SYLLABUS

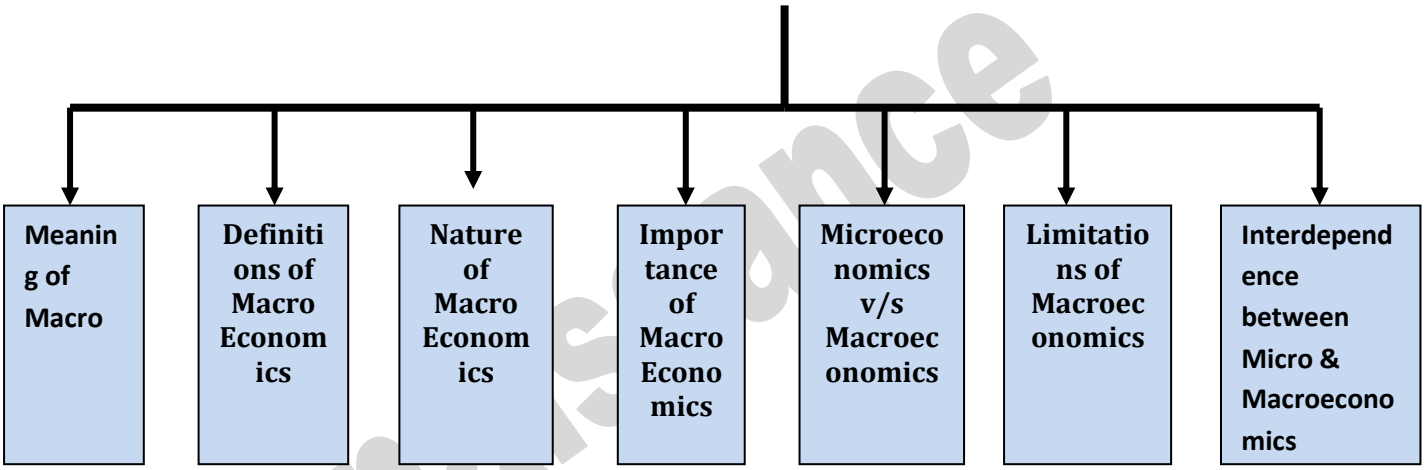
B.Com I YEAR (Hons.)

Subject – MACRO ECONOMICS

UNIT – I	Macro economics – concept, nature, importance, limitations, difference between micro and macro economics, significance.
UNIT – II	National Income – Meaning, definition, concept, Methods for measuring national income in India and its problem, GDP, GNP and factor cost.
UNIT – III	Theories of Wages, Rent Interest and employment.
UNIT – IV	Monetary Theories – Quantity theory of Money, Modern theory of Money, Keynes's Theory of Money and Price.
UNIT – V	Recent industrial Policy, Industrial Growth in Phase-II and III Disinvestments, Foreign Direct Investment, Regulating Bodies, Finance Commissions NITI Ayog, Roles and Responsibilities.

UNIT-I

OVERVIEW OF UNIT 1



Macro

The term macro in English has its origin in the Greek term "macros" which means large. In the context of 'Macroeconomics' means economics of the large like economy as a whole. Macro economics deals primarily with the analysis of the relationship between broad economic aggregates like national income, level of total employment, aggregate consumption, total investment, general price level, balance of payment, the quantity of money etc. Macroeconomics is also known as the theory of income & employment as it is concerned with the problems of on employment, economic fluctuation, inflation or deflation international trade and economic growth.

Definitions of Macro Economics

1) **According to culberton's-**"Macro Economics is the theory of income, employment, price and money."
2) **Accordingly to K.E. Boulding –**"Macro economics deals not with individuals quantities as such but with aggregate income, but with national income, not with individuals price but with price levels, not with individuals output but with national output."
3) **According to Edward Shapiro – "**Macro economics attempts to answer the truly 'big' question of economic life – full employment or unemployment, capacity or under capacity production."

Nature of Macro Economics

1) Macro economics studies the concept of national income and its different elements and the method of measurement.
2) It studies problems relating to employment and unemployment. It studies different factors determining the level of employment.
3) Determination of general price level is also studied under macro economics. Problems relating to inflation and deflation are an important component of macro economics.
4) Change in demand and supply of money have an important impact on the level of employment. Macroeconomics studies function of money & theories relating to it.

5) Problems relating to economic growth is another important component of macro economics like plans for overall increase in national income, output, employment are framed so the economic development of economy as a whole.
6) It also studies issues relating to international trade, export, import exchange rate and balance of payments are the principal issue in this context.

Importance of Macro Economics

1) Macro economics is helpful for getting us an idea of the functioning of an economic system.It is very essential for a proper and adequate knowledge of behavior pattern of the aggregative variable, as the description of a large and complex economic system.
2) It says about the study of national income and social accounts. It is the study of national income which enables us to know that three fourth of the world is living in object poverty without proper national difficult to formulate proper economic policies.
3) Macroeconomic approaches are of almost importance to analyze and understand the effect of inflation and deflation different sections of society are affected differently as a result of charges in the value of money.
4) Economic fluctuation is a characteristics features of the capitalist form of economy. The economic booms and depression in the level of income and employment follow one another in cyclical fashion.
5) The study of macro economics is essential for the proper understanding of Micro economics. No micro economics law could be framed without a prior study of the aggregate.

Limitations of Macroeconomics

Following are the main limitations of macro economics:-

1.***Excessive Thinking***:-Macro economics suffers from the limitations that it always excessively thinks in the terms of aggregates and presumes circumstances to be normal and homogeneous but aggregates may result into heterogeneous character.As Prof.Boulding points:

(a) Six apples+Seven apples=Thirteen apples which constitutes a meaningful aggregate.

(b) Six apples+Seven oranges=Thirteen fruits, whichconstitutes a fairly meaningful aggregates.

(c) Six apples+Seven shoes constitutes a meaningless aggregates.

2.***Difference in individual items***:-Sometimes while aggregating the variables, the basic characteristics of the data or the variables is left untouched because there are important differences in the items.Sometimes,the features of individual components may not be true to the aggregate so macro suffers from the danger of excessive generalization.

3.***Unable to influnce society equally***:-An aggregative tendency may not influence the entire sectors of the economy in the same way.For example,a general rise in price as inflation may not similar effects on different sectors of the economy.

4.***Contradictory***:-In aggregates,sometime the contradictory individual aspects are neutralized as in case of the estimation,prices in agriculture fall,of industrial products rise which have different affects on individual factors but as an aggregate,there may not be any effect at all.Thus,macro aggregate results may be misleading.

5.***Role of less aggregative analysis***:-Aggregates itself suffer from certain serious problems due to

statistical techniques.The recently introduced computational procedures and programming techniques have reduced the role of aggregative analysis.

Microeconomics V/s Macroeconomics

S.No.	Points	Microeconomics	Macroeconomics
1	**Study**	It studies individual unit	It studies aggregate or group of individual units.
2	**Assumption**	At micro level full employment is assumed which is never found in an economy. Hence this is an unreal assumption	At macro level, full employment is not assumed. Instead equilibrium employment is assumed which is a real assumption.
3	**Subject Matter**	We study demand supply, consumer behavior production, types of market, theory of cost & revenue etc.	We study national income, theory of wage, interest & employment, Theory of money, theory of international trade etc.
4	**Applicability**	It is useful in analysis of an individual unit like cost of an individual good, demand of a single good, price of a single good.	It is useful in analysis of aggregate units such as aggregate demand, aggregate prices or inflation-deflation, aggregate or national income etc.
5	**Usefulness to Govt.**	It is less useful to Govt. in formulating economic policies.	It is more useful to Govt. in formulating economic policies.

INTERDEPENDENCE BETWEEN MICRO AND MACRO ECONOMICS

Micro and macro economics are the two sides of the same coin.There is close interdependence between the two.We cannot analyse the individual behaviour without the assuming to aggregate and likewise aggregate cannot be effective unless individual variables are kept under consideration.

Micro economics contributes towards macro economics in a number of ways as:-

1.***Study of economic fluctuations***:-Business cycles which are universal in every sector,are influenced by both individuals and aggregate factors.Unless we review both micro and aggregate variables,we cannot provide an appropriate solution to business cycles.Therefore to study trade cycles micro and macro economics contribute significantly.

2.***Basis of economic laws***:-Micro economics acts as a basis macro economics because macro is an aggregate of individual units.The success and accuracy of aggregates depends on the individual units.Similarly,macro theories are used by micro economists.

3.***Role in international trade***:-In international trade both the approaches are used.Economists have developed their theories on the basis of micro economics presuming full employment of resources and mobility of factors of production.However,modern economists looked on the economy as a whole and recognized the role of aggregates.So generalequilibrium is nothing but an extension of equilibrium of micro economics.

4.***Balance of payments and interdependence***:-Balance of payments problem is also a burning problem for economy. An individual sector may have favorable balance of payments whereas other sectors,unfavourable balance of payments.On the other hand, the overall position of an economy is to be assessed from aggregate position of all sectors.

5.***Theory of tariffs***:-Many economists have propounded that modern macro approaches of imposing tariffs with the intention of correcting balance of payments position is virtually based on the theory of monopoly.So micro economics has influenced the modern macro economics theory.

UNIT-II
DEFINITIONS OF NATIONAL INCOME

National income is the aggregate money value of all incomes earned by individuals and enterprises. National income may also be defined as the money measure of the net aggregates of all commodities and services accruing to the inhabitants of an economy during a year.

Thus, the concept national income has different meanings. It may be described as the **'national product' or 'national income' or 'national dividend'.**

Marshall's Definition

"The labor and capital of a country acting on its natural resources produce annually a certain net aggregate of commodities, material and immaterial, including services of all kinds. This is the true net annual income or revenue of the country or national dividend."

The main defects of Marshall's definition are as under

1. A country produces a number of commodities and services whose correct evolution becomes difficult. Thus ,we cannot get an accurate estimate of the national income of a country.
2. There are some commodities which are used more than once. Thus, there is a possibility that the product of such commodities may be counted twice. This will give a wrong estimate of the national income.
3. There are some commodities which do not appear in the market and they are consumed directly by the producers. This normally happens in the case of agricultural commodities. Marshall's definition fails to provide a measure for such items.

Pigou's Definition

"National income is that part of the objective income of the community, including of course income derived from abroad, which can be measured in money."

The limitations of this definition are as following:

1. While calculating national income, Pigou includes only those goods and services which are exchanged for money. Thus, the services which a person renders to himself ,and those which he performs for the sake of his family or friends should not be regarded as part of national dividend. Thus, the definition does not provide a correct picture of the national income of a country.
2. This definition is applicable only to developed countries of the world where barter system is not found. It cannot be used to calculate of the national income of the backward and less developed countries where the barter system still occupies an important place in the economy.

Modern Definition:

National income is a money measure of the value of all goods and services produced in a year by a nation. The National Sample Survey defines national income as "money measures of the net aggregates of all commodities and services accruing to the inhabitants of a community during a specific period." According to the National Income Committee of India" A national income estimate measures the volume of commodities and services turned out- during a given period, counted with duplication."

Profs Lipsey and Chrystral say that national income, in general, is "the value of the nation's total output and the value of the income generated by the production of that output."

According to Froyen; "National income is the sum of all factor earnings from current production of goods and services. Factor earnings are incomes of factors of production." In the same vein, Gardner Ackley

defines "National income is the sum of all (a) wages, salaries, commissions, bonuses and other form of incomes, (b) net income from rentals and royalties, (c) interest, (d) profit."

The concept 'national income' has been interpreted by economists usually in three ways. These are:
(i) National product,
(ii) National expenditure, and
(iii) National dividend. It is to be kept in mind that these are not different concepts.
As these three imply the same thing, these will be used interchangeably in the following pages. Using these three concepts we will show that national income is "the total flow of wealth produced, distributed and consumed."

II. National Income Accounts:

Economic growth of any country is measured by its growth of national and per capita incomes. In other words, national income is the yardstick of measuring the growth performance of any economy. Increase in national income is tantamount to economic growth. In view of this, every country prepares statistics on national income as well as its various facets.
The method through which national income statistics is prepared and compiled is called national income accounting. Thus, national income accounts can be defined as a set of systematic statements which reflect the aggregate money value of all goods and services produced in different sectors of an economy (primary, secondary and tertiary sectors) together with the records of distribution of factor incomes among different groups and final expenditures (either gross or net) of the economy.
In national income accounts, all types of transactions conducted, say, in a year, are recorded. These are systematically classified and entered into national income accounts by the statisticians. Thus, national income accounts reflect how millions of transactions that are conducted are interrelated. Above all, by reading these accounts one gains clear knowledge about the working of the economy
Economists, planners, government, businessmen, international agencies (IMF, World Bank, etc.,) use national income data and analyse them for variety of purposes. Firstly, while formulating national economic plans and policies, national income statistics are taken into account. Secondly, national income data help in measuring changes in the standard of living over time. Level of development is also measured by using national income figures. Such figures are also of importance for making international comparisons. There are other uses too. Above all, national income figures enable us to compare standards of living of different countries.

III. Circular Flow of Income:

The national income and national product accounts of a country describe the economic performance or production performance of a country. Various measures of the nation's income and product exist the most frequently cited summary measures of an economy's performance is the gross national product (GNP) or gross domestic product (GDP). However, there is a subtle distinction between GNP and GDP since both move closely together. Anyway, the distinction between the two will be presented in due time.
The national product is the value of final goods and services produced in a country. Since all the value produced must belong to someone in the form of a claim on the value, national product is equal to national income. Each transaction in an economy involves a buyer and a seller. Households spend money for buying goods and services produced.
Thus, from the buyers' side comes the flow of money demand. In other words, we have expenditure- side transaction. On the sellers' side, money payments go to factor owners in the form of rent, wages, etc. Firms spend money for buying input services. Thus, we have income-side transaction from the seller's side. These two are obverse and reverse of the same coin. This is called circular flow of income and expenditure.
Graphically, we can present the circular flow of income. We are assuming that we are living in a market-oriented economy or a capitalistic economy where there are two decision-makers: firms and households.

Firms make production decision. Households are consuming units which absorb output produced in the business firms. Again, firms coordinate and employ different factor units which are owned by households.
In Fig. 2.1, goods and services flow from firms to households via the product market in return for the money payment for these goods and services by firms. Arrowhead indicates such goods flow and money flow between firms and households. It is clear that the flow of monetary payment on goods and services by buyers must be identical to the money value of all goods and services that firms produce and sell to households.

