Macro Economic Concepts:

National Income

The important concepts of national income are:

1. Gross Domestic Product (GDP)

2. Gross National Product (GNP)

3. Net National Product (NNP) at Market Prices

4. Net National Product (NNP) at Factor Cost or National Income

5. Personal Income

6. Disposable Income

Let us explain these concepts of National Income in detail.

1. Gross Domestic Product (GDP): Gross Domestic Product (GDP) is the total market value of all final goods and services currently produced within the domestic territory of a country in a year.

Four things must be noted regarding this definition.

First, it measures the market value of annual output of goods and services currently produced. This implies that GDP is a monetary measure.

Secondly, for calculating GDP accurately, all goods and services produced in any given year must be counted only once so as to avoid double counting. So, GDP should include the value of only final goods and services and ignores the transactions involving intermediate goods.

Thirdly, GDP includes only currently produced goods and services in a year. Market transactions involving goods produced in the previous periods such as old houses, old cars, factories built earlier are not included in GDP of the current year.

Lastly, GDP refers to the value of goods and services produced within the domestic territory of a country by nationals or non-nationals.

2. Gross National Product (GNP): Gross National Product is the total market value of all final goods and services produced in a year. GNP includes net factor income from abroad whereas GDP does not. Therefore,

GNP = GDP + Net factor income from abroad.

Net factor income from abroad = factor income received by Indian nationals from abroad – factor income paid to foreign nationals working in India.

3. Net National Product (NNP) at Market Price: NNP is the market value of all final goods and services after providing for depreciation. That is, when charges for depreciation are deducted from the GNP we get NNP at market price. Therefore’

NNP = GNP – Depreciation

Depreciation is the consumption of fixed capital or fall in the value of fixed capital due to wear and tear.

***4.Net National Product (NNP) at Factor Cost (National Income)*:** NNP at factor cost or National Income is the sum of wages, rent, interest and profits paid to factors for their contribution to the production of goods and services in a year. It may be noted that:

NNP at Factor Cost = NNP at Market Price – Indirect Taxes + Subsidies.

5. Personal Income: Personal income is the sum of all incomes actually received by all individuals or households during a given year. In National Income there are some income, which is earned but not actually received by households such as Social Security contributions, corporate income taxes and undistributed profits. On the other hand there are income (transfer payment), which is received but not currently earned such as old age pensions, unemployment doles, relief payments, etc. Thus, in moving from national income to personal income we must subtract the incomes earned but not received and add incomes received but not currently earned. Therefore,

Personal Income = National Income – Social Security contributions – corporate income taxes – undistributed corporate profits + transfer payments.

Disposable Income: From personal income if we deduct personal taxes like income taxes, personal property taxes etc. what remains is called disposable income. Thus,

Disposable Income = Personal income – personal taxes.

Disposable Income can either be consumed or saved. Therefore,

Disposable Income = consumption + saving.

MEASUREMENT OF NATIONAL INCOME

Production generate incomes which are again spent on goods and services produced. Therefore, national income can be measured by three methods:

1. Output or Production method

2. Income method, and

3. Expenditure method.

1. Output or Production Method: This method is also called the value-added method. This method approaches national income from the output side. Under this method, the economy is divided into different sectors such as agriculture, fishing, mining, construction, manufacturing, trade and commerce, transport, communication and other services. Then, the gross product is found out by adding up the net values of all the production that has taken place in these sectors during a given year.

In order to arrive at the net value of production of a given industry, intermediate goods purchase by the producers of this industry are deducted from the gross value of production of that industry. The aggregate or net values of production of all the industry and sectors of the economy plus the net factor income from abroad will give us the GNP. If we deduct depreciation from the GNP we get NNP at market price. NNP at market price – indirect taxes + subsidies will give us NNP at factor cost or National Income.

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2. Income Method: This method approaches national income from the distribution side. According to this method, national income is obtained by summing up of the incomes of all individuals in the country. Thus, national income is calculated by adding up the rent of land, wages and salaries of employees, interest on capital, profits of entrepreneurs and income of self-employed people.

This method of estimating national income has the great advantage of indicating the distribution of national income among different income groups such as landlords, capitalists, workers, etc.

3. Expenditure Method: This method arrives at national income by adding up all the expenditure made on goods and services during a year. Thus, the national income is found by adding up the following types of expenditure by households, private business enterprises and the government: -

(a) Expenditure on consumer goods and services by individuals and households denoted by C. This is called personal consumption expenditure denoted by C.

