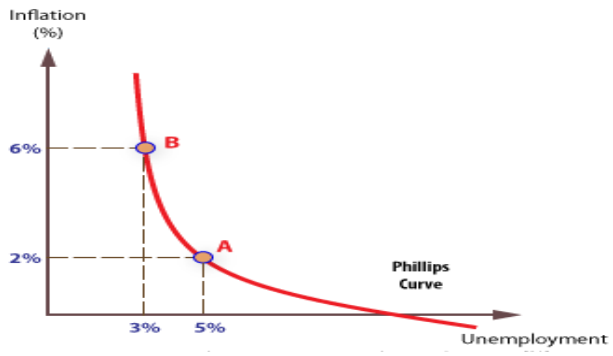


The curve suggested that changes in the level of unemployment have a direct and predictable effect on the level of price inflation. The accepted explanation during the 1960's was that a fiscal stimulus, and increase in AD, would trigger the following sequence of responses:

1. An increase in the demand for labour as government spending generates growth.
2. The pool of unemployed will fall.
3. Firms must compete for fewer workers by raising nominal wages.
4. Workers have greater bargaining power to seek out increases in nominal wages.
5. Wage costs will rise.
6. Faced with rising wage costs, firms pass on these cost increases in higher prices.

Exploiting the Phillips curve

It quickly became accepted that policy-makers could exploit the tradeoff between unemployment and inflation - a little more unemployment meant a little less inflation.



During the 1960s and 70s, it was common practice for governments around the world to select a rate of inflation they wished to achieve, and then expand or contract the economy to obtain this target rate. This policy became known as stop-go, and relied strongly on fiscal policy to create the expansions and contractions required.

The breakdown of the Phillips curve: By the mid 1970s, it appeared that the Phillips Curve trade off no longer existed - there no longer seemed a stable pattern. The stable relationship between unemployment and inflation appeared to have broken down. It was possible to have a number of inflation rates for any given unemployment rate.

American economists Friedman and Phelps offered one explanation - namely that there is not one Phillips curve, but a series of short run Phillips Curves and a long run Phillips Curve, which exists at the natural rate of unemployment (NRU). Indeed, in the long-run, there is no trade-off between unemployment and inflation. However, the implications of Phillips curve have been found to be true

only in the short term. Phillips curve fails to justify the situations of stagflation, when both inflation and unemployment are alarmingly high.

The *Phillips curve* comprises two economic variables which monetary policy-makers are responsible for maintaining at low levels: unemployment and inflation. The inverse nature of the Phillips curve shows that maintaining a low level in either one leads to a likely increase in the other. For this reason, monetary strategists and policy-makers need to strike an effective balance between inflation and unemployment.

Q. What is 'Stagflation'?

Ans: A condition of slow economic growth and relatively high unemployment – economic stagnation – accompanied by rising prices and a decline in Gross Domestic Product (GDP). **Stagflation:** Stagflation is a new term which has been added to economic literature in the 1970s. It is a paradoxical phenomenon where the economy expedience's stagnation as well as inflation. The word stagflation is the combination of' stag' plus 'flation' taking 'stag' from stagnation and 'flation' from inflation.

Stagflation is a situation when recession is accompanied by a high rate of inflation. It is, therefore, also called inflationary recession. The principal cause of this phenomenon has been excessive demand in commodity markets, thereby causing prices to rise, and at the same time the demand for labour is deficient, thereby creating unemployment in the economy. Three factors have been responsible for the existence of stagflation in the advanced countries since 1972. First, rise in oil prices and other commodity prices along with adverse changes in the terms of trade, second, the steady and substantial growth of the labour force; and third, rigidities in the wage structure due to strong trade unions.

Theories on the Causes of Stagflation

There are two main theories on what causes stagflation. One theory states that this economic phenomenon is caused when a sudden increase in the cost of oil reduces an economy's productive capacity. Because transportation costs rise, producing products and getting them to shelves gets more expensive and prices rise even as people get laid off.