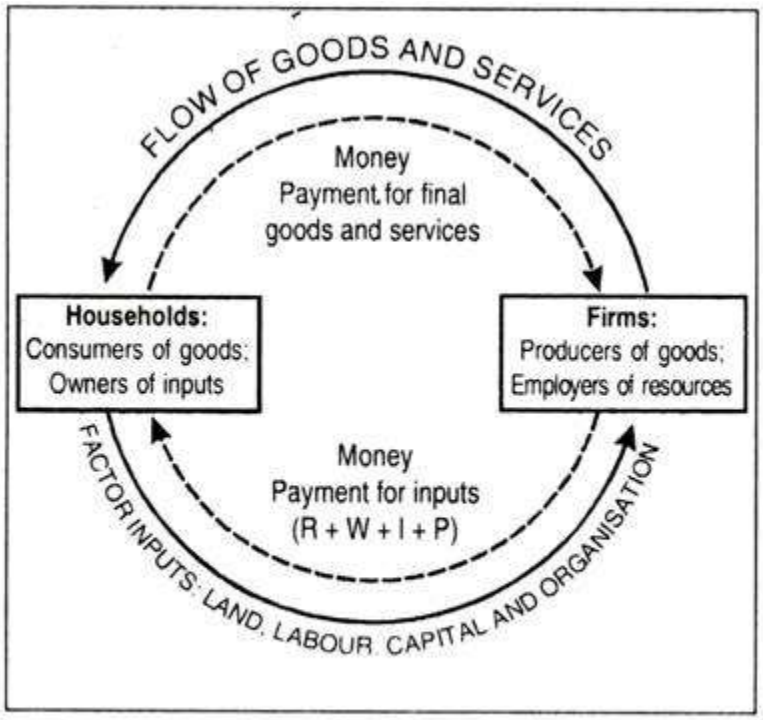


Fig. 2.1: Circular Flow of Income and Expenditure in a Two-sector Economy

But wherefrom do the households get money? The diagram answers this question. Households supply factor inputs to firms via the factor markets. In return, households receive money from firms in the form of rent, wages, etc. These income payments to households on hiring input services must be identical to the firms' income. This is the essence of the circular flow of income in a two-sector economy where there is no governmental activity and the economy is a closed one. Adding these, we have

$Y = C + I$

where Y stands for national income, C for private consumption spending, and 1 for private investment spending.
In a three-sector (closed) economy, the government intervenes. It spends not only for the benefits of the general people and firms but also imposes taxes on them to finance its spending. If we add government activities (levying of taxes, T and incurring expenditures, G), we have

$Y = C + I + G$

The relationships between households, firms and government have been presented in a circular flow diagram (Fig. 2.2).

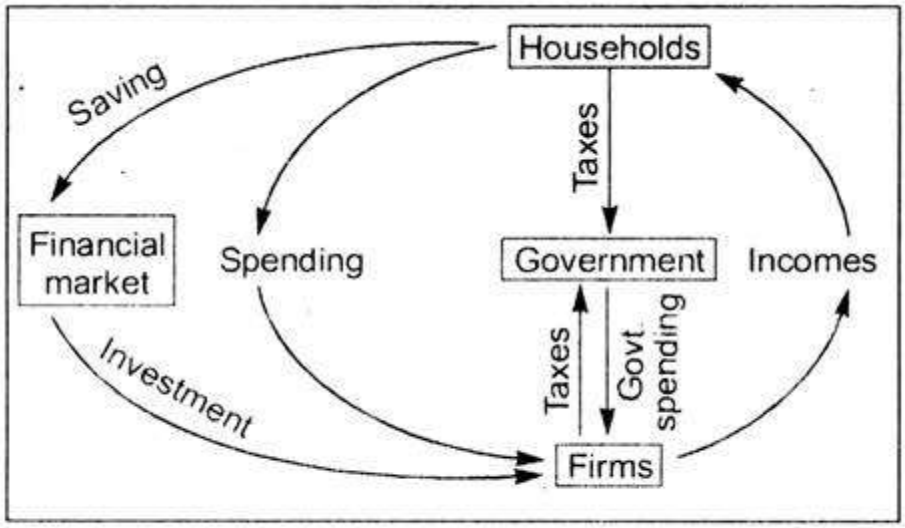


Fig. 2.2: Circular Flow of Income and Expenditure in a Three-sector Economy (Closed Economy)

Households receive money income from firms and government by selling input services. Part of this income is used to pay taxes to the government. Government receives taxes from both households and firms. Government spends by utilising its tax revenues. Households save in the financial market. These two— saving and taxes— constitute leakages in the circular flow. It is, thus, clear from Fig. 2.2 that the circular flow of money income depends upon consumption spending of households, investment spending of business firm and government's plans to tax and spend.

A four-sector economy is called an open economy in the sense that the country gets money by sending its goods outside i.e., exports (X), and spends money by buying foreign-made goods and services i.e., imports (M). In other words, in an open economy, there occurs a trading relationship between nations. Adding (X-M) in the above equation, we get

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

The circular flow model in a four-sector open economy has been shown in Fig. 2.3.

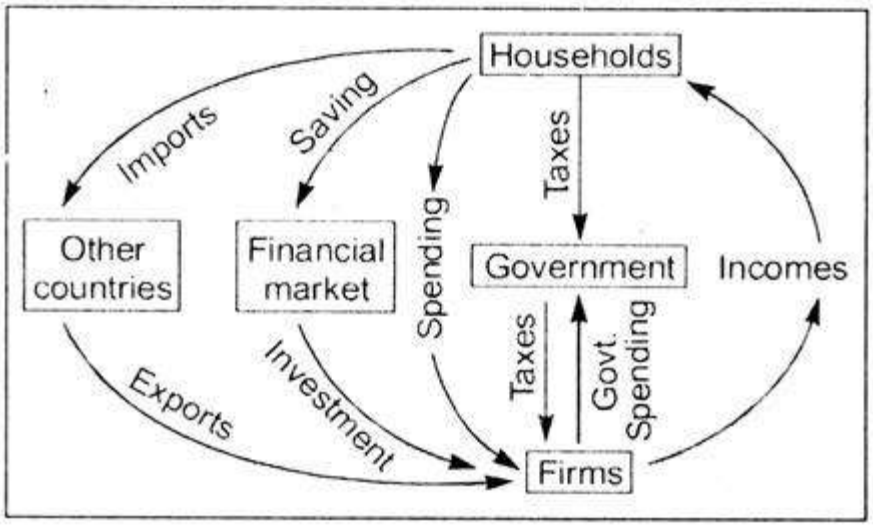


Fig. 2.3: Circular Flow of Income and Spending in an Open Economy

The only difference in the circular flow of income between a closed economy and an open economy is that, in a four-sector economy, households purchase foreign-made goods and services (i.e., imports). Likewise, people of other countries purchase goods and services not produced domestically (i.e., exports). Imports constitute leakage from the circular flow while exports constitute injection in the circular flow. For simplicity's sake, we have not shown in the diagram that firms and governments also sell export goods and purchase import goods.

Note that (I + G + X) constitute 'injections' into the circular flow and (S + T + M) constitute 'leakages' from circular flow. Injections increase national income while withdrawal or leakages reduce national income.

The national product or national income measures the overall economic performance of a nation. To measure the national product, we add up the value of all final goods and services produced in a country in a year. Thus, we focus on firms or sellers which receive payment for the production. This is the product method of calculating national income.

Characteristics of National Income –

1) National income is estimated in monetary terms. This may be expressed at current prices or some base year prices.
2) Only the value of final goods and services are taken into account for measuring national income.
3) National income is always expressed with respect to a given time period. Hence, it is a 'flow' concept.
4) All types of 'pure exchange transactions' are excluded from national income accounting. In case of pure exchange transactions, nothing new is produced in the current year. For instance, second-hand sales, purchase and sale of securities (shares and debentures), transfer payments (such as unemployment dole, pension payments) etc. are regarded as pure exchange transactions. All such transactions are not concerned with current year production. So, they are excluded from national income estimates.
5) National income is not simply the sum of all personal incomes in a country.

Difference between Domestic Income and National Income –

S.No.	National Income	Domestic Income
1	It includes income earned by the residents only.	It includes income earned by the residents as well as non-residents.
2	It consists of income earned both within and outside the domestic territory of a country.	It consists of income earned only within the domestic territory.
3	It is an economic concept.	It is a geographic concept.
4	It includes net factor income from aborad.	It does not include net factor income from abroad.
5	National income = Domestic income + Net factor income from aborad.	Domestic income = National income – Net factor income from abroad.

Net factor income from abroad is the difference between the income received by the residents from abroad for rendering factorservices (e.g., banking and insurance services, other financial services, engineering services, etc.) and the income paid for the factor services rendered by the non-residents in the domestic territory of a country.

CONCEPTS OF NATIONAL INCOME

1) Gross Domestic Product (at market prices):
The gross domestic product at market price (GDPmp) indicates the value of all final goods and services produced within the domestic territory of a country during any particular year. These goods and services are valued at the prevailing market prices of those goods and services.

2) Net domestic product (at market prices):
The Net domestic product at market prices (NDPmp) refers to the value of all final goods and services at the prevailing market prices within the domestic territory of a country during any particular year after making allowance for the consumption of fixed capital or depreciation allowance.

NDPmp = GDPmp – Depreciation allowance

3) Gross National Product (at market price) :
The Gross National Product at market prices (GNPmp) refers to the aggregate market value of all final goods and services produced by the residents of a country during any particular year.

4) Net National Product (at market prices):
The net national product at market prices (NNPmp) refers to the market value of all final goods and services produced by the residents of a country after allowing for the depreciation of fixed capital during any particular year. Thus, if we deduct the consumption of fixed capital or the depreciation allowance from the GNPmp, we get NNPmp.

NNPmp = GNPmp – Depreciation allowance

5) Gross Domestics Product (at factor cost):
The Gross Domestic Product at factor cost (GDPfc) refers to the estimation of GDP in terms of the aggregate earnings of factors of production.

6) Gross National Product (af factor cost):

The Gross National Product at factor cost (GNPfc) refers to the GNP in terms of factor incomes. It is the aggregate earnings received by different factors of production (i.e., wages, rent, interest and profits) supplied by the residents of a country during any particular year.

7) Net Domestic Product (at factor cost):
The net domestic product at factor cost (NDP_{fc}) estimates the NDP in terms of the aggregate factor incomes of the residents and non-residents within the domestic territory of a country during any particular year.

8) Net National Product (at factor cost):
The net national product at factor cost (NNPfc) to the value of the final goods and services produced by the residents of a country, whether operating within the domestic territory or outside it, at their factor costs. It is also termed as the National Income of a country.

9) Private Income
Central Statistical Organization defines Private Income as "the total of factor income from all sources and current transfers from the government and rest of the world accruing to private sector" or in other words the private income refers to the income from socially accepted source including retained income of corporation.

NI+ Transfer payment + Interest on public debt +Social security + Profit and Surplus of public enterprises = Private Income

10) Personal Income
Prof. Peterson defines Personal Income as "the income actually received by persons from all sources in the form of current transfer payments and factor income. In other words, Personal Income is the Total income received by the citizens of a country from all sources before direct taxes in a year.

PI = Private Income - Undistributed Corporate Profits – Corporate Taxes

11) Disposable Income
Prof. Peterson defined Disposable Income as "the income remaining with individuals after deduction of all taxes levied against their income and their property by the government."
Disposable Income refers to the income actually received by the households from all sources. The individual can dispose this income according to his wish, as it is derived after deducting direct taxes.

DI = Personal Income - Direct taxes – Miscellaneous receipt of the government.

Methods of calculating National Income

A) Value added or production or output approach

1) The output approach focuses on finding the total output of a nation by directly finding the total value of all goods and services a nation produces.

2) Problem of Double counting: Because of the complication of the multiple stages in the production of a good or service, only the final value of a good or service is included in the total output. This avoids an issue often called 'double counting', wherein the total value of a good is included several times in national output, by counting it repeatedly in several stages of production. In the example of meat production, the value of the good from the farm may be Rs10, then Rs 30 from the butchers, and then Rs 60 from the supermarket. The value that should be included in final national output should be Rs 60, not the sum of all those numbers, Rs 90. The values added at each stage of production over the previous stage are respectively Rs 10, Rs 20, and Rs 30. Their sum gives an alternative way of calculating the value of final output.

B) Income method

The income approach equates the total output of a nation to the total factor income received by residents or citizens of the nation. The main types of factor income are:

- Employee compensation/ salaries & wages (cost of fringe benefits, including unemployment, health, and retirement benefits);
- Interest received net of interest paid;
- Rental income (mainly for the use of real estate) net of expenses of landlords;
- Royalties paid for the use of intellectual property and extractable natural resources.
- Corporate Profits

C) Expenditure or Consumption method

The expenditure approach is basically an output accounting method. It focuses on finding the total output of a nation by finding the total amount of money spent. This is acceptable, because like income, the total value of all goods is equal to the total amount of money spent on goods

GDP= C+I+G+(X-M)

Where:

C = household consumption expenditures / personal consumption expenditures
I = gross private domestic investment
G = government consumption and gross investment expenditures
X = gross exports of goods and services
M = gross imports of goods and services
Note: (**X** - **M**) is often written as $\mathbf{X_N}$, which stands for "net exports"

PROBLEMS OF CALCULATING NATIONAL INCOME IN INDIA

1) **Difficulty in defining the nation** – As the world has become a global village, it is very difficult to identify the national boundaries has become difficult.
2) **Non-marketed service** – Services like love, kindness, and mercy has economic value but have no money value.
3) **Possibility of double counting** – The possibility of double counting which arises from the failure to distinguish properly between a final and intermediate product.
4) **Transfer payment** – Individual get pension, unemployment allowance and interest on public loans, but whether these should be included in national income is a difficult problem. The best way to solve the difficulty is to consider only the disposable income of individual or personal income minus all transfer payments.
5) **Capital gains or losses** – Commodity product this year is sold next year if at higher price is capital gain & at loss then capital losses e.g. other example could be selling of shares.
6) **Income earned through illegal activities** –Such as gambling or illicit extortion cannot be included in national income.
7) **Self-consumed production** – In many backward countries, substantial part of the output is not exchanged for money in market it is being either consumed directly by producer or bartered for other goods & services in the unorganized sector.
8) **Paucity of statistics** – According to the national income committee of India, the available statistics, especially for agriculture & small scale industry are extremely unreliable & incomplete.
9) **Inflation may give a false impression of growth in national income** – In a country when price rise, inflation rises even though the production falls & vice versa. It leads to mis-measurement of national income. ,

10) **Difficulties in classifying the commodities** – Coal is both household use & industrial use as well ,so is the expenditure on coal consumption , expenditure or an investment.
11) **Multiple occupations** – The production in agri-industrial, in all sectors is highly scattered and unorganized making the calculation of national income very difficult.
12) **Capital depreciation** – Depreciation is charged on profit which lowers national income. But the problem of estimating the current depreciated value of a piece of capital whose expected life is forty year is very difficult.
13) **Data problems** – There are problems of collecting reliable statistical data abort all the productive activities in the underdeveloped countries.
14) **Illiteracy** – The majority of people in the country like India are illiterate & they do not keep any accounts about the production & sole of their products.

Unit –III
THEORIES OF WAGES, INTEREST AND EMPLOYMENT

THEORY OF WAGES

Wages

1) A wage is monetary compensation (or remuneration) paid by an employer to an employee in exchange for work done. Payment may be calculated as a fixed amount for each task completed (a task wage or piece rate), or at an hourly or daily rate, or based on an easily measured quantity of work done.

2) Wages is best associated with employee compensation based on the number of hours worked multiplied by an hourly rate of pay. For example, an employee working in an assembly plant might work 40 hours during the work week. If the person's hourly rate of pay is Rs.15, the employee will receive a paycheck showing gross wages of Rs. 600 (40 x Rs. 15)

Salary

1) Salary is a fixed amount of money or compensation paid to an employee by an employer in return for work performed. Salary is commonly paid in fixed intervals, for example, monthly payments of one-twelfth of the annual salary.
2) Salary is best associated with employee compensation quoted on an annual basis. For example, the manager of the assembly plan might earn a salary of Rs.120,000 per year. If the salaried manager is paid semi-monthly (perhaps on the 15th and last day of each month), her or his paycheck will show gross salary of Rs. 5,000 for the half-month.
3) Salary is typically determined by comparing market pay rates for people performing similar work in similar industries in the same region.