(b) Expenditure by private business enterprises on capital goods and on making additions to inventories or stocks in a year. This is called gross domestic private investment denoted by I.

(c) Government's expenditure on goods and services i.e. government purchases denoted by G.

(d) Expenditure made by foreigners on goods and services of the national economy over and above what this economy spends on the output of the foreign countries i.e. exports – imports denoted by

(X – M). Thus,

GDP = C + I + G + (X – M).

Difficulties in the Measurement of National Income

There are many difficulties in measuring national income of a country accurately. The difficulties involved are both conceptual and statistical in nature. Some of these difficulties or problems are discuss below:

1. The first problem relates to the treatment of non-monetary transactions such as the services of housewives and farm output consumed at home. On this point, the general agreement seems to be to exclude the services of housewives while including the value of farm output consumed at home in the estimates of national income.

2. The second difficulty arises with regard to the treatment of the government in national income accounts. On this point the general viewpoint is that as regards the administrative functions of the government like justice, administrative and defense are concerned they should be treated as giving rise to final consumption of such services by the community as a whole so that contribution of general government activities will be equal to the amount of wages and salaries paid by the government. Capital formation by the government is treated as the same as capital formation by any other enterprise.

3. The third major problem arises with regard to the treatment of income arising out of the foreign firm in a country. On this point, the IMF viewpoint is that production and income arising from an enterprise should be ascribed to the territory in which production takes place. However, profits earned by foreign companies are credited to the parent company.

Why is National Income Important?

1. Setting Economic Policy- National Income indicates the status of the economy and can give a clear picture of the countries economic growth. National Income statistics can help economist in formulating economic policies for economic development.
2. Inflation and Deflationary Gaps- For timely anti-inflationary and deflationary policies, we need aggregate data of national income. If expenditure increases from the total output, it shows inflammatory gaps and vice versa.
3. Budget Preparation- Budget of the country is highly dependent on the net national income and its concepts. The Government formulates the yearly budget with the help of national income statistics in order to avoid any cynical policies.
4. Standard of Living- National income data assists the government in comparing the standard of living amongst countries and people living in the same country at different time.
5. Defence and Development: National income estimates help us to bifurcate the national product between defence and development purposes of the country. From such figures, we can easily know, how much can be set aside for the defence budget.

INFLATION:

inflation is that condition where the total money supply is more than its demand and as a result of this, the value of money starts decreasing and the normal price level begin to rise.

TYPES OF INFLATIONS

Some of the main types of inflation can be discussed as follows:

(1) Currency Inflation: Inflation caused due to the excess. supply of money in relation to the available output of goods and services is known as currency inflation. This type of inflation occurs generally when Central Bank issued excess paper currency. It affects the prices of goods directly.

(2) Credit Inflation: When commercial banks of a country provide credit rapidly then it will increase the demand for goods and services and lead to increase in the price level. This type of inflation is known as credit inflation. Such type of inflation originates when government encourages an expansion of credit.

(3) Cost-Push Inflation: The cost-push inflation is caused by an increase in production costs. It is generally caused by two factors (a) an increase in wages, and (b) an increase in the profit-margins the entrepreneurs. When cost inflation arises in one particular industry, it soon spreads to the other factors of economy as well. The reason being that the various sectors of the economy are closely linked with each other.

(4) Demand-Pull Inflation: Demand-pull inflation is caused by an increase in the aggregate effective demand for goods and services in the economy. The effective demand increases due to increased money incomes of the factors of production. The demand inflation can be tackled by the government by curtailing unnecessary demand through the adoption of monetary and fiscal measures.

(5) Full and Partial Inflation: Rise in the price-level before the full employment level is known as partial inflation because an expansion of money supply before the point of full employment will lead to increase output and employment, not price level. The price level will increase only if the expansion of money supply is continued even beyond the point of full employment. Thus, the rise in the price level after the point of full employment is known as full inflation.

(6) Deficit Induced Inflation: When deficit in the budget of the government is fulfilled by resorting to the printing new current, then it led to increase in price level. This type of inflation is termed as deficit induced inflation.

(7) Devaluation Induced Inflation: Devaluation of money promote exports of the country. Due to increase in exports, supply of goods in the country get reduced and thus the price-level rises. This condition is known as devaluation induced inflation.