Another theory is that the confluence of stagnation and inflation are results of poorly made economic policy. Simply allowing inflation to go rampant, and then suddenly snapping the reigns on inflation is one example of poor policy that some have argued can contribute to stagflation, while others cite harsh regulation of markets, goods, and labor combined with allowing central banks to print excessive amounts of money are cited as another possible cause of stagflation.

Contemporary economists like Oliver Blanchard cite both supply shocks on the prices of goods and worker output, as well as incorrect predictions made by Keynesian economics as the cause of stagflation and the inability of economics to understand it.

Q: What are the causes of Stagflation?

Ans: Different economists sought to explain the phenomenon of stagflation differently. Three leading views are given below:

1. Keynesian View: The Keynesians explain the phenomenon of stagflation in terms of upward shift in Phillips curve. This upward shift in the Phillips curve is caused mainly by various cost-push factors, such as

(a) Increase in the world prices of crude oil;

(b) Wage increases due to strong trade unions;

(c) Wage increases due to higher cost of living during inflationary period;

(d) Changes in the composition of demand for labour in the dynamic conditions, causing an upward shift in wages; etc.

2. Supply-side View: Supply-side economists hold the view that various government actions and regulations, which raise cost of production and restrict aggregate supply of goods and services, are responsible for the phenomenon of stagflation.

Higher tax rates, minimum wage legislation, social security measures are some such actions. A higher marginal tax rate for example, induces workers to work less.

The underlying assumption it that the individuals while acting as workers, savers and investors always respond to the changes on the margin.

When the marginal tax rate is raised, it reduces the after-tax pay of the workers, after-tax interest earnings of the savers, and after-tax return of the investors.

All this will reduce work effort, saving and investment, which, in turn, reduce output and employment, and increase prices.

3. Monetarist View: According to the monetarists, the phenomenon of stagflation is the result of changes in inflationary expectations. The monetarist view has been explained in the Friedman-Phelps model.

The Friedman-Phelps model states that an expansionary monetary policy can increase employment at the cost of inflation only if the workers do not correctly anticipate the inflation rate. Such a policy to reduce employment is doomed to be a failure.

It will appear successful only in the short period as long as the government is able to fool labour by maintaining an actual inflation rate greater than that expected by labour.

In the long run, when the labour will correctly anticipate the higher rate of inflation, the unemployment rate will return to its natural level.

Thus, in the long period, the expansionary monetary policy will lead to an increase in both the price level and the unemployment rate.

Unit 4th Balance of payments and exchange rate

Q: Explain the concept of BOP and the components of balance of payments?

Ans: Most of exports and imports involve finance i.e. receipts and payments in money. An account of all receipts and payments is termed as Balance of Payments (BOP). According to **Kindle Berger**, "The balance of payments of a country is a systematic record of all economic transactions between the residents of the reporting country and residents of foreign countries during a given period of time". The balance of payment record is maintained in a standard double-entry book-keeping method. International transactions enter in to the record as credit or debit. The payments received from foreign countries enter as credit and payments made to other countries as debit. Balance of Payment is a record pertaining to a period of time; usually it is all annual statement. All the transactions entering the balance of payments can be grouped under three broad accounts; (1) Current Account, (2) Capital Account, and (3) Official International Reserve Account. However, it can be vertically divided into many categories as per the requirement.

Structure of Balance of Payment (BOP)

Receipts (Credits)	*Payments (Debits)*
1) Exports of goods	1) Imports of goods
Trade Account Balance	
2) Exports of services	2) Imports of services
3) Interests, profits and dividends received	3) Interests, profits and dividends paid
4) Unilateral receipts	4) Unilateral Payments
Current Account Balance (1 to 4)	
5) Foreign Investments	5) Investments abroad
6) Short term borrowing	6) Short term lending
7) Medium and long term borrowing	7) Medium and long term lending
8) Statistical discrepancy (Errors and omission)	
Capital Account Balance (5 to 8)	
9) Change in reserves (+)	9) Change in reserves
Total Receipts = Total payments	