Wages V/s salary

1) Wage earners are paid by the hour whereas Salary earners are paid by the year.
2) Salary earners usually receive paid time when they are not working whereas Wage earners often have to give up pay for time off, Salaries are often calculated as packages
3) Wage earners get paid more for working more than 40 hours per week, Salary workers are rarely offered overtime pay.
4) Salaries can contain all kinds of benefits and perks whereas wage doesn't.

THE SUBSISTENCE THEORY OF WAGES

1) This theory was originated with the Physiocratic School of the French economists and was developed by Adam Smith and the later economists of the classical school. The German economist Lassalle called it the Iron Law of Wages or the Brazen Law of Wages. Karl Marx made it the basis of his theory of exploitation.
2) According to this theory, wages tend to settle at the level just sufficient to maintain the worker and his family at the minimum subsistence level. If wages rise above the subsistence level, the workers are encouraged to marry and to have large families. The large supply of labour brings wages down to the subsistence level. If wages fall below this level, marriages and births are discouraged and under-nourishment increases death rate. Ultimately, labour supply is decreased, until wages rise again to the

subsistence level. It is supposed that the labour supply is infinitely elastic, that is, its supply would increase if the price (i.e. wage) offered rises.

Criticism of subsistence theory

1) This theory is almost completely outdated and has no such practical application, especially in advanced countries. The theory was based on the Malthusian Theory of Population. It is inappropriate to say that every increase in wages must inevitably be followed by an increase in birth rate. An increase in wages may be followed by a higher standard of living.
2) Ricardo was one of the exponents of the subsistence theory. He stressed the influence of custom and habit in determining what was necessary for the workers. But habits and customs change over time. Hence, the theory cannot hold good for a longer period of time, especially of a world characterised by fast changing habits. Ricardo, therefore, admitted that wages might rise above the subsistence level for an indefinite period in an improving society.
3) The second criticism against this theory is that the subsistence level is more or less uniform for all working classes with certain exceptions. The thoery, thus, does not explain differences of wages in different employment.
4) The third criticism is that the theory explains wages only with reference to supply; the demand side has been entirely ignored. On the demand side, the employer has to consider the amount of work which the employee gives him and not the subsistence of the worker.
5) The fourth criticism is that the theory explains the adjustment of wages over the lifetime of a generation and does not explain wage fluctuations from year to year.
6) The fifth and the final criticism is that the term 'subsistence' has a very vague impression. Does it refer to the minimum requirements of a modern man or of a tribal savage?

MARGINAL PRODUCTIVITY THEORY OF WAGES

1) The marginal productivity theory was first stated by Von-Thunen. The theory has been developed by Wicksteed Walras J.B. Clark and many others.
2) Statement of the theory: Marginal productivity theory of wage explains that under perfect competition a worker's wage is equal to marginal as well as average revenue productivity. In other words, marginal revenue productivity and average revenue productivity (ARP) of a worker determine his wages.
3) According to this theory wage of a laborer is determined by his marginal productivity. In other words, marginal revenue productivity = marginal wages. Marginal productivity is the addition made total productivity by employing one more unit of labor. As the laborers are given money wage their marginal productivity is calculated in terms of money. This is called marginal revenue productivity (MRP). MRP is the addition made to the total revenue by employing one more unit of a worker. A producer will maximize his profit when the wage of a laborer is equal to the marginal revenue product.
4) If MW is greater than MRP (MW > MRP) wage is greater than marginal revenue product. The producer will sustain loss then. If MW for labor is higher than its marginal revenue product then the employers get less and pay more. Thus he loses.
5) On the other hand if the producer pays wage less than MRP. (ME < MRP) he will gain. But his gain will not be maximized. Thus he will gain by employing workers so long when MW = MRP. Thus the wage of a laborer will be determined where MRP - M.W.

Supposing producer employee 3 laborers with other factors of production. He gets Rs.200 as total revenues i.e. income from the sale of output. It he employed an additional laborer his total revenue increases by Rs. 300. Thus by employing one additional laborer, he adds Rs. (200-100) = Rs.100 to the total revenue, this increase in Rs. 100 is called MRP. Under perfect competition, n worker gets wages equal to his marginal revenue productivity.

If the laborers demand more than Rs. 100, the producer will employ lower number of workers since their new price exceeds their marginal productivity. When less number of workers get higher wage, the unemployed laborers will bring down the wage to the equilibrium level. Ultimately wages will tend to equal marginal productivity of workers. In such a situation the producer thinks of employing more laborers to maximize his profit. This process will continue until wages become equal to the workers marginal "activity.

The marginal productivity theory can be explained with the help of the following figure:

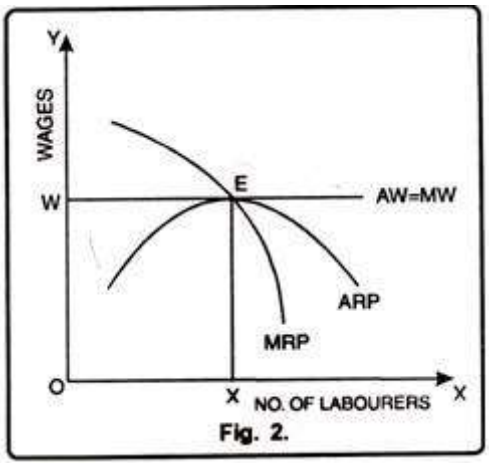


Fig. 2.

In the above fig number of laborers is measured on OX-axis and wage rate on OY-axis. ARP and MRP are average revenue productivity and marginal revenue productivity curves respectively. The equilibrium wage rate will be determined at a point where both the ARP and MRP are equal to each other.

In the figure, the equilibrium wage rate (OW) is determined at point E because at this point both the ARP and MRP are equal. The firm at OW wage rate will employ OX number of laborers. If the firm employs more workers than OX, it will have to face more losses or fewer profits. Therefore, the ideal situation for a firm is to employ workers up to the point where ARP and MRP are equal.

Assumptions of marginal productivity theory

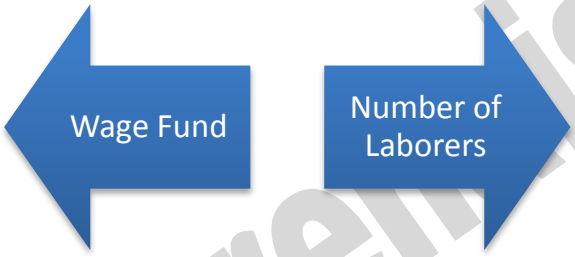
(1) Perfect competition prevails in both product and factor market.
(2) Law of diminishing marginal returns operates on the marginal productivity of labor.
(3) Labor is homogeneous.
(4) Full employment prevails.
(5) The theory is based on long run.
(6) Modes of production in constant.

Criticism of marginal productivity theory:

1. The theory is based on the assumption of perfect competition. But perfect competition is unreal and imaginary. Thus theory seems in practicable.
2. The theory puts too much on demand side. It ignores supply side.
3. Production is started with the combination of four factors of production. It is ridiculous to say that production has increased by the additional employment of one worker. Employment of an additional laborer amounts nothing in a big scale industry.
4. The theory is static. It applies only when no change occurs in the economy. Under depression wage cut will not increase employment.
5. This, theory explains that wages will be equal to MRP and ARP.
6. It is difficult to measure MRP because any product is a joint product of both fixed and variable factors.
7. According to Watson the theory is cruel and harsh. This theory never takes into consideration the marginal product of old, aged, blind etc.

THE WAGES-FUND THEORY OF WAGES

1) Wages Fund Theory: This theory is associated with the name of J.S. Mill. According to Wages Fund Theory wages depend upon two quantities, viz.:
   (i) The wage fund or the circulating capital set aside for the purchase of labor, and
   (ii) The number of laborers seeking employment.



To pay the laborer, a wage fund is raised. Once the wage fund is rose, it is kept constant. The wage fund is distributed among the worker's employed. The workers are assumed to be paid equal amount. It is because the units of labor are homogeneous. If more workers are employed each worker gets fewer amounts and if less number of workers is employed each worker gets more amount of money. The wage level is given by the ratio of wage fund and number of worker's employed.

Mathematically,

$$wage\ level = \frac{\text{wage fund}}{\text{no. of workers employed}}$$

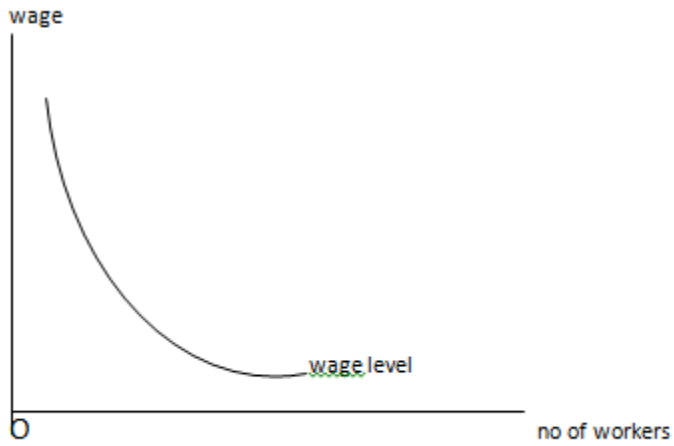
$$W = \frac{W.F}{N}$$

$$W \propto \frac{1}{N}$$

This theory can be explained with the help of table and figure as following:

Wage fund (W.F)	No. of workers (N)	Wage level (W.F/N)
Rs 1,00,00,000	50000	Rs 200
Rs 1,00,00,000	100000	Rs 100
Rs 1,00,00,000	150000	Rs 66.67

In the above table, wage fund raised is Rs 1, 00, 00,000. When the number of workers employed is increased from 50000 to 100000 and 150000 the wage level is decreased from Rs 200 to Rs 100 and Rs 66.67 respectively. It is due to constant wage fund distributed among more workers. If we represent wage level with respect to number of workers employed, we obtain a convex curve.



In the above figure, the downwardly sloped convex curve represents inverse relationship between wage level and no of workers employed.

Assumptions:

- According to this theory, wage fund is rose before the employment of workers
- The workers are paid equally out of the wage fund

- The units of labor are homogeneous
- The wage level is flexible to the change in number of workers employed
- Money is just a medium of exchange

Criticisms:

- Wage fund is not raised before employing the workers but is rather raised on the basis of worker's employed
- Wage paid to workers differs from place to place, time to time, person to person and organization to organization.
- Units of labor are not homogeneous. They differ in skill, knowledge, strength, education, attitude etc.
- Wage level is not flexible. Wage level fall is opposed by workers and trade unions
- Money is not mere medium of exchange. It has effect on production, investment, employment level etc.

MODERN OR SUPPLY –DEMAND THEORY OF WAGES

Modern theory of wages regards wages as a price of labor and all other prices determined by the usual supply and demand analysis. According to this approach, wages are determined by the interaction of market forces of demand and supply.

Demand for Labor:

The demand for labor comes from the entrepreneurs as it is used for the production of goods and services. Thus, the demand for labor depends upon the productivity of labor i.e., the higher the productivity of labor, the greater will be the demand for it from employers. Thus, demand for labor depends upon the marginal productivity of labor; since the marginal productivity of labor will slope downwards after a stage, the demand curve of labor will also slope downward.

Factors Affecting the Demand for Labor:

1. Technological Changes:

- Technological changes influence the marginal productivity of labor. Therefore, these changes also influence the demand for labor.

2. Derived Demand:

- Demand for labor is a derived demand. It means that demand for labor depends upon the demand for goods and services which it produces. If at any given time the demand for a particular commodity produced by the labor is high, it is natural that the demand for labor shall also be high. Hence, the greater is the consumer demand for the product, the higher will be the demand for the labor to produce that commodity.

3. Proportion of Labor:

- The demand for labor also depends upon the proportion in which labor is mixed with other factors of production. When a small amount of labor is engaged in the production of a product, the demand for that type of labor is inelastic. For instance, the demand for labor for operating automatic machines or latest machines in large scale factories is inelastic.

4. Cost of other Factors:

- The demand for labor depends upon the cost of other factors of production which can be used as substitute for labor. If substitute factors are costly, the entrepreneur will naturally substitute labor in place of costly factor.
- In such a case the demand for labor will be high. If the prices of substitute factors which can be used in place of labor have declined, the substitute factor will be used in place of labor. Hence, the demand for labor will decline.

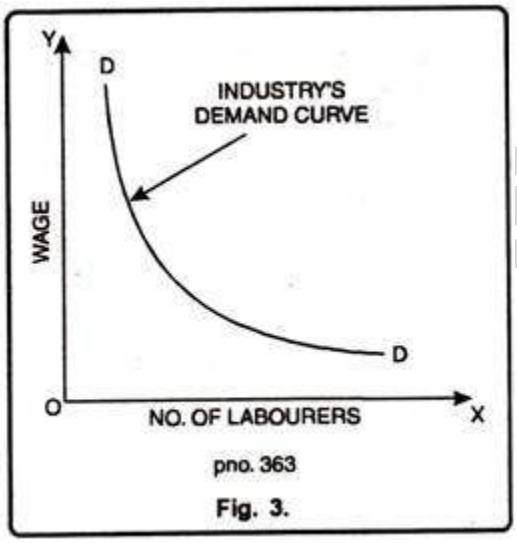


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Fig. 3.

In the above fig number of laborers has been measured on OX-axis and the wage rate on Y-axis. DD is the industry's demand curve. It slopes downward from left to right indicating that when wages are low, demand for laborers increases and when the wage rate tends to increase, demand for labor decreases.

Supply of Labor:
Supply of labor in an economy depends upon both economic as well as non-economic factors:

Economic factors influencing the supply of labor comprises of existing employment, desire to increase monetary income, bargaining power of the laborers, size of population, income distribution etc. while the non-economic factors consist of family affection, social conditions, domestic environment etc.

Psychological factors also affect the supply of labor. It is only due to the psychological factors that a worker decides how much time he should devote to work and how much to leisure. Moreover, the supply of labor also depends on the elasticity.

The supply of labor for a firm is perfectly elastic, so, the firm at current wages can employ as many workers as it wishes. On the contrary the nature of supply of labor for an industry is not infinitely elastic. Thus, it cannot employ more and more laborers at the current wage rate. The industry can do so by attracting laborers from other industries by offering them higher wages. Following diagram clears this point more vividly.

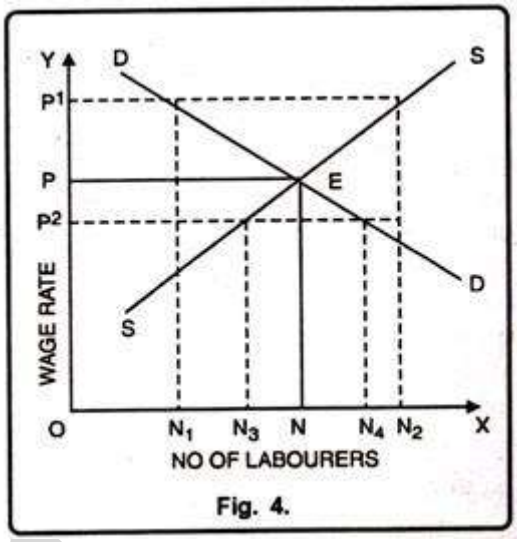


Fig. 4.