(8) Open and Suppressed Inflation: When government does not attempt to check inflation and it becomes out of control, it is known as open inflation. But when government took special measures to check the rising trend in price level by price control and rationing, it is termed as suppressed inflation.

(9) Production Induced Inflation: When the price-level rises due to decrease in production, it is termed as production induced inflation.

EFFECTS OF INFLATION

(1) Effects on Producers and Businessmen: Inflation has favourable effect on producers and businessmen. It is a boon for entrepreneurs as they experience wind-fall gains as the prices of their stock suddenly go up. This would lead to optimism among the businessmen to invest more and get more profit. This increase the output and employment in the economy. During inflation, the monetary income of public rises and consequently the demand rises but the amount of production still remains low and goods are sold at higher prices. Thus, producers get more profits. But a state of hyper-inflation creates a lot of uncertainty in the economy which is harmful to production.

(2) Effects on Wage and Salary Earners: Wages do not rise as much as the rise in prices during the inflation. Wage earners suffer during the inflation. Wage rise lags behind the price rise. Trade unions bargain for higher wages for the workers whereas the salaried people are not organised hence they suffer much during inflation. The wage rise is not corresponding to a rise in the prices.

(3) Effect on Consumers: Every individual in the society is consumer. Fixed income group consumers are the worst sufferers during inflation because their purchasing power goes down with the increase in price level in the economy. Consumers, whose income increase during inflation are not effected because of increase in price level.

(4) Effects on Distribution: In an inflationary situation prices of all factors do not rise in the same proportion. Businessmen gain more profits than the fixed income groups. Black marketeers and traders gain windfall profits. Changes in the value of money or price rise result in the redistribution of wealth. As a result of inflation, the redistribution of wealth puts more burden on groups which are unable to bear it.

(5) Effects on Investors: Investors are generally of two types: (a) Investors in equities (shares), and (b) Investors in fixed interest-yielding bonds and debentures. Inflation bestows favours on the former and is rather harsh on the latter. Dividends on equities increase with increase in prices and corporate earnings, and as such the investors in equities are favourably affected. Income from bonds and debentures, however, remains fixed and as such investors in them are adversely affected.

(6) Effects on Debtors and Creditors: During inflation, debtors are generally the gainers while the creditors are the losers. The debtors while repaying the debts return less purchasing power to the creditors than what they had actually borrowed. Since the creditors receive less in real terms, they are the losers during inflation.

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(7) Bad Effects on Savings. Since hyper-inflation results in serious depreciation of the value of money, it discourages savings the part of the public. With reduced savings, the process of capital accumulation suffers a serious setback.

(8) Reduction of Faith in Money: Due to inflation, values money decreases which consequently reduces the faith of public in money. Consumers starts hoarding of essential goods rather than money.

(9) Development of Banking: Inflationary situation give rise to the development of trade and industrial activities. This increases the demand of money and credit and also develops banking and insurance activities.

(10) Increase in Employment Opportunities: More and more employment opportunities are generated during inflation because the producers expand the size of business and trade in exper. tation of huge profits. Thus, slight inflation is best for employment avenues.

(11) Break Down of Public Moral: During inflation there becomes great break down of public morals. It gives stimulus to speculative activity on account of the uncertainty generated by a continually rising

price-level. Producers make serious deterioration in the quality of products and follow other anti-social tactice to boost up their profits. Corruption, Adulteration and hoarding of goods pollutes the social environment.

Money Supply

Definition of Money

According to Crowther,

"Anything that is generally acceptable as a means of exchange and which at the same time acts as a measure and store of value."

Anything is Money, which is generally acceptable as a medium of exchange, and at the same time it must act as a measure and a store of value. Anything implies a thing to be used as money need not be necessarily composed of any precious metal. The only necessary condition is that, it should be universally accepted by people as a medium of exchange.

Functions of Money

1. Primary Functions:

The two primary functions of money are to act as a medium of exchange and as a unit of value.

(i) Money as a Medium of Exchange:

This is the primary function of money because it is out of this function that its other functions developed. By serving as a medium of exchange, money removes the need for double coincidence of wants and the inconveniences and difficulties associated with barter. The introduction of money as a medium of exchange decomposes the single transaction of barter into separate transactions of sale and purchase thereby eliminating the double coincidence of wants.

(ii) Money as Unit of Value:

The second primary function of money is to act as a unit of value. Under barter one would have to resort to some standard of measurement, such as a length of string or a piece of wood. Since one would have to use a standard to measure the length or height of any object, it is only sensible that one particular standard should be accepted as the standard. Money is the standard for measuring value just as the yard or metre is the standard for measuring length.