1. Trade Account Balance: It is the difference between exports and imports of goods, usually referred as visible or tangible items. Till recently goods dominated international trade. Trade account balance tells as whether a country enjoys a surplus or deficit on that account. An industrial country with its industrial products comprising consumer and capital goods always had an advantageous position. Developing countries with its export of primary goods had most of the time suffered from a deficit in their balance of payments. Most of the OPEC countries are in better position on trade account balance. The Balance of Trade is also referred as the '**Balance of Visible Trade**' or '**Balance of Merchandise Trade**'.
2. **Current Account Balance:** It is difference between the receipts and payments on account of current account which includes trade balance. The current account includes export of services, interests, profits, dividends and unilateral receipts from abroad, and the import of services, interests, profits, dividends and unilateral Payments to abroad. There can be either surplus or deficit in current account. The deficit will take place when the debits are more than credits or when payments are more than receipts and the current account surplus will take place when the credits are more than debits.
3. **Capital Account Balance**: It is difference between the receipts and payments on account of capital account. The capital account involves inflows and outflows relating to investments, short term borrowings/lending, and medium term to long term borrowing/lending. There can be surplus or deficit in capital account. The surplus will take place when the credits are more than debits and the deficit will take place when the debits are more than credits.

4. Foreign Exchange Reserves: Foreign exchange reserves (Check item No.9 in above figure) shows the reserves which are held in the form of foreign currencies usually in hard currencies like dollar, pound etc., gold and Special Drawing Rights (SDRs). Foreign exchange reserves are analogous to an individual's holding of cash. They increase when the individual has a surplus in his transactions and decrease when he has a deficit. When a country enjoys a net surplus both in current account & capital account, it increases foreign exchange reserves. Whenever current account deficit exceeds the inflow in capital account, foreign exchange from the reserve accounts is used to meet the deficit If a country's foreign exchange reserves rise, that transaction is shown as minus in that country's balance of payments accounts because money is been transferred to the foreign exchange reserves.

Foreign exchange reserves are used to meet the deficit in the balance of payments. The entry is in the receipt side as we receive the forex for the particular year by reducing the balance from the reserves. When surplus is transferred to the foreign exchange reserve, it is shown as minus in that particular year's balance of payment account. The minus sign (-) indicates an increase in forex and plus sign (+) shows the borrowing of foreign exchange from the forex account to meet the deficit.

5. Errors and Omission: The errors may be due to statistical discrepancies & omission may be due to certain transactions may not be recorded. For e.g.: A remittance by an Indian working abroad to India may not yet recorded, or a payment of dividend abroad by an MNC operating in India may not yet recorded or so on. The errors and omissions amount equals to the amount necessary to balance both the sides

Q14: What is meant by Disequilibrium in BOP?

Ans: Normally, the balance of payments of a country should be in equilibrium 1.e. the imports and exports of goods and services should be equal. But in reality Thus not Disequilibrium generally arises in the balance of payments account. BOP may be unfavorable when there excess of imports and exports (deficit balance), it may be favourable when there is excess of exports over imports (surplus balance). The phenomenon of disequilibrium is particularly related to the current account of balance of the payments statement, the capital account is used to settle the imbalance in the account though changes in the financial flows of funds.

Q15: What do you mean by Equilibrium in balance of payments?

Ans: Equilibrium is that state of the balance of payments over the relevant time period which makes it possible to sustain an open economy without severe unemployment on a continuing basis the essentials in the definition are:

(a) Relevant tone period.
(b) Openness of economy (i.e., no under restriction on imports,
(c) Absence of unemployment and
(d) Continuing basis of the equilibrium (i.e., it is capable of being sustained).

Static Equilibrium: In static equilibrium, exports must equal imports including exports and imports of services as well as goods and the other items on the balance of payments short term capital long term and monetary gold, are on balance zero (not only should the balance of payment be in equilibrium but the national incomes should be is equilibrium various money in come abroad

Dynamic equilibrium :The condition of dynamic equilibrium for short periods of time is that exports and imports differ by the amount of short term capital movements and gold and there are no large do-stabilizing short term capital movements The condition of dynamic equilibrium for the long run is that exports and imports differ by the amount of long term autonomous capital movements made in a normal direction, I.e., from the low interest-rate country to those with high rates when the bop of a country is in equilibrium the demand for domestic currency is equal to its supply

Q. Explain the <u>Measures To Correct Deficit in the Balance of Payment BOP</u>?

Ans. Solution to correct balance of payment disequilibrium lies in earning more foreign exchange through additional exports or reducing imports. Quantitative changes in exports and imports require policy changes. Such policy measures are in the form of monetary, fiscal and non-monetary measures.