In the above Fig. hours supplied has been taken on X-axis and wages on Y-axis. SS is the backward bending supply curve. OP relates to the initial wage rate. When the wage rate is OP', the hours supplied are ON1. The maximum working hours are ON at wage rate OP. Now suppose the wage rate increases to OP", in that case hours supplied will decrease to ON3. Thus, we may conclude that like other factors of production, supply curve of labor is also upward sloping from left to right.

Factors Affecting Supply:

1. Size of Population:

- The supply of labor depends upon several factors. In the first place, the supply at any given time depends upon the number of laborers in the country. This, in itself is a result of the size of population and that proportion of this population which is called working population.
- The size of population is determined by the difference in birth rate and the death rate. The proportion of total population which is called working population depends upon occupational distribution, level of technical advancement, conservation and mobility of labor.

2. Efficiency of Labor:

- The supply of labor does not merely depend upon the size of population. It also depends upon the efficiency of labor. Efficiency depends upon several factors like hours of working, service and working conditions, wage rates, economic incentives and other conditions that have a bearing upon the working ability of labor.

3. Mobility of Labor:

- The supply of labor also depends upon the mobility of labor. If the labor is less mobile either because the means of transport are not developed or there is conservatism among the laborers, or because there are climatic, language or traditional hindrances, then it follows that supply of labor shall be highly limited.

THEORY OF INTEREST

Productivity Theory of Interest:

This theory of Interest was expounded by **J. B. Clark and F. H. Knight. Further Marshall, J. B. Say, Von-Thunen** supported this theory. According to this theory interest arises on account of the productivity of capital. The amount that labor produces with the help of capital goods is generally larger than the amount it can produce when working by itself. Machinery and tools invariably add to the income of those that use them. That is why they are demanded by individual employers. Further some classical economists hold that Interest is the reward paid to capital because it is productive. In fact, Interest is paid out of the productivity of capital. When more amount of capital is employed along with labor and other resources, the over-all productivity improves. By employing capital, the borrower (entrepreneur) obtains higher production, he ought to pay a part of this additional production to the owner of capital in the form of Interest. The theory implies that capital is demanded because it is productive. And, because it is productive its price, i.e., Interest must be paid.

Its Criticisms:

The important criticisms of this theory are as follows:

- **This theory is one sided:** Economists have called this theory as one-sided. It is half-truth, because it is related only to the demand aspect of capital and it completely ignores the supply side. If, however, the supply of capital is abundant, then, however great the capital productivity may be, the question of Interest will not arise, or at-least, Interest will be only normal.
- **Considers only the higher productivity of capital:** this theory suggests that when productivity of capital is higher, Interest is payable. On the contrary if capital is in short supply, greater will be the relative scarcity and higher will be the rate of Interest.
- **Productivity of Capital Varies:** Again, productivity of capital varies in different industries and in different trades. This means that Interest rates should differ from industry to industry. However, the fact is that the pure Interest rate will be the same throughout the market and the borrower may borrow capital for any use.
- **Difficult to measure the exact productivity:** It is difficult to measure the exact productivity of capital, as capital cannot produce anything without the help of labor and other factors.
- **How much interest for consumption loans?** This theory fails to explain the Interest paid for consumption loans. Because in practice we find that interest-bearing loans are also made for consumption purposes.

Abstinence or Waiting Theory of Interest:

This theory was expounded in 18th century by an eminent economist **N. W. Senior**. According to him, **"Capital is the result of Saving".** He was the first economist to point-out that saving, which was later on embodied in capital goods, involved a sacrifice, an 'abstinence' as he called it.People may spend the whole of their income in consuming present goods. But when they save they 'abstain' from present consumption. Such abstinence is disagreeable. Hence, in order to induce

people to save, we must offer them some inducement as compensation for their sacrifice. Interest is therefore the compensation for abstinence.

Marshallsubstituted the word 'waiting' for abstinence. Saving connotes waiting, when an individual saves a part of his income, he does not thereby eternally refrain from consumption. He only defers his consumption for a certain period, i.e., till the fruits of his savings come in an increasing flow afterwards.

Meanwhile he must wait, and as a rule people do not like to wait. Not only saving, but all kinds of productive activity involve waiting. A farmer who sows his crops must wait till crops are harvested. The gardener who plants a seed must wait till it grows into a tree and begins yielding fruit.Waiting is, therefore, a necessary condition for production. It is thus a separate factor of production and can be substituted for other factors. Since waiting is a factor of production, its price will be determined by the marginal analysis. That is, the rate of interest tends to equal the reward necessary to call forth marginal increment of saving.

Criticisms:

This theory has been criticized on the following grounds:

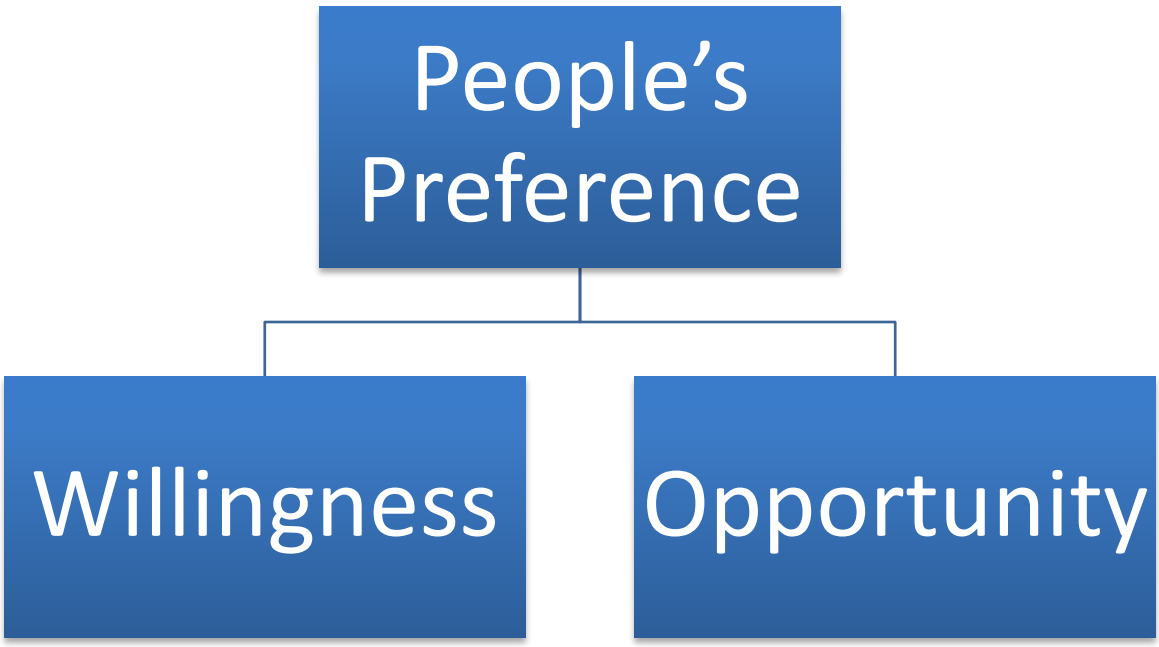
- **This theory takes no consideration of the productivity of capital:**In fact, here the borrower uses and pays for the capital because it is productive.
- **In this sacrifice cannot be measured:**In this theory the feeling of sacrifice or real cost of saving cannot be measured so it is difficult to see how a given rate of Interest can be arrived at by this theory. This theory is subjective and not amenable in practice.
- **In this rich hardly experience any inconvenience as they have enough money:**As we have experienced that a large part of capital comes from rich, wealthy lenders who have a surplus of income so that they hardly experience any inconvenience or sacrifice of consumption and they save because they do not know what to do with their fabulous income. So mere sacrifice is no justification for the payment of Interest.
- **The intensity of feeling of sacrifice is also different for different individuals:**It has been seen that many times, a person with small means gets pleasure in saving, where as an extravagant, rich person may feel a great loss of pleasure if he has to save. In answer to this criticism, Marshall has suggested the term 'waiting' to replace 'abstinence' in his theory which implies that a person gets Interest as a reward for waiting i.e., by giving loans he passes on his resources and thereby postpones his consumption for the time being, and this has to be compensated. But Cannan was not in favor of the term 'waiting'. In his opinion 'waiting1 means inaction and inaction would never produce anything in real life.
- **This theory has been called one-sided:**Because it emphasises only the supply side, ignoring the factors leading to the demand for saving or capital. Thus, Interest can be paid as a reward to abstain from consumption and save resources for capital formation. Perhaps, this is also true for certain backward modern economies.

Prof. Fisher's Time Preference Theory

Prof. Fisher's Time Preference Theory is the modified theory of Bohm-Bawerk. This theory is based on **Bohm-Bawerk's theory of Interest**. According to this theory, Interest is the price of time of reward for agio, i.e., time preference. It has been argued that man generally prefers present income to a future income and consumption. There is an 'agio' or premium on present consumption as compared to a future one. People prefer enjoyment of present goods to future goods because future satisfaction, when viewed from the present, undergoes a discount. Interest is this discount, which must be paid in order to induce people to lend money and thereby to postpone present satisfaction to a future date. Thus, Interest is the reward made for inducing people to change their time-preference from the present to the future.

While explaining this theory **Prof. Fisher** has said that—Time preference theory stresses the idea that the supply of loans depends on the fact that most people prefer to have a certain sum of money now than at some future time. People normally put a lower valuation on future goods than on present goods. Because of their time preference (i.e., preference for the present than the future) people are eager to spend their income on present consumption. **Therefore, when somebody lends to someone, he has to forgo his present consumption. He can be made prepared to leave his present consumption only when he is offered some sort of reward. This reward is Interest. Higher, the eagerness to spend on present consumption, higher will be the Interest rate. Thus, Interest rate depends on time-preference or an eagerness to spend income on present consumption**. In fact Fisher has defined Interest as **"an index of the community's preference for a dollar of present over a dollar of future income."**
As he has said that the intensity of the people's preference for present income depends on a host of subjective and objective factors.

These have been grouped under:



Thus, Fisher based his theory of Interest on two principles, viz.:
1. the impatience or the willingness principles, and
2. the investment opportunity principle.

He laid down that Interest is determined by the preference of the people for the present income against future income, which in turn is determined by the willingness principle and the investment opportunity principle.

(a) Impatience or the willingness principles:

This depends on several factors, such as:

- Size of income,
- Composition of income,
- Distribution of income,
- Uncertainty element in the future earnings,
- Personal attributes like foresight, precaution etc.

Some of these factors encourage people's patience, some make them impatience. Say, **for example, when income is enough, people will be satisfied more of current wants and discounting the future at a lower rate. If uncertainty of future is highly estimated, the rate of impatience will tend to be high.When the rate of willingness is lower than the market rate of Interest a person will be willing to his income and wish to gain in future. But, if the market rate of Interest is lower than the rate of willingness, the person would like to borrow money and spend it on current consumption.**

(b) The investment opportunity principle:

This principle is another determinant of the rate of Interest. This principle refers to the rate of return over cost, viewed in a specific sense. To explain this phenomenon, let us assume that an individual is confronted with alternative investment proposals which imply two income streams that are substitutes. Hence, when he withdraws one income stream to substitute it for another, the loss experienced in the withdrawal is the 'cost', while the gain accruing from the adopted new income stream is the 'return'.

The rate of return over cost is, therefore, **the rate of discount, which equalizes the present net values of the investment opportunities.** The rankings of different investment proposals are decided in relation to the rate of Interest.If the discount rate is higher than the market rate of Interest, one of the two alternative proposals will be given up. The investment opportunity which carries a higher rate of return over cost will be accepted and the one which has a lower return will be rejected.In short, it can be said that the rate of willingness and the rate of marginal return over cost, together determine the people's preference for present income rather than future income, which in turn, determines the Interest rate, because Interest is the price paid for this preference. Fisher's Theory, in this way considers time-preference as the sole significant determinant of the supply of capital and the rate of Interest.

Its criticisms:

This Time Preference Theory of Fisher has been severely criticized by many eminent economists.

- **This theory is one sided:**Modern economists call this theory as one-sided. It explains why capital has a supply price, but it fails to explain why capital has a demand. It completely ignores the productivity aspect of capital.
- **This theory fails to recognize the input of bank credit:**It considers and explains the supply of capital as the outcome of savings alone. It does not recognize the impact of the banking system and credit creation by commercial banks on investments and the rate of Interest.
- **Here time-preference has little practical significance:**Economists like Erich Roll and others have stated that the very existence of time-preference is questionable and even if it exists, it is very difficult to see any precise significance of time-preference on the determination of Interest.
- **This theory has been called as "Incorrect Visualization":**To some critics, it is not proper or it is incorrect to say that a person always prefers present consumption to the future one so that he always insist on a premium to be paid for postponement. On the contrary, strangely enough, very often a person is found to have realized greater satisfaction from future consumption than the present one. Therefore, with these arguments economists do not call this theory as a correct principle of Interest determination.

Classical Theory of Interest or Demand and Supply of Capital Theory of Interest:

This theory was expounded by eminent economists like **Prof. Pigou, Prof. Marshall, Walras, Knight** etc. According to this theory, Interest is the reward for the productive use of the capital

which is equal to the marginal productivity of physical capital.Therefore, those economists who hold classical view have said that **"the rate of Interest is determined by the supply and demand of capital. The supply of capital is governed by the time preference and the demand for capital by the expected productivity of capital. Both time preference and productivity of capital depend upon waiting or saving. The theory is, therefore, also known as the supply and demand theory of waiting or saving."**

Demand for Capital:

Demand for capital implies the demand for savings. Investors agree to pay interest on these savings because the capital projects which will be undertaken with the use of these funds, will be so productive that the returns on investment realised will be in excess of the cost of borrowing, i.e., Interest.

In short, capital is demanded because it is productive, i.e., it has the power to yield an income even after covering its cost, i.e., Interest. The marginal productivity curve of capital thus determines the demand curve for capital. This curve after a point is a downward sloping curve. While deciding about an investment, the entrepreneur, however, compares the marginal productivity of capital with the prevailing market rate of Interest.

Marginal Productivity of Capital = the marginal physical product of capital x the price of the product.

When, the rate of Interest falls, the entrepreneur will be induced to invest more till marginal productivity of capital is equal to the rate of Interest. Thus, the investment demand expands when the Interest rate falls and it contracts when the Interest rate rises. As such, investment demand is regarded as the inverse function of the rate of Interest.

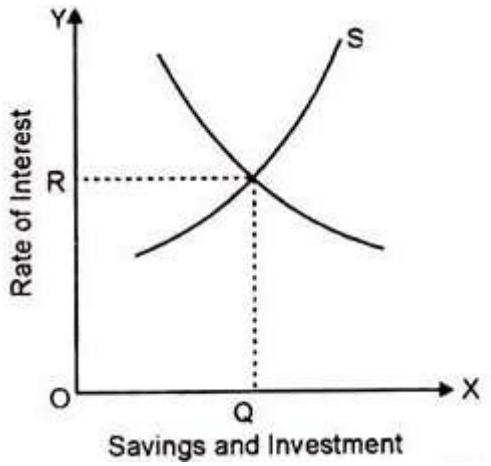
Supply of Capital:

Supply of capital depends basically on the availability of savings in the economy. Savings emerge out of the people's desire and capacity to save. To some classical economists like Senior, abstinence from consumption is essential for the act of saving while economists like Fisher. Stress that time preference is the basic consideration of the people who save.In both the views the rate of Interest plays an important role in the determination of savings. The chemical economists commonly hold that the rate of saving is the direct function of the rate of Interest. That is, savings expand with the rise in the rate of Interest and when the rate of Interest falls, savings contract. It must be noted that the saving-function or the supply of savings curve is an upward-sloping curve.