2. Secondary Functions:

Money performs three secondary functions: as a standard of deferred payments, as a store of value, and as a transfer of value. They are discussed below. etc., depending on the nature of the

(i) Money as a Standard of Deferred Payments:

The third function of money is that it acts as a standard of deferred or postponed payments. All debts are taken in money. It was easy under barter to take loans in goats or grains but difficult to make repayments in such perishable articles in the future. Money has simplified both the taking and repayment of loans because the unit of account is durable.

(ii) Money as a Store of Value:

Money as a store of value is meant to meet unforeseen emergencies and to pay debts. Newlyn calls this the asset function of money. "Money is not, of course, the only store of value. This function can be served by any valuable asset. One can store value for the future by holding short-term promissory notes, bonds, mortgages, preferred stocks, household furniture, houses, land, or any other kind of valuable goods. The principal advantages of these other assets as a store of value are that they, unlike money, ordinarily yield an income in the form of interest, profits, rent or usefulness and they sometimes rise in value in terms of money.

(iii)Money as a Transfer of Value:

Since money is a generally acceptable means of payment and acts as a store of value, it keeps on transferring values from person to person and place to place. A person who holds money in cash or assets can transfer that to any other person. Moreover, he can sell his assets at Delhi and purchase fresh assets at Bangalore. Thus money facilitates transfer of value between persons and places.

Contingent Functions:

(I) Money as the Most Liquid of all Liquid Assets:

(ii) Basis of the Credit System:

(iii)Equaliser of Marginal Utilities and Productivities:

(iv) Measurement of National Income:

(v) Distribution of National Income:

Concept of Money Supply and its Measurement:

Money supply plays a crucial role in the determination of price level and interest rate. In economic analysis it is generally presumed that money supply is determined by the policy of Central Bank of a country and the Government.

Importance of Money Supply

Growth of money supply is an important factor not only for acceleration of the process of economic development but also for the achievement of price stability in the economy. There must be controlled expansion of money supply if the objective of development with stability is to be achieved. A healthy growth of an economy requires that there should be neither inflation nor deflation. Inflation is the greatest headache of a developing economy.

A mild inflation arising out of the creation of money by deficit financing may stimulate investment by raising profit expectations and extracting forced savings. But a runaway inflation is highly detrimental to economic growth. The developing economies have to face the problem of inadequacy of resources in initial stages of development and it can make up this deficiency by deficit financing.

Four Measures of Money Supply:

Several definitions of money supply have been given and therefore various measures of money supply based on them have been estimated. First, different components of money supply have been distinguished on the basis of the different functions that money performs.

These four concepts of measures of money supply are explained below.

1. Money Supply M1 or Narrow Money:

This is the narrow measure of money supply and is composed of the following items:

$M1 = C + DD + OD$

Where

C = Currency with the public

DD = Demand deposits with the public in the Commercial and Cooperative Banks.

OD = Other deposits held by the public with Reserve Bank of India.

The money supply is the most liquid measure of money supply as the money included in it can be easily used as a medium of exchange, that is, as a means of making payments for transactions.

Currency with the public (C) in the above measure of money supply consists of the followings:

(I) Notes in circulation.

(ii) Circulation of rupee coins as well as small coins
(iii) Cash reserves on hand with all banks.

(iii) Cash reserves on hand with all banks.

Note that in measuring demand deposits with the public in the banks (i.e., DD), inter-bank deposits, that is, deposits held by a bank in other banks are excluded from this measure.

In the other deposits with Reserve Bank of India (i.e., OD) deposits held by the Central and State Governments and a few others such as RBI Employees Pension and Provident Funds are excluded.

However, these other deposits of Reserve Bank of India include the following items:

(I) Deposits of Institutions such UTI, IDBI, IFCI, NABARD etc.

(ii) Demand deposits of foreign Central Banks and Foreign Governments.
(iii) Demand deposits of IMF and World Bank.

It may be noted that other deposits of Reserve Bank of India constitute a very small proportion (less than one per cent).

2. Money Supply M2:

M2 is a broader concept of money supply in India than M1. In addition to the three items of M1, the concept of money supply M2 includes savings deposits with the post office savings banks. Thus,

M2 – M1 + Savings deposits with the post office savings banks.