Monetary Measures for Correcting the BoP

The monetary methods for correcting disequilibrium in the balance of payment are as follows:-

Deflation: Deflation means falling prices. Deflation has been used as a measure to correct deficit disequilibrium. A country faces deficit when its imports exceeds exports. Deflation is brought through monetary measures like bank rate policy, open market operations, etc or through fiscal measures like higher taxation, reduction in public expenditure, etc. Deflation would make our items cheaper in foreign

market resulting a rise in our exports. At the same time the demands for imports fall due to higher taxation and reduced income. This would built a favourable atmosphere in the balance of payment position. However Deflation can be successful when the exchange rate remains fixed.

2. **Exchange Depreciation**: Exchange depreciation means decline in the rate of exchange of domestic currency in terms of foreign currency. This device implies that a country has adopted a flexible exchange rate policy. Suppose the rate of exchange between Indian rupee and US dollar is $1 = Rs. 40. If India experiences an adverse balance of payments with regard to U.S.A, the Indian demand for US dollar will rise. The price of dollar in terms of rupee will rise. Hence, dollar will appreciate in external value and rupee will depreciate in external value. The new rate of exchange may be say $1 = Rs. 50. This means 25% exchange depreciation of the Indian currency. Exchange depreciation will stimulate exports and reduce imports because exports will become cheaper and imports costlier. Hence, a favourable balance of payments would emerge to pay off the deficit.

3. Devaluation: Devaluation refers to deliberate attempt made by monetary authorities to bring down the value of home currency against foreign currency. While depreciation is a spontaneous fall due to interactions of market forces, devaluation is official act enforced by the monetary authority. Generally the international monetary fund advocates the policy of devaluation as a corrective measure of disequilibrium for the countries facing adverse balance of payment position. When India's balance of payment worsened in 1991, IMF suggested devaluation. Accordingly, the value of Indian currency has been reduced by 18 to 20% in terms of various currencies. The 1991 devaluation brought the desired effect. The very next year the import declined while exports picked up. When devaluation is effected, the value of home currency goes down against foreign currency, Let us suppose the exchange rate remains $1 = Rs. 10 before devaluation. Let us suppose, devaluation takes place which reduces the value of home currency and now the exchange rate becomes $1 = Rs. 20. After such a change our goods becomes cheap in foreign market. This is because, after devaluation, dollar is exchanged for more Indian currencies which push up the demand for exports. At the same time, imports become costlier as Indians have to pay more currencies to obtain one dollar. Thus demand for imports is reduced.

Exchange Control: It is an extreme step taken by the monetary authority to enjoy complete control over the exchange dealings. Under such a measure, the central bank directs all exporters to surrender their foreign exchange to the central authority. Thus it leads to concentration of exchange reserves in the hands of central authority. At the same time, the supply of foreign exchange is restricted only for essential goods. It can only help controlling situation from turning worse. In short it is only a temporary measure and not permanent remedy.

Non-Monetary Measures for Correcting the BOP

A deficit country along with Monetary measures may adopt the following non-monetary measures too which will either restrict imports or promote exports.

1. Tariffs: Tariffs are duties (taxes) imposed on imports. When tariffs are imposed, the prices of imports would increase to the extent of tariff. The increased prices will reduced the demand for imported goods and at the same time induce domestic producers to produce more of import substitutes. Non-essential imports can be drastically reduced by imposing a very high rate of tariff.

2. Quotas: Under the quota system, the government may fix and permit the maximum quantity or value of a commodity to be imported during a given period. By restricting imports through the quota system, the deficit is reduced and the balance of payments position is improved.