Equilibrium Rate of Interest:

The equilibrium rate of Interest is determined at that point at which both demand for and supply of capital are equal. In other words, at the point at which investment equals savings, the equilibrium rate of Interest is determined.

This has been shown by the diagram given below:



In the figure given here OR is the equilibrium rate of Interest which is determined at the point at which the supply of savings curve intersects the investment demand curve, so that OQ amount of savings is supplied as well as invested. This implies that the demand for capital OQ is equal to the supply of capital OQ at the equilibrium rate of Interest OR.

Indeed, the demand for capital is influenced by the productivity of capital and the supply of capital. In turn savings are conditioned by the thrift habits of the community. Thus, the classical theory of Interest implies that the real factor, thrift and productivity in the economy are the fundamental determinants of the rate of Interest.

Its Criticisms:

The theory of Interest of the classical economists has been severely criticised by Keynes and others.

The important criticisms are as under:

- **Interest is purely a monetary phenomenon:** According to Keynes—Interest is purely a money phenomenon, a payment for the use of money and that the rate of Interest is a reward for parting with liquid cash (i.e., dishoarding) rather than a return on saving. Keynes has said that one can get interest by lending money which has not been saved but has been inherited from one's forefathers.It completely neglects the influence of monetary factors on the determination of the rate of Interest. The classical economists regarded money as a 'veil' as a medium of exchange over goods and services. They failed to take into account money as a store of value.
- **The theory of interest is confusing and indeterminate:** Keynes has said that the classical theory of Interest is confusing and indeterminate. We cannot know the rate of Interest unless we know the savings and investment schedules which again, cannot be known unless the rate of Interest is known. Thus, it can be said that the theory fails to offer a determinate solution.
- **This theory is unrealistic and inapplicable in a dynamic economy:** Because it assumes that income not spend on consumption should necessarily be diverted to investment, it ignores the possibility of saving being hoarded. It fails to integrate monetary theory into the general body of economic theory.

- **Classicists have described the rate of interest as an equilibrating factor between savings and investment:**But according to Keynes, "the rate of interest is not the price which brings into equilibrium the demand for resources to invest with the readiness to abstain from present consumption. It is the price which equilibrates the desire to hold wealth in the form of cash."
- **This theory is narrow in scope:**Because it ignores consumption loans and takes into account only the capital used for productive purposes.
- **Keynes differs with the classical economists even over the very definition and determination of the rate of interest:**Keynes has said that Interest is the reward of parting with liquidity for a specified period. He does not agree that Interest is determined by the demand for and supply of capital. With these arguments Keynes has completely dismissed the classical theory of Interest as absolutely wrong and inadequate. He has never been agreeable with the view of classists.

The Loan-Able Fund Theory of Interest:

The Neo-classical or the Loan-able Fund Theory was expounded by the famous Swedish economist Knot Wick-sell. Further, this theory was elaborated by Ohlin, Roberson, Pigou and other new-classical economists. This theory is an attempt to improve upon the classical theory of Interest. According to this theory, the rate of Interest is the price of credit which is determined by the demand and supply for loanable funds.

In the words of Prof. Lerner:

"It is the price which equates the supply of 'Credit' or Saving Plus the Net increase in the amount of money in a period, to the demand for 'credit' or investment Plus net 'hoarding' in the period."

Demand for Loan-able Funds:

The demand for loanable funds has primarily three sources:
(i) **Government,**
(ii) Businessmen, and
(iii) Consumers who need them for purposes of investment, hoarding and consumption.

The **Government** borrows funds for constructing public works or for war preparations or for public consumption (to maintain law and order, administration, justice, education, health, entertainment etc.). To compensate deficit budget during depression or to invest in and for other development purposes. Generally government demand for loanable funds is not affected by the Interest rate.

The **businessmen** borrow for the purchase of capital goods and for starting investment projects. The businessmen or firms require different types of capital goods in order to run or expand their production. If the businessmen do not possess sufficient money to purchase these capital goods,

they take loans. Businessmen investment demand for loanable funds depends on the quantity of their production. Generally, the interest and firm's investment demand for loanable funds has also inverse relationship. It means there will be less demand on higher Interest and more demand on lower Interest.

The **consumers** take loans for consumption purposes. They prefer present consumption, they wish to purchase more consumption, goods than their present income allows and for that they take loans. They take loans to purchase mainly two types of consumption goods. First, durable consumption goods and secondly to purchase consumption goods of daily use and they generally open their accounts with the seller and go on purchasing goods on credit basis. Besides these they take loans for investment or speculative purposes also. Behind this they have profit motive.

Supply to Loanable Funds:

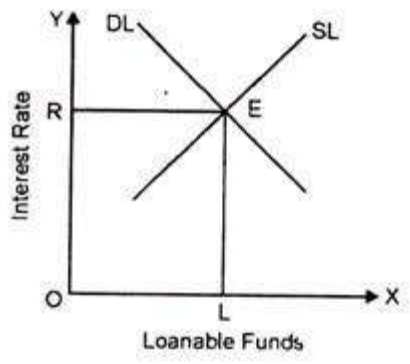
The supply of loanable funds comes from **savings, dis-hoardings and bank credit**.

Private savings, individual and corporate are the main source of savings. Though personal savings depend upon the income level, yet taking the level of income as given, they are regarded as Interest elastic. The higher the rate of Interest, the greater will be the inducement to save and vice-versa.

There is a positive relationship between Interest-rate and the supply of loanable funds. It means there will be more supply of loanable funds at higher interest and less supply on lower interest. Hence the supply curve of loanable funds will be an upward sloping curve from left to right.

Determination of Interest Rate:

The equilibrium between the demand for and supply of loanable funds (or the intersection between demand and supply curves of loanable funds) indicates the determination of the market rate of interest. It has been shown in the diagram given here.
In the diagram demand curve for loanable funds (DL) and supply curve of loanable funds (SL) meet at point E. Therefore, E will be the equilibrium point and OR will be the equilibrium rate of interest. At this rate of interest demand for and supply of loanable funds both are equal to OL.



Given the supply of loanable funds, if the demand for loanable funds rises, the Interest rate will also rise and if the demand for loanable funds falls, the Interest rate will also fall. Similarly, given the demand for loanable funds, Interest rate will rise with the fall in the supply of loanable funds and will fall with the rise in the supply of loanable funds. The equilibrium rate of interest is thus determined where SL = DL.

Its Criticisms:

The important criticisms of this theory are as follows:

- **It has been called as indeterminate theory:**Prof. Hansen asserts that the loanable funds theory like the classical and the Keynesian theories of Interest are indeterminate. Because according to this theory Interest rate determination depends on savings. But saving depends on income, income depends on investment and investment itself depends on Interest rate.
- **In this theory the equilibrium between demand for and supply of loanable funds cannot be brought by the changes in interest rate:**Investment in the demand for loanable funds and savings in the supply of loanable funds are important elements. Both saving and investment are not so much influenced by Interest as they are influenced by the changes in income-levels.Besides this, it is not essential that banks would necessarily change their Interest rate with the changes in demand for and supply of loan-able funds. Banks determine their Interest rate keeping in view so many factors and they would not like to make frequent changes in it. In this situation it would be difficult to bring equilibrium in demand for and supply of loan-able funds through the changes in the Interest rate.
- **This theory exaggerates the effect of the rate of interest on savings:**Regarding this theory critic argue that people usually save not for the sake of interest but out of precautionary motives and in that case, saving is Interest-inelastic.
- **Availability of Cash balance which is not elastic:**The loanable funds theory states that the supply of loanable hands can be increased by releasing cash balances of savings and decreased by absorbing cash balances into savings. This implies that the cash balances are fairly elastic. But this does not seem to be correct view because the total cash balances available with the community are fixed and equal the total supply of money at any time. Whenever there are variations in the cash balances, they are, in fact, in the velocity of circulation of money, rather than in the amount of cash balances with community.
- **Government influence on the demand:**Government has an important influence on the demand for and supply of loanable funds. And it is not essential that government may always take the decisions in view of Interest rate. Rather government generally takes the decisions keeping in view the public Interest and not the Interest rate.

Is Loanable Funds Theory Superior over The Classical Theory?

In-spite of the weaknesses, the loanable funds theory is better and more realistic than the classical theory on the following grounds:

a. The loanable-funds theory is more realistic than the classical theory:
The Loanable funds theory is stated in real as well as in money terms, whereas the classical theory is stated only in real terms. The rate of interest is a monetary phenomenon. Therefore, a theory stated in money terms seems more realistic.

b. The loanable funds theory recognizes the active role of money in a modern economy:
To the classical school money is merely a 'veil', a passive factor influencing the rate of interest. The loanable funds theory is superior because it regards money as an active factor in the determination of the Interest rate.

c. Role of bank credit as a constituent of money supply:
Classical school of thought neglects the role of bank credit as a constituent of money supply influencing the rate of Interest which is an important factor in the loanable funds theory

d. Role of hoarding:
The classicists are also of this opinion and they also do not consider the role of hoarding. By including the desire to hoard money in the demand for loanable funds, the loanable funds theory becomes more realistic and brings us nearer to Keynes's liquidity preference theory.

Keynes's Liquidity Preference Theory of Interest or Interest is Purely a Monetary Phenomenon:

According to Keynes, Interest is purely a monetary phenomenon. It is the reward of not hoarding but the reward for parting with liquidity for the specified period. It is not the 'Price' which brings into equilibrium the demand for resources to invest with the readiness to abstain from consumption. It is the 'Price' which equilibrates the desire to hold wealth in the form of cash with the available quantity of cash.Here Liquidity Preference Theory is determined by the supply of and demand for money. Supply of money comes from banks and the government. On the other hand, demand for money is the preference for liquidity. According to Keynes people like to hoard money because it possesses liquidity.
Hence, when somebody lends money he has to sacrifice this liquidity. A reward which is offered to make him prepared for parting with liquidity is called Interest. Therefore, in the eyes of Keynes—" Interest is the reward for parting with liquidity for a specific period."

Liquidity Preference or Demand for Money:
Liquidity preference means demand for cash or money. People prefer to keep their resources **"Liquid".** It is because of this reason that among various forms of assets money is the most liquid form. Money can easily and quickly be changed in any form as and when we like. Suppose, you have a ten rupee note now you can change it into either wheat, rice, sugar, milk, book or in any other form you like. It is because of this feature of liquidity of money, people generally prefer to have cash money.

The desire for liquidity arises because of three motives:
(i) The transaction motive;
(ii) The precautionary motive; and
(iii) The speculative motive.

(i) Transactions Motive:

The transactions motive relates to **"the need of cash for the current transactions of personal and business exchanges"**. It is further divided into the income and business motives. The income motive is meant "to bridge the interval between the receipt of income and its disbursement", and similarly, the business motive as "the interval between the time of incurring business costs and that of the receipt of the sale proceeds." If the time between the incurring of expenditure and receipt of income is small, less cash will be held by the people for current transactions and vice-versa.

(ii) Precautionary Motive:

The precautionary motive relates to **"the desire to provide for contingencies requiring sudden expenditures and for unforeseen opportunities of advantageous purchases."** Both individual and businessmen keep cash in reserve to meet unexpected needs. Individual hold some cash to provide for illness, accidents, unemployment and other unforeseen contingencies. Similarly, businessmen keep cash in reserve to tide over unfavorable conditions or to gain from unexpected deals.

(iii) Speculative Motive:

Money held under the speculative motive is for **"securing profit from knowing better than market what the future will bring forth."** Individuals and businessmen have funds, after keeping enough for transactions and precautionary purposes, like to gain by investing in bonds.

Money held for speculative purposes is a liquid store of value which can be invested at an opportune moment in Interest bearing bonds on securities. There is an inverse relationship between interest rate and the demand for money i.e., more demands for money at lower Interest rate and less demand at higher interest rate. Hence, the liquidity preferences curve becomes a downward sloping curve.

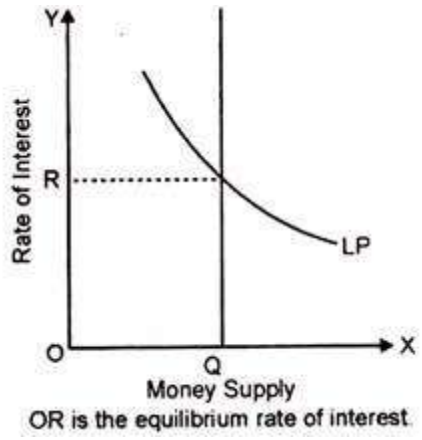
Supply of Money:

The supply of money refers to the total quantity of money in the country for all purposes at any time. Though the supply of money is a function of the rate of Interest to a degree, yet it is considered to be fixed by the monetary authorities, that is, the supply curve of money is taken as perfectly inelastic.

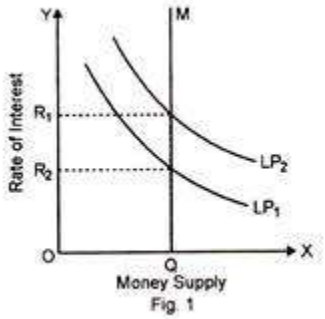
The supply of money in an economy is determined by the policies of the government and the Central Bank of the country. It consists of coins, currency notes and bank deposits. The supply of money is not affected by the Interest rate, hence, the supply of money remains constant in the short period.

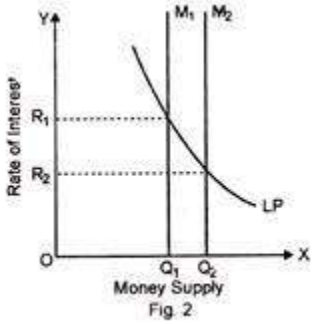
Determination of Interest Rate:

According to the Liquidity-Preference Theory the equilibrium rate of interest is determined by the interaction between the liquidity preference function (the demand for money) and the supply of money, as presented in figure below:



OR is the equilibrium rate of interest. The theory further states that any change in the liquidity preferences function (LP) or change in money supply or changes in both respectively cause changes in the rate of interest. Thus as shown in figure below, it given the money supply the liquidity preference curve (LP) shifts from LP_1 to LP_2 implying thereby an increase in demand for money, the equilibrium rate of interest also rises from to R%.





Similarly, assuming a given liquidity preference function (LP) as in fig. (b) when the money supply increases from M_1 to the rate of interest falls from R_1 to R_2.

Its Criticisms:

The following major criticisms have been levelled against the Keynesian Liquidity Preference theory of interest. By Hansen, Robertson, Knight and Hazlitt etc. This theory has been characterised as "a college bursar's theory", "at best an inadequate and at worst a misleading account".

Important among them are as follows:

This theory is indeterminate, inadequate and misleading: Prof. Hansen and Robertson maintain that the Keynesian theory of interest rate, like the classical theory is indeterminate, inadequate and misleading. In the Keynesian version, the liquidity preference function will shift up

or down with changes in the level of income. Particularly the liquidity preference for transactions and out of precautionary motive. This being the function of income and with this we know the income level. And to know the level of income we must know the rate of interest. Robertson regards the liquidity preference theory, "as at best inadequate and at worst a misleading account."