The reason why money supply M2 has been distinguished from M1 is that saving deposits with post office savings banks are not as liquid as demand deposits with Commercial and Co-operative Banks as they are not chequable accounts. However, saving deposits with post offices are more liquid than time deposits with the banks.

3. Money Supply M3 or Broad Money:

M3 is a broad concept of money supply. In addition to the items of money supply included in measure M1, in money supply M^ time deposits with the banks are also included. Thus

M3 = M1 + Time Deposits with the banks.

It is generally thought that time deposits serve as store of value and represent savings of the people and are not liquid as they cannot be withdrawn through drawing cheque on them. However, since loans from the banks can be easily obtained against these time deposits, they can be used if found necessary for transaction purposes in this way. Further, they can be withdrawn at any time by forgoing some

interest earned on them.

4. Money Supply M4:

The measure M4 of money supply includes not only all the items of M3 described above but also the total deposits with the post office savings organisation. However, this excludes contributions made by the public to the national saving certificates.
Thus, M4 = M3 + Total Deposits with Post Office Savings Organization.

Factors influencing Money Supply

(OR)

Money Supply Controlling Measures by RBI

1. Bank rate: It is the interest rate at which RBI lends money (loans) to Banks. If it wants to decrease Money supply, it will increase bank rate. Therefore, banks in turn will increase interest rates on loans given by it to customers.
2. Cash Reserve Ratio (CRR): It is percentage of total deposits which bank has to maintain as cash or as deposits with RBI.
3. Statutory Liquidity Ratio (SLR): It is percentage of total deposits which bank has to maintain as cash or gold with itself. The remaining deposits it can disburse as loans to customers.
4. Open Market Operation: RBI purchases or sells government securities (Treasury Bills and Govt Bonds) from banks at an interest rate called as Repo Rate. If RBI wants to decrease Money Supply, then it will increase the Repo Rate.

Business cycle

Business cycles are characterized by boom in one period and collapse in the subsequent period in the economic activities of a country.

These fluctuations in the economic activities are termed as phases of business cycles.
The fluctuations are compared with ebb and flow. The upward and downward fluctuations in the cumulative economic magnitudes of a country show variations in different economic activities in terms of production, investment, employment, credits, prices, and wages. Such changes represent different phases of business cycles.

The different phases of business cycles are shown in Figure-1:

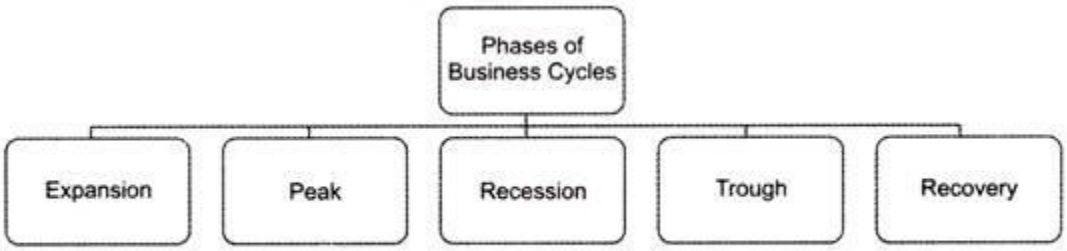

Figure-1:Different Phases of a Business Cycle

There are basically two important phases in a business cycle that are prosperity and depression. The other phases that are expansion, peak, trough and recovery are intermediary phases.

Figure-2 shows the graphical representation of different phases of a business cycle:

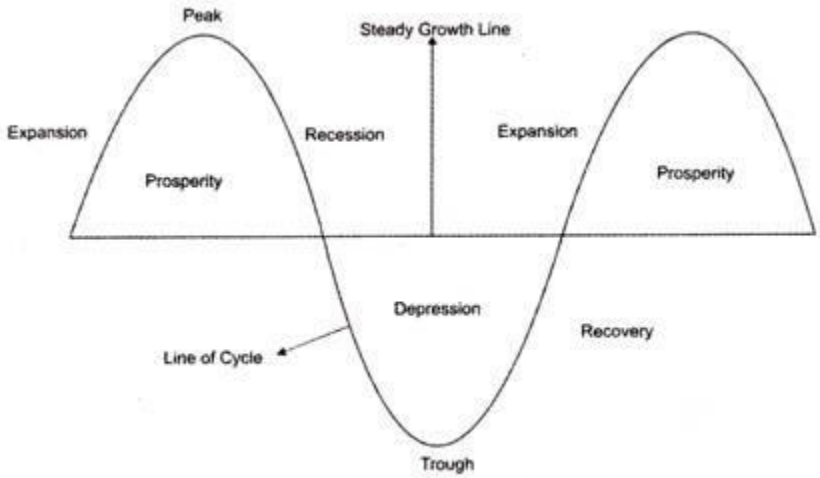

Figure-2: Representation of Phases of a Business Cycle

As shown in Figure-2, the steady growth line represents the growth of economy when there are no business cycles. On the other hand, the line of cycle shows the business cycles that move up and down the steady growth line. The different phases of a business cycle (as shown in Figure-2) are explained below.