3. Export Promotion: The government can adopt export promotion measures to correct disequilibrium in the balance of payments. This includes substitutes, tax concessions to exporters, marketing facilities, credit and incentives to exporters, etc. The government may also help to promote export through exhibition, trade fairs; conducting marketing research & by providing the required administrative and diplomatic help to tap the potential markets.

4. Import Substitution: A country may resort to import substitution to reduce the volume of imports and make it self-reliant. Fiscal and monetary measures may be adopted to encourage industries producing import substitutes. Industries which produce import substitutes require special attention in the form of various concessions, which include tax concession, technical assistance, subsidies, providing scarce inputs, etc. Non-monetary methods are more effective than monetary methods and are normally applicable in correcting an adverse balance of payments.

Q. What do you by mean by foreign exchange rate?

Ans. Foreign exchange rate refers the rate at which one unit of currency of a country can be exchanged for the number of units of currency of another country. For example 1S=Rs .50 or Re 1 =1/50 dollars.

Thus it is the ratio of exchange between currencies of two countries.

In other words of Crowther, "The rate of exchange measures number of units of one currency which is exchanged in the foreign market for one unit of another".

Q. What are the main sources of demand for foreign currency?

Ans. The three main sources of demand for foreign currency are:-

- Payments of international loans.
- Gifts and grants to the rest of the world.
- Investment in rest of the world.
- To purchase goods and services from other countries.

Q. What are the main sources of supply of foreign currency?

Ans. Following are the main sources of supply of foreign exchange:

1) Foreigners purchasing home countries goods and services through exports.
2) Foreign investment in home country through financial market operations.

3) Foreign investment in home country through joint ventures.
4) Foreign currencies flow into the economy due to currency dealers and speculators.

Q. What is meant by two tier exchange rate system?

Ans. Two – tier exchange rate system is a system under which a country maintains two rates, a higher rate for commercial transactions and a lower rate for capital transactions.

Q. What is fixed exchange rate system?

Ans. Under fixed exchange rate system is officially declared and is fixed .Only a very small deviation from this fixed value is possible. This system was associated with the Gold standard system of 1881-1914 in which each currency value was defined in terms of gold and hence the exchange rate was fixed according to the gold value of currencies that have been to be exchanged .This was referred so as mint par value of exchange.

Q. What is adjustable peg system? OR Britton wood system of exchange rates?

Ans. The gold standard was abandoned in 1920's and an alternate system of fixed exchange rate called Britton woods system was established in 1944.Under this system US dollar was made directly convertible into gold at a fixed price. Member countries fixed their rates of exchange as against US dollar. Britton wood system was also called an adjustable peg system. Because being a fixed system of exchange rates some adjustment made possible but by a small proportion.

Q. What is flexible exchange rate system?

Ans. Flexible exchange rate is a system under which exchanges rates are allowed to float freely and are determined by the marketing forces of demand and supply.

Q. How fixed exchange rates are determined?

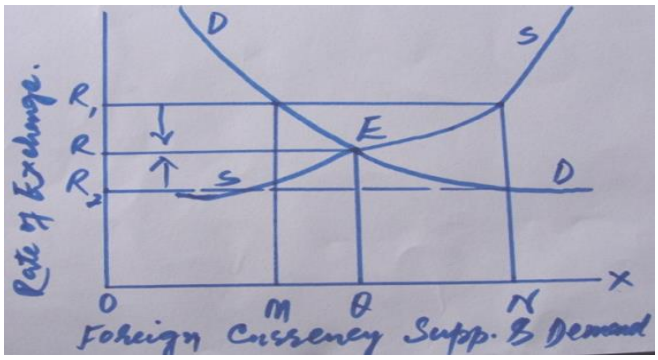
Ans. Fixed exchange rate is determined by the government of a country and the government alone can introduce changes in it. Before 1930, gold standard was prevalent in the internationals market. Under system of gold standard, the value of each currency is determined by the gold contents of two countries. For example, if one dollar is equal to one gram of gold and one pound is equal to two grams of gold then one pound is equal two grams of gold, then the fixed exchange rate will be:

1 pound =2 dollars.