Hazlitt's Criticism:Professor Hazlitt has vehemently criticised the Keynesian theory of interest on the following grounds:

(i) It is one sided theory:
According to Hazlitt, the Keynesian theory of interest appeared to be one sided as it ignored real factors. Keynes considered Interest to be a purely monetary phenomenon and refused to believe that real factors like productivity and time preference, had any influence on the rate of interest. Similarly, the classicists also were wrong in considering Interest purely as a real phenomenon and ignoring the monetary factors.
(ii) Role of saving has been ignored:
Keynes has ignored the element of saving, which he considered Interest as a reward for parting with liquidity. Professor Jacob Viner has said that "without saving there can be no liquidity to surrender. The rate of interest is the return for saving without liquidity." As such the element of saving cannot be ignored in any theory of Interest.
(iii) The theory has completely failed to explain depressionary situation:
It goes directly contrary to the facts that it presumes to explain. If the theory were right, the rate of interest would be the highest precisely at the bottom of a depression when, due to falling prices, people's preference for liquidity is the strongest. On the contrary the rate of interest is at the bottom during a depression.
(iv) This theory is vague and confusing:
This concept is vague and confusing, because when a man holds funds in the form of time deposits, he will be paid Interest on them; therefore he receives both i.e., Interest cum Liquidity.

This theory furnishes narrow explanation of the rate of interest: Keynes' Liquidity-Preference Theory of Interest furnishes too narrow an explanation of the rate of interest. In his view the desire for liquidity—an important factor in determining the rate of interest—arises not only from three main motives (transactions, precautionary and speculative) mentioned by Keynes, but also from several other factors which he has not mentioned in his theory.

This theory ignores productivity of capital: Some critics are of this opinion that Interest is not a reward for parting with liquidity as stressed by Keynes. They have written that Interest is the reward paid to the lender for the productivity of capital. As such, Interest is mostly paid because capital is productive.

It focuses attention on short-run ignores the long-period: The Keynesian theory concentrates only on the short-run and completely ignores the long-period of time. But from capital investment point, it is a long-term rather than a short-term rate of interest which is of course significant.

There is fundamental error in Keynesian analysis: There is confusion in Keynes's analysis about the relation between rate of interest and the amount of money. On the one hand, he says that the demand for money is inversely dependent on the rate of interest and on the other, that the equilibrium rate of Interest is inversely dependent upon the amount of money. Keynes has not made any distinction between the two propositions and often uses them in an identical manner.
In the end it can be said that the Keynesian Theory of Interest is not only indeterminate but is also an inadequate explanation of the determination of the rate of interest. He has emphasised that Interest is purely monetary phenomenon. That is why his theory has been named as "narrow and unrealistic theory.

Can Interest Rate Ever Fall to Zero?

No, the Interest rate, cannot fall to zero, because in the ordinary business of life, I think there is no possibility of the rate of interest ever falling to zero. As we see from the point of view of the demand for loans, zero rate of interest means that marginal net product of capital is nil. As marginal net product is nil, we cannot therefore increase the product further by employing more capital.
We have reached a state in which our productivity has reached the peak. It also means that all our wants have been satisfied. But we cannot conceive of a state of society in which men will have no wants and no desires, so long as these remain, there will always be endless possibilities for employing capital. The rate of interest cannot fall to zero.
Similarly, from the side of supply, a zero rate of interest means that people go on lending without expecting any reward. But there are certain reasons why liquidity-preference will not drop to zero.
As the rate of interest falls, more money will be absorbed to satisfy liquidity- preference on account of the transactions—motive, while the fall in the rate of interest will diminish the loss that one would sustain in keeping larger cash balances in hand.
Hence, "institutional and psychological factors are present which set a limit much above zero to the practical decline in the rate of interest." But, according to Prof. Schumpeter, the rate of interest would be zero in the static state. Interest arises because entrepreneurs demand capital, lured by the prospect of temporary profits. But profits disappear in the static state. And hence Interest would fall to zero. But this concept is mistaken. Even in such a state, there would be "Implicit Interest" as a result of 'abstinence' in the sense of refraining from accumulation.

Theory of ISLM

The Goods Market and the IS Curve:

The goods market equilibrium schedule is the IS curve (schedule). It shows combinations of interest rates and levels of output such that planned (desired) spending (expenditure) equals income.The goods- market equilibrium schedule is a simple extension of income determination with a 45°-line diagram. Now investment is no longer fully exogenous but is also determined by the rate of interest (which is a policy variable).

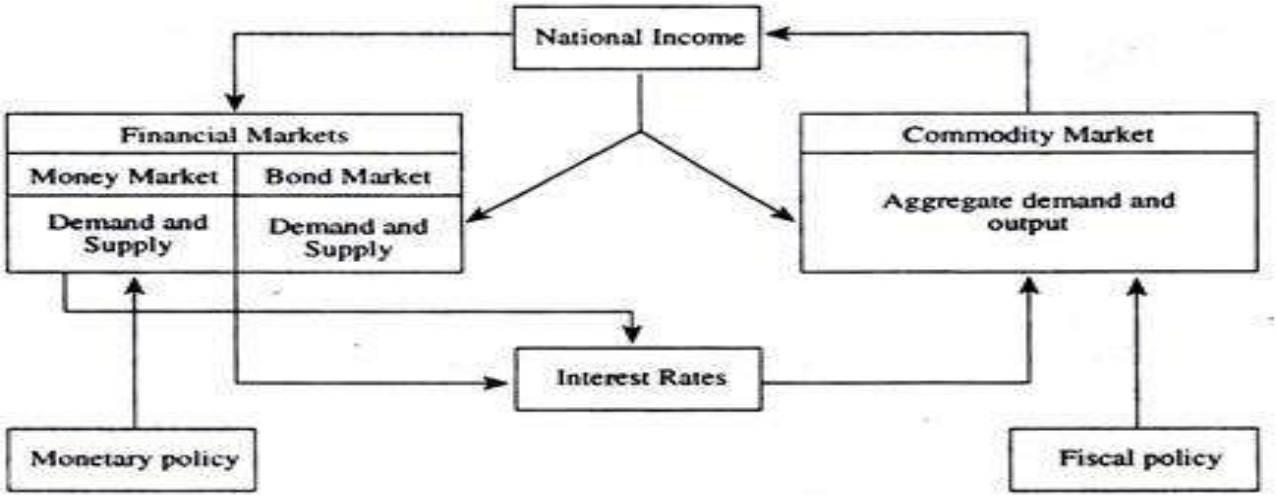


Fig. 38.1 The basic structure of the $IS - LM$ model

The investment function above states that the lower the interest rate, the higher is planned investment, with the coefficient c measuring the responsiveness of investment spending to the interest rate.

diagram below shows the planned level of investment (spending) at each rate of interest. Since higher rates of interest reduce the profitability of additions to the capital stock, they imply lower planned rates of investment spending. (Changes in autonomous investment shift the investment schedule).

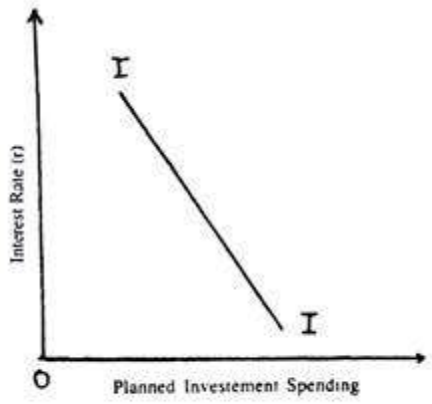


Fig. 38.2 The investment schedule

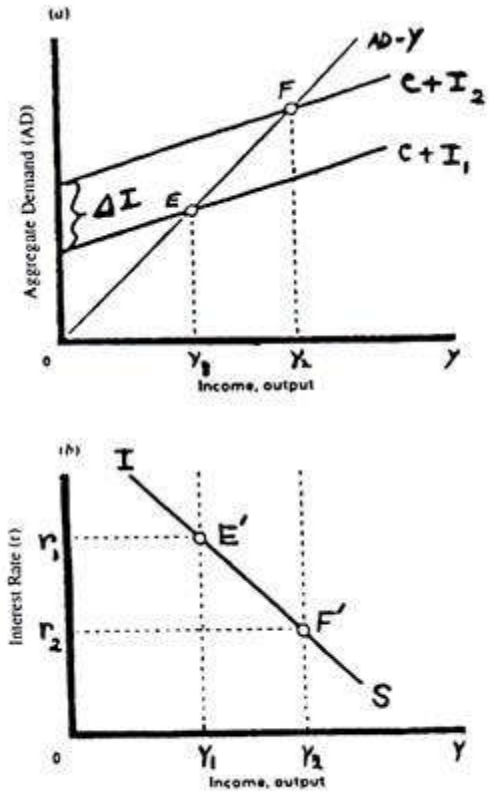


Fig. 38.3 The derivation of the IS curve

The above diagram shows how the IS curve is derived. At an interest rate, r1equilibrium in the goods market is at point E in the upper part of the figure, with an income level of Y1. In the lower part of this diagram we show point E'. Now a fall in the interest rate to r2 raises aggregate demand, increasing the level of spending at each income level.
The new equilibrium income is Y2. In the lower part, point F shows the new equilibrium in the goods market corresponding to an interest rate r2. The IS curve is a locus of points showing alternative combinations of interest rates and income (output) at which the commodity market clears. That is why the IS curve is called the commodity market equilibrium schedule.

We can gain further insight into the IS curve by raising and answering the following questions:

1. What determines the slope of the IS curve?
2. What determines the position of the IS curve, given its slope, and what causes the curve to shift?
3. What happens when the interest rate and income are at levels such that we are off the IS curve?

Properties of the IS Curve:

1. The Slope of the IS Curve:
The IS curve is negatively sloped because a higher level of the interest rate reduces investment spending, thereby reducing aggregate demand and thus the equilibrium level of income. The steepness of the curve depends on the interest elasticity of investment (i.e., how sensitive investment spending is to changes in the interest rate) as also on the (investment) multiplier.

2. The Position of the IS Curve:
The position of the IS curve depends on the level of autonomous spending. If autonomous spending increases, the IS curve will shift to the right (with or without a change in slope, depending on interest elasticity of investment).

3. The Positions off the IS Curve:
Fig. 38.4 is just a reproduction of Fig. 38.3(b), along with two additional points—the disequilibrium points G and H. At point G national income is the same as at E, but the rate of interest is lower (r2).
Consequently, the demand for investment is higher than that at E, and the demand for commodities is higher than that of E. This simply means that the demand for goods must exceed the level of output, and so there is an excess demand for goods (EDG). Likewise, at point H, the rate of interest is higher than at F. and there is excess supply of goods (ESG).
Thus Fig. 38.4 clearly shows that points above and to the right of the IS curve like H, are points of excess supply of goods (ESG). By contrast points below and to the left of the IS curve are points of excess demand for goods (EDG). At a point like G, for instance, the interest rate is too low and aggregate demand is too high relative to output.

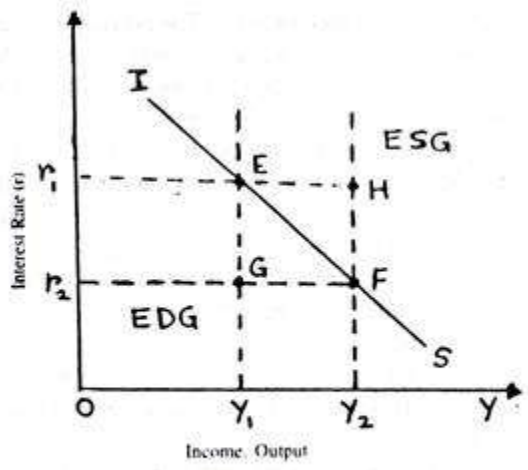


Fig. 38.4 Excess supply (ESG) and Demand (EDG) in the commodity market

Major Points About IS Curve

The main points about the IS curve are the following:

1. The IS curve is the schedule of combinations of the interest rate and the level of income such that the goods market is in equilibrium.
2. The IS is negatively sloped because an increase in the interest rate reduces planned (desired) investment spending and therefore reduces aggregate demand, thereby lowering the equilibrium level of income.
3. The smaller the multiplier and the less sensitive investment spending is to changes in the interest rate, the steeper the IS curve
4. The IS curve is shifted by changes in autonomous spending. An increase in autonomous spending, such as investment spending or government expenditure, shifts the IS curve to the right.
5. At points to the right of the IS curve, there is excess supply in the goods market: at points to the left of the curve, there is excess demand for goods.

Money Market Equilibrium and the LM Curve:

The financial market refers to the market in which money, bonds, stocks, and other forms of income- earning assets are traded. Here we restrict ourselves to the money market.
To study equilibrium in the money market, we have to refer to both sides of the market—the supply side and the demand side. The supply (or nominal quantity) of money (M) is determined by the Central Bank. So we assume it to be given at the level M.

Fig. 38.5 shows the demand for money as a function of the interest rate and real income. The money demand function is expressed as: L = kPY — hr, k. h > 0. The parameters k and h reflect the sensitivity of the demand for money to the level of income (Y) and the interest rate (r), respectively.
[Here kPY is transaction-cum-precautionary demand for money and hr is speculative demand.]
The demand for money (liquidity preference) is drawn as a function of the rate of interest (r).
The higher the rate of interest, the lower the quantity of money demanded, at a fixed level of income. An increase in income raises the demand for money. This is shown by a rightward shift of the money demand schedule.

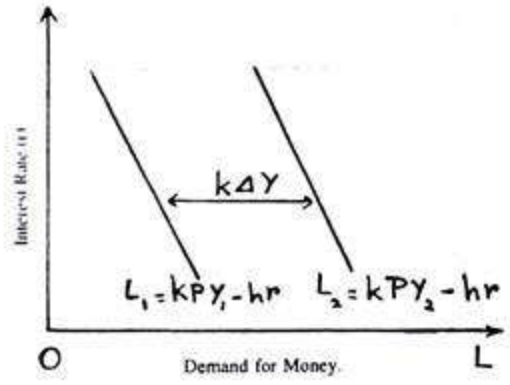


Fig. 38.5 The demand for money (liquidity preference)

In below Fig. 38.6 shows how the LM curve is derived. The right hand diagram [part (b)] shows the money market. The supply of money is the vertical line M, since it is fixed by the Central Bank.

The two demand for money curves L1and L2 correspond to two different income levels. When the income level is Y1, the demand curve for money is L1 and the equilibrium rate of interest is n. This gives point E' on the LM schedule in part (a). At a higher income level (Y2); the equilibrium rate of interest is r2, yielding point F' on the LM curve.
The LM curve is a locus of points showing alternative combinations of the rate of interest and the level of income that brings about equilibrium in the money market. In other words, the LM schedule (curve), or the money market equilibrium schedule, shows all combinations of interest rates and levels of income such that the demand for money is equal to its supply.

Properties of the LM Curve:

The properties of the LM schedule.These are the following:

1. The Slope of the LM Curve:

The LM schedule is positively sloped. This means that an increase in the interest rate reduces the demand for money. To maintain the demand for money equal to the fixed supply, the level of income has to rise. Accordingly, money market equilibrium implies that an increase in the interest rate is accompanied by an increase in the level of income.The greater the responsiveness of the demand for money to income, as measured by k, and the lower the responsiveness of the demand for money to the interest rate, as measured by h. the steeper the LM curve will be.In fact, a given change in income, ΔY, has a larger effect on the interest rate, r, the larger is k, and the smaller is h, If the demand for money is fairly inelastic, so that h is close to zero, the LM curve is nearly vertical.If the demand for money is fairly elastic (i.e., very sensitive to the interest rate), so that h has a high value, then the LM curve is almost horizontal. In that case, a small change in the interest rate must be accompanied by a large change in the level of income in order to maintain money market equilibrium.