1. Expansion:

The line of cycle that moves above the steady growth line represents the expansion phase of a business cycle. In the expansion phase, there is an increase in various economic factors, such as production, employment, output, wages, profits, demand and supply of products, and sales.

In addition, in the expansion phase, the prices of factor of production and output increases simultaneously. In this phase, debtors are generally in good financial condition to repay their debts; therefore, creditors lend money at higher interest rates. This leads to an increase in the flow of money.

In expansion phase, due to increase in investment opportunities, idle funds of organizations or individuals are utilized for various investment purposes. Therefore, in such a case, the cash inflow and outflow of businesses are equal. This expansion continues till the economic conditions are favorable.

2. Peak:

The growth in the expansion phase eventually slows down and reaches to its peak. This phase is known as peak phase. In other words, peak phase refers to the phase in which the increase in growth rate of business cycle achieves its maximum limit. In peak phase, the economic factors, such as production, profit, sales, and employment, are higher, but do not increase further. In peak phase, there is a gradual decrease in the demand of various products due to increase in the prices of input.

The increase in the prices of input leads to an increase in the prices of final products, while the income of individuals remains constant. This also leads consumers to restructure their monthly budget. As a result, the demand for products, such as jewellery, homes, automobiles, refrigerators and other durables, starts falling.

3. Recession:

As discussed earlier, in peak phase, there is a gradual decrease in the demand of various products due to increase in the prices of input. When the decline in the demand of products becomes rapid and steady, the recession phase takes place.

In recession phase, all the economic factors, such as production, prices, saving and investment, starts decreasing. Generally, producers are unaware of decrease in the demand of products and they continue to produce goods and services. In such a case, the supply of products exceeds the demand.

Over the time, producers realize the surplus of supply when the cost of manufacturing of a product is more than profit generated. This condition firstly experienced by few industries and slowly spread to all industries.

This situation is firstly considered as a small fluctuation in the market, but as the problem exists for a longer duration, producers start noticing it. Consequently, producers avoid any type of further investment in factor of production, such as labor, machinery, and furniture. This leads to the reduction in the prices of factor, which results in the decline of demand of inputs as well as output.

4. Trough:

During the trough phase, the economic activities of a country decline below the normal level. In this phase, the growth rate of an economy becomes negative. In addition, in trough phase, there is a rapid decline in national income and expenditure.

In this phase, it becomes difficult for debtors to pay off their debts. As a result, the rate of interest decreases; therefore, banks do not prefer to lend money. Consequently, banks face the situation of increase in their cash balances.

Apart from this, the level of economic output of a country becomes low and unemployment becomes high. In addition, in trough phase, investors do not invest in stock markets. In trough phase, many weak organizations leave industries or rather dissolve. At this point, an economy reaches to the lowest level of shrinking.

5. Recovery:

As discussed above, in trough phase, an economy reaches to the lowest level of shrinking. This lowest level is the limit to which an economy shrinks. Once the economy touches the lowest level, it happens to be the end of negativism and beginning of positivism.

This leads to reversal of the process of business cycle. As a result, individuals and organizations start developing a positive attitude toward the various economic factors, such as investment, employment, and production. This process of reversal starts from the labor market.

Consequently, organizations discontinue laying off individuals and start hiring but in limited number. At this stage, wages provided by organizations to individuals is less as compared to their skills and abilities. This marks the beginning of the recovery phase.

In recovery phase, consumers increase their rate of consumption, as they assume that there would be no further reduction in the prices of products. As a result, the demand for consumer products increases.

In addition in recovery phase, bankers start utilizing their accumulated cash balances by declining the lending rate and increasing investment in various securities and bonds. Similarly, adopting a positive approach other private investors also start investing in the stock market As a result, security prices increase and rate of interest decreases.

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