Q. How is flexible exchange rate determined?

Ans. Flexible exchange rate depends on the forces of demand and supply of foreign exchange .The rate at which demand for and supply of foreign exchange are equal is called par value of exchange and it is known as equilibrium rate of exchange. The demand for foreign exchange rate is indirectly related to price which means higher the rate of exchange and lower will be the demand and vice versa. On the other hand supply of foreign exchange and rate of exchange are positively related means higher the rate

of exchange higher will be the supply of foreign exchange. Exchange rate is determined at the point where demand for foreign exchange is equal to supply of foreign exchange .This can be shown with the help of following diagram.



In the above diagram demand and supply of foreign exchange are equal at E, hence OR is equilibrium of exchange and OQ is equilibrium quantity of foreign exchange.

Q. Why does exchange rate fluctuate?

Ans. Exchange rate keep on changing because of changing economic conditions and economic equations between two or more countries. The main factors which affect or cause the exchange rates to fluctuate are given below.

1**). Trade conditions**. Changes in demand and supply conditions of the foreign exchange which in turn are affected by the export and import conditions affect exchange rate. E, g, if import of a country exceeds its exports to some country, it would like to devalue its currency.

2). **Effects of stock exchange,** influences of the transactions in stock, shares and other securities carried out at the stock exchange on the demand and supply of foreign exchange also effects the exchange rate**.**

3) **Political conditions.** Changing political conditions nationally and internationally effect direction and composition of foreign trade and capital movements. These in turn affect rate of exchange.

4). Internal price level. Conditions of inflation and deflation prevailing in a country also affect rate of exchange.

5). Global defense scenario. Are some other reasons.

Q. Explain difference between Spot Market and Forward Market?

Foreign exchange markets are sometimes classified into spot market and forward market on the basis of the period of transaction carried out. It is explained below:

(a) Spot Market: If the currency operation is of daily nature, it is called spot market . it measures the strength of the domestic currency with reference to the currencies of the other countries. It handles only spot transactions in foreign exchange. Transactions are affected at prevailing rate of exchange at that point of time and delivery of foreign exchange is affected instantly. The exchange rate that prevails in the spot market for foreign exchange is called Spot Rate.

For instance, if one US dollar can be purchased for Rs 40 at the point of time in the foreign exchange market, it will be called spot rate of foreign exchange. No doubt, spot rate of foreign exchange is very useful for current transactions. The measure of average relative strength of a given currency is called Effective Exchange Rate (EER).

(b) Forward Market: A market in which foreign exchange is bought and sold for future delivery is known as Forward Market. It deals with transactions (sale and purchase of foreign exchange) which are contracted today but implemented sometimes in future. Exchange rate that prevails in a forward contract for purchase or sale of foreign exchange is called Forward Rate. Thus, forward rate is the rate at which a future contract for foreign currency is made. This rate is settled now but actual transaction of foreign exchange takes place in future. Forward Market for foreign exchange covers transactions which occur at a future date. Forward exchange rate helps both the parties involved.

Q. Define foreign exchange market? What are its functions?

Ans. Meaning: Foreign exchange market is the market in which foreign currencies are bought and sold. The buyers and sellers include individuals, firms, foreign exchange brokers, commercial banks and the central bank. Foreign exchange market is a system, not a place. The transactions in this market are not confined to only one or few foreign currencies. In fact, there are a large number of foreign currencies which are traded, converted and exchanged in the foreign exchange market.

Foreign exchange market performs the following three functions:

1. Transfer Function: It transfers purchasing power between the countries involved in the transaction. This function is performed through credit instruments like bills of foreign exchange, bank drafts and telephonic transfers.

2. Credit Function: It provides credit for foreign trade. Bills of exchange, with maturity period of three months, are generally used for international payments. Credit is required for this period in order to enable the importer to take possession of goods, sell them and obtain money to pay off the bill.

3. Hedging Function: When exporters and importers enter into an agreement to sell and buy goods on some future date at the current prices and exchange rate, it is called hedging. The purpose of hedging is to avoid losses that might be caused due to exchange rate variations in the future.