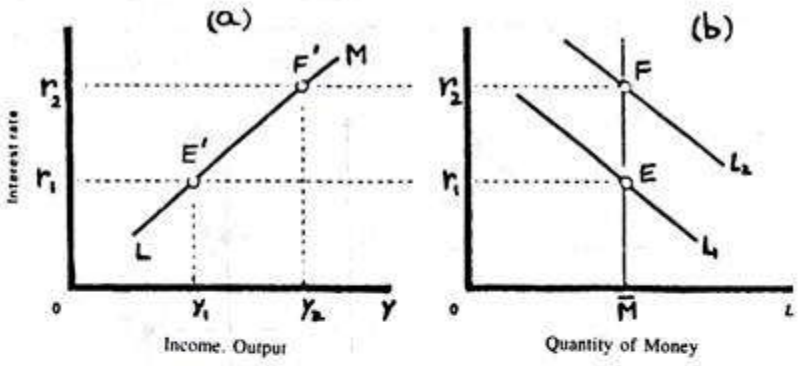


Fig. 38.6 Derivation of the LM curve

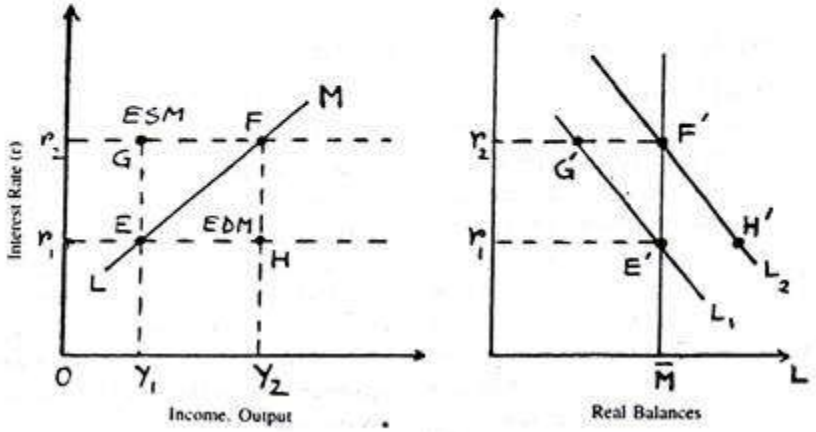


Fig. 38.7 A rightward shift of the LM curve

2. The Position of the LM Curve:

The money supply is held constant along the LM curve. It follows then that a change in the money supply shifts the LM curve. This point is illustrated in Fig. 38.7. An increase in the quantity of money in circulation shifts the supply curve of money to the right in part (b)—from M1 to M2.

To restore money market equilibrium at the initial level of income Y1, the equilibrium rate of interest in the money market has to fall to r2. In part (a) we show point F' as one point on the new LM schedule, corresponding to the higher money stock.

Thus an increase in the money stock shifts the LM curve to the right. At each level of income the equilibrium interest rate has to be lower to induce people to hold the larger quantity of money. Alternatively, at each level of interest rate the level of income has to be higher so as to raise the (transactions) demand for money and thereby absorb the extra money supplied.

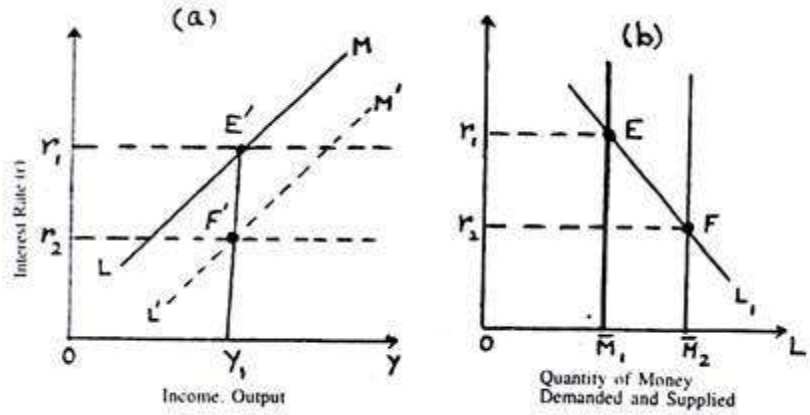


Fig. 38.8 Excess demand (EDM) amd supply (ESM) of the money

3. Positions off the LM Curve:

Above fig shows points off the LM curve. Points above and to the left of the curve correspond to an excess supply of money; points below and to the right, to an excess demand for money.
Starting from point E in part (a), an increase in income takes us to point H. At H' in part (b) there is an excess demand for money—and thus at H in part (a), there is an excess demand for money. By similar argument, we can start at F' and move to G' at which the level of income is lower. This creates an excess supply of money.

The following are the major points about the LM curve:

1. The LM curve is the schedule of combinations of interest rates and levels of income such that the money market is in equilibrium.
2. The LM curve is positively sloped. Given the fixed money supply, an increase in the level of income, which increases the quantity of money demanded, has to be accompanied by an increase in the interest rate. This reduces the quantity of money demanded and thereby maintains money market equilibrium.
3. An increase in money supply shifts the LAI curve to the right.
4. At all points to the right of the LAI curve, there is an excess demand for money, and at points to its left, there is an excess supply of money.

Macro-Economic General Equilibrium:

We may now discuss the joint equilibrium of both markets in order to see how output and interest rates are determined simultaneously. For simultaneous equilibrium, interest rates and income levels have to be such that both the goods market and the money market are in equilibrium.
Fig. 38.9 shows that the interest rate and the level of output are determined by the interaction of the money (LM) and commodity (IS) markets. Both markets clear at point E. Interest rates and income levels are such that the public holds the existing quantity of money, and planned spending (or desired expenditure) equals output (GNP).

Changes in the Equilibrium Levels of Income and the Interest Rate:

The equilibrium levels of income and interest rate change when either the IS curve or the LM curve shifts to a new position (either to the right or to the left). Fig. 38.10, for example, shows the effects of an increase in autonomous spending (such as autonomous investment) on the equilibrium levels of income and the interest rate. An increase in autonomous spending shifts the IS schedule to the right.

As a result national income increases, and the equilibrium level of national income rises. But the increase in income (ΔY) is less than that given by the Keynesian investment multiplier [m (ΔI] because interest rates increase and choke off investment demand.

The reason is easy to find out. The increase in autonomous spending no doubt tends to increase the level of income. But an increase in income increases the demand for money.

With a fixed supply of money, the interest rate has to rise to ensure that the demand for money stays equal to the fixed supply. When the interest rate rises, investment spending is reduced because investment is negatively related to the rate of interest (dl/dr < 0).

Adjustment toward Equilibrium:

Suppose our hypothetical economy were initially at a point like E in Fig. 38.10 and that one of the curves then shifted, so that the new equilibrium was at a point like F. How would that new equilibrium actually be reached? The adjustment would involve changes in both the interest rate and the level of income.

Here we make two assumptions:

(1) Since prices are assumed to remain fixed, when demand increases output increases, and output falls when demand falls. This follows from the Keynesian theory of income determination.

(2) The interest rate rises when there is an excess demand for money and falls when there is an excess supply of money. (This follows from the Keynesian liquidity preference theory). Fig. 38.11 shows how they move over time. Four regions are shown in this diagram and they are characterized in Table 38.1.

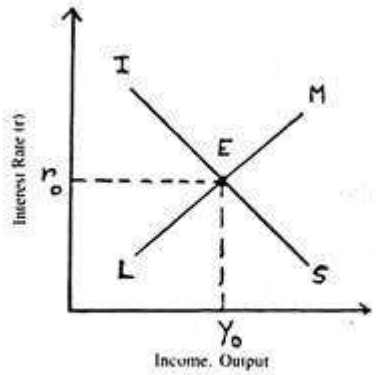


Fig. 38.9 Simultaneously equilibrium of goods market and money market

We know (from Fig. 38.8) that there is an excess supply of money above the LM curve, and hence we show ESM in regions I and II in Table 38.1. Similarly we know (from Fig. 38.4) that there is

excess demand for goods below the IS curve. Hence, we show EDG for regions II and III in Table 38.1. The remaining entries of Table 38.1 can be explained in a similar way.

The directions of adjustments are represented by arrows. Thus, for example, in region IV we have an excess demand for money, which causes interest rates to rise as other assets (including stocks and bonds) are sold off for money and their prices decline.

The rising interest rates are represented by the upward-pointing arrow. There is also an excess supply of goods in region IV and, accordingly, involuntary inventory accumulation, to which producing units (firms) respond by reducing output. Declining output is indicated by the leftward-pointing arrow.

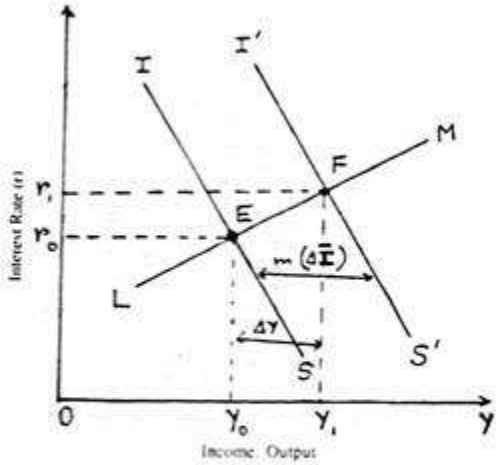


Fig. 38.10 Effect of an increase in autonomous investment on Y and r

The adjustments shown by the arrows will lead ultimately, perhaps in a cyclical manner, to the equilibrium point E. For example, starting from F, we show the economy moving to E, with income and interest rate increasing along the adjustment path indicated.

Table 38.1 Disequilibrium and the process of adjustment

	(Goods Market)		(Money Market)	
Region	Disequilibrium	Adjustment: output	Disequilibrium	Adjustment: interest rate
I	ESG	Falls	ESM	Falls
II	EDG	Rises	ESM	Falls
III	EDG	Rises	EDM	Rises
IV	ESG	Falls	EDM	Rises

In short, income and interest rates adjust to the disequilibrium in goods markets and assets (money) markets. Specifically, interest rates fall when there is an excess supply of money and rise when there is an excess demand. Income rises when aggregate demand for goods exceeds output, and falls when aggregate demand is less than output. The system ultimately moves to the equilibrium point at E.

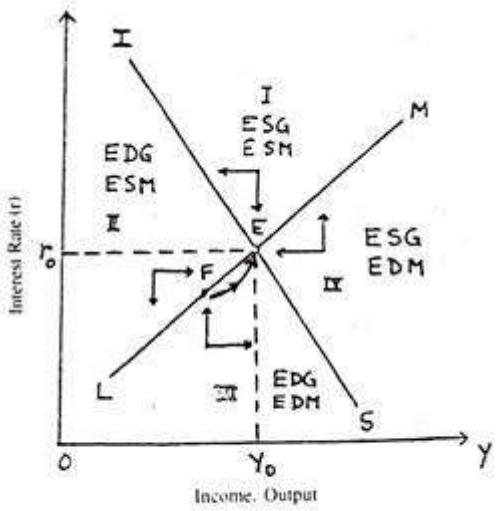


Fig. 38.11 Disequilibrium and dynamics in both markets

THEORY OF RENT

Definition and Meaning of Rent:

The term '***rent***' is an unfortunate one. Its meanings in Economics differ from the ordinary usage. In the every day speech, the term, rent is applied to the periodic payments made regularly for the hire of a particular asset.

For example, the payments made by a tenant to the owner of a house, or factory or land on weekly, monthly, or yearly basis is a rent in the popular sense.

In Economics:

"The concept of rent or to be more precise '***economic rent***' is used in a special sense. According to the classical economists, rent is a price of land. It is a payment made by a tenant farmer to the landlord for the use of original and Indestructible powers of the soil".

Modern Concept of Rent:

The modem economists do not use the concept of economic rent in the restricted some. They apply rent to all the factors of production which do not have a perfect elastic supply. According to them:

"Economic rent is a surplus or excess over the transfer earnings".

In the words of **Building:**

"Economic rent may be defined an any payment to a unit of production which Is in excess of the minimum amount necessary to keep that factor In its present occupation".

Example:

For example, a typist is ready to work for $4600 per month in a college but he is paid $4900 per month. This is because of the fact that the market demand for the typists is greater than its supply. So long as the supply cannot be adjusted to demand the typist will continue earning a payment in excess of $4600 of the amount which is necessary to keep him in that occupation. This monthly surplus money of $300 (4900 - 4600 = $300) is an economic rent.

Ricardian Theory of Rent/Ricardian Model of Rent:

Definition:

The ***theory of economic rent*** was first propounded by the English Classical Economist David Ricardo (1773 -1823). David Ricardo in his book. "Principles of Political Economy and Taxation", defined rent as that:

"Portion of the produce of the earth which is paid to a landlord on account of the original and indestructible powers of the soil, Ricardo in his theory of rent has emphasized that rent is a reward for the services of land which is fixed in supply. Secondly, it arises due to original qualities of land which are indestructible". (The original indestructible powers of the soil include natural soil, fertility, mineral deposits, climatic conditions etc., etc.).

Assumptions:

(i) Rent Under Extensive Cultivation.
(ii) Rent Under Intensive Cultivation.

Explanation and Example of Ricardian Theory of Rent:

Rent Under Extensive Cultivation:
According to Ricardo:
"All the units of land are not of the same grade. They differ in fertility and location. The application of the same amount of labor, capital and other cooperating resources give rise to difference in productivity. This difference in productivity or the surplus which arises on the superior units of land over the inferior units is an economic rent".

The Ricardian theory of rent is explained by taking an example:

Schedule:

Grades of Land	Yield in Quintals per Acre	Price per Quintal ($)	Total Return ($)
A	50	50	2500
B	35	60	2100
C	20	70	1400
D	15	80	1200

In the above schedule, we assume that there are four grades of land A, B, C and D in an uninhabited country. A grade land is more fertile than B grade land. B grade land is superior to C grade and so is C grade to D grade land.

Following Ricardo let us assume, a batch of settlers migrate to this island. They begin cultivating A grade land which yield 50 quintals of wheat per acre. Let us suppose now that the population of that country increases and A grade land is not sufficient to meet the food requirements of the growing population. The inhabitants of that country shall then have to bring under cultivation B grade land. With the identical amounts of labor and capital. B grade land yields 35 quintals of wheat per acre. A surplus of 15 quintal of wheat {50 - 35 = 15) which arises with the same outlay on A grade land is an economic rent. B grade land being a marginal land gives no rent. When owing to the pressure of growing population and a rise in demand for food, C grade land is brought under cultivation, it yields only 20 quintals of wheat with the identical amount of labor and capital. With the cultivation of C grade land, the economic rent of A grade land is now raised to 30 quintals per acre: (50 - 20 = 30) and that of B grade land 15 quintals of wheat per acre. C grade land is a no rent land as it is cultivated at the margin.

If the expenses of production on A grade of land yielding 50 quintals of wheat are $2500 and the market price of total yield on A grade land is also $2500, then A grade land only will be brought under cultivation. A grade land here is the marginal land. If the price of agricultural produce increases ($60 per quintal) and the expenses of producing wheat on B grade land are equal to the market price of the produce i.e.. $2100, then B grade of land which was hitherto neglected would be brought under cultivation. B grade land then becomes the marginal land. Similarly, D grade land will be the marginal land when it compensates the cultivator by giving a yield of $1200, and enjoys no surplus over cost. Marginal land is thus not fixed. It varies with the changes in the price of agricultural produce. If population increase still further and the demand for food increases, then D grade land will be brought under plough. The surplus or economic rent of A grade land will go up to 35 quintals (50 - 15 = 35), of B grade 20 quintals, of C grade 5 quintals. D grade land being the marginal land yields no rent.

Diagram:
The Ricardian model is now explained with the help of a diagram:

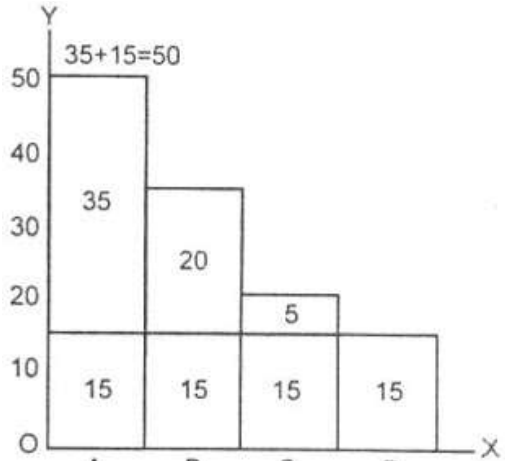


Fig. 19.1 Grades of Land

In the figure (19.1), the various grades of land in the descending order of fertility are plotted on OX axis and yield per acre is shown on OY axis. The cultivated area due to pressure of population and the rising demand for food is pushed to D grade of land which is a marginal land. The owner of A grade of land gets a surplus, or economic rent of 35 quintals of wheat, of B, 20 quintals and on C grade, the rent is 5 quintals of wheat.

Rent Under Intensive Cultivation:

The theory of rent which has been discussed above applies to Intensive margin of cultivation. The surplus or economic rent also arises to the land cultivated intensively. This occurs due to the operation of the famous law of diminishing returns.

When the land is cultivated intensively, the application of additional doses of labor and capital brings in less and less of yield. The dose whose cost just equates the value of marginal return is regarded marginal *or* no rent dose. The rent arises on all the infra-marginal doses.

For example, the application of first unit of labor and capital to a plot of land yields 25 quintals of wheat, the 2nd dose gives 15 quintals of wheat and with third it drops down to 10 quintals only, the farmer applies only 3 doses of labor and capital as the total outlay on the third does equals its return. The rent when measured from the third or marginal dose is 15 quintal (25 - 10 = 15) on first dose and 5 quintal on second dose (15 -10 = 5). The third dose is a no rent dose.

Criticism on Ricardian Theory of Rent:

(i) No Original and Indestructible Power: Ricardo is of the opinion that rent is paid due to the original and indestructible powers of the soil. It is pointed out that there are no powers of the soil which are indestructible. As we go on cultivating a piece of land time and again, its fertility gradually diminishes. To this criticism, it is replied that there are properties of the soil, such as

climate situation, sunshine, humidity, soil composition, etc., which are infect original and indestructible.

(ii) Wrong Assumption of 'No Rent Land': Ricardo assumes the existence of no-rent land. A land which just meets the cost of cultivation. The modern economists are of the opinion that if a plot of land can be put to several uses, then it does yield rent.

(iii) Rent Enters Into Price: According to Ricardo, rent does not enter into price. The modern economists are of the opinion that it does eater into price.

(iv) Wrong Assumption of Perfect Competition: Ricardo is of the opinion that perfect competition prevails between the landlord and the tenant, but in the actual world, it is imperfect competition which is the order of the day.

(v) All Lands are Equally Fertile: Ricardo assumes that rent arises due to difference in the fertility of the soil. But the modern economists assert that if all lands are equally fertile, even then the rent will arise. The rent can arise: (a) if the produce is not sufficient to meet the requirements of the people, and (b) due the operation of the law of diminishing returns.

(vi) Historically Wrong: Carey and Roscher have criticized the orders of cultivation assumed by Ricardo. They are of the opinion that it is not necessary that A grade land will be cultivated first, even if it lies far away from the city. To this it is replied by Walker that when Ricardo uses the words 'best land' he means by it the land which is superior both in fertility and in situation.

(vii) Neglect of Scarcity Principle: It is pointed out by the modem economists that the concept of rent can be easily explained with the help of the scarcity principle and so there is no need to have a separate theory of rent.

Modern Theory of Rent:

Definition and Explanation:
The modern economists like Pareto, Mrs. Joan Robinson, Boulding, Sligler, Shepherd, have tried to simplify and generalize the ricardian theory of rent. According to them, the Ricardian theory of rent is too closely related to land. This creates on impression that rent is a peculiar earning of land only. The fact, however, is that other factors of production i.e., labor, capital and entrepreneurship may also be earning economic rent. The determination of rent, the modem economists say, can be explained in the same manner as the reward of other factors, that is by demand and supply forces.

Demand and Supply Analysis:
(A) Demand For a Factor:

The demand for a factor which may be land, labor or capital is a derived demand. Land, say for instance, is demanded for its produce. The higher the produce, the greater is the demand for land. A firm will pay rent equal to the marginal revenue productively of land. The rent diminishes as

more land is used due to the operation of law of diminishing returns. The demand curve of a factor is, therefore, negatively sloped which means more land will be used only at lower rents, other things of course remaining the same.

Supply of a factor. The supply of land to a particular use (say industry) is quite elastic. It can be shifted to other uses by offering higher rent than that being earned by it now. The supply of a factor (to an industry) is, therefore, rent elastic. If higher rent is paid, the supply of a factor can be increased by withdrawing it from other uses. The supply curve of a factor (industry) slopes upward to the right.

Diagram:

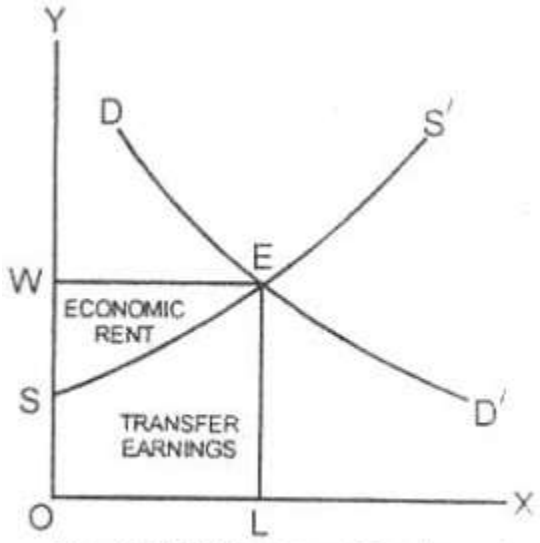


Fig. 19.2 Workers Employed Economic Rent of Workers

Determination of rent. The economic rent is determined by the intersection of demand and supply curves for a factor. In this figure (19.2), the demand curve for a factor say labor in a particular industry is DD/ and the supply curve of workers is SS/. The wage rate or factor price of labor as determined by the market forces is OW. The total workers employed in a particular industry at OW wage rate is OL. The total earning of the workers employed is equal to the area OWEL. At wage rate OW, there are workers who would work, at lower pay but they are also paid at OW wage rate. Those workers whose transfer earnings are less than this wage rate will be getting economic rent. The total economic rent earned by all the intra marginal workers is equal in the area WES. The marginal worker i.e., Lth worker is not obtaining any rent or surplus.

(B) Rent is a Surplus Return:

The modern economists are also of the view that rent as a surplus can be earned by other factors also. It is not peculiar to land alone as explained by Ricardo. The ***modern theory of rent*** is that it is

the difference between the actual earning of a factor unit over its transfer earnings. The transfer earnings of a factor of production is the minimum payment required for preventing that factor for transferring it to some other use. **It is called the factor supply price in its present occupation.**

For example, a worker earns $6000 per month in a factory. In the next best employment, he can get $5000 only per month. The surplus or excess of $1000 which a worker is earning over and above the minimum payment necessary for inducting him to work in the present occupation is the economic rent.

Economic Rent Depends on the Elasticity of Supply of the Factor of Production:

The proportion of the income of a factor that consists of economic rent depends on the elasticity of supply of the factor of production which may be (i) totally inelastic supply (ii) perfectly elastic supply and (iii) less than perfectly elastic supply.

(i) Perfectly elastic supply. When the supply of a factor of production is perfectly elastic, then none of its income is economic rent. Its entire income is transfer earnings.

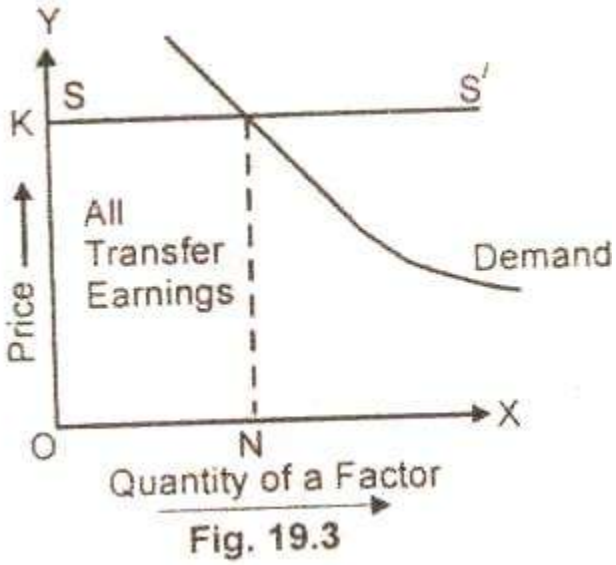


Fig. 19.3

In the Fig. 19.3, the supply curve SS/ is a horizontal line. Whatever the amount of factor demanded, the supply price remains at OS. Hence, it earns no surplus in the nature of rent.

(ii) Totally inelastic supply. When the supply of a factor is totally inelastic, then its transfer earnings is zero. The entire income is economic rent.

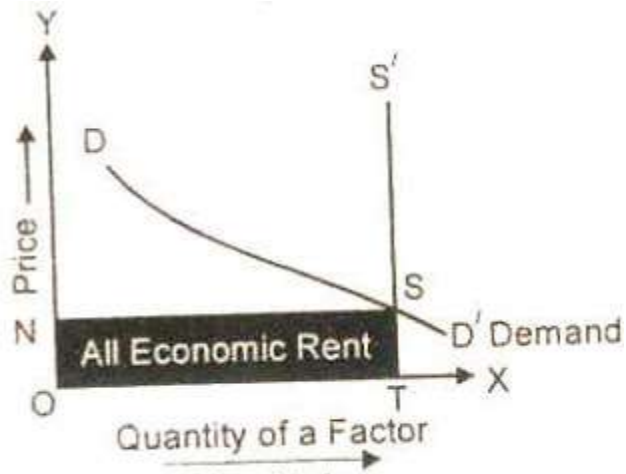


Fig. 19.4

In the fig. 19.4, the elasticity of the supply of factor of production is zero. It does not increase at all as its demand increases. The supply curve is vertical. The entire of factor income is a surplus which is shown by area ONST.

(iii) Less than perfectly elastic supply. If the supply of a factor of production is neither perfectly elastic nor perfectly inelastic as illustrated in fig.19.5, then some part of the factor income is economic rent and the other part is transfer earnings.

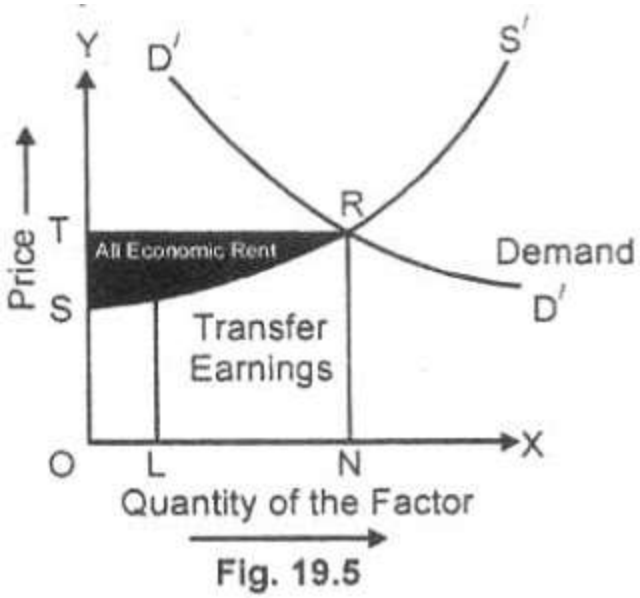


Fig. 19.5

In Fig. 19.5, the supply curve SS/ of a factor, say labor, is positively sloped. A firm must pay at least OS price to attract OL units of labor to the given use. If supply of a factor is to rise, the factor must be paid higher and higher wages to attract more units. The demand curve DD/(measuring the marginal revenue product of the labor) interests the supply curve at
point R.

Now at OT equilibrium price, Quantity of the Factor ON units of labor are demanded and supplied. Since all the units of the Fig. 19.5 factor up to ON are paid the market price OT, the intra marginal units earn surplus above their supply price. The marginal unit i.e., Nth is not getting any rent. Here the total income of the factor is equal to the area OTRN. It is made up of its economic rent equal to the area STR and its transfer earnings equal to the area OSRN.

THEORY OF UNEMPLOYMENT

Types of unemployment

1) **Frictional unemployment**: Frictional unemployment is a kind of unemployment that occurs when people are "between jobs" or are looking for their first jobs. It is a kind of unemployment that occurs when the economy is trying to match people and jobs correctly. So, if you get fired for poor work, if you quit because you dislike your job, or if you are just looking for your first job, you are frictionally unemployed.

2) **Seasonal unemployment**: Seasonal unemployment occurs when people are not working because their jobs only exist at some times of the year. Agricultural and construction workers are examples of this type of unemployment.

3) **Structural unemployment** Structural unemployment occurs when a given set of skills is no longer needed in a given economy. For example, E.g. closure of mines, left many miners struggling to find suitable work. For example, there may be jobs available in the service sector, but unemployed miners don't have the relevant skills to be able to take the jobs

4) **Cyclical unemployment**: Cyclical unemployment, which economists say is the worst kind. In this kind of unemployment, people are out of work because the economy has slowed and there is no demand for whatever the workers make. This sort of unemployment occurs during recessions.

5) **Voluntary unemployment:** is a situation when a person is unemployed because of not being able to find employment of his/her own choice.It is a situation when a person is unemployed. Sometimes people reject employment opportunities if they do not receive desired wages or if they are not offered the kind of work they wish to do.

6) **Disguised Unemployment:** Disguised unemployment is the most widespread type of unemployment in under-developed countries. In under-developed countries, the stock of capital does not grow fast. The capital stock has not been growing at a rate fast enough to keep pace with the growth of population, the country's capacity to offer productive employment to the new entrants to the labour market has been severely limited. This manifests itself generally in two ways: (i) the prevalence of large-scale unemployment in the urban areas; and (ii) in the form of growing numbers engaged in agriculture, resulting in 'disguised unemployment'

CLASSICAL THEORY OF UNEMPLOYMENT

The classical theory of employment is based on the following assumptions.

1. There is existence of full employment without inflation.
2. There is a closed laissez-faire capitalistic economy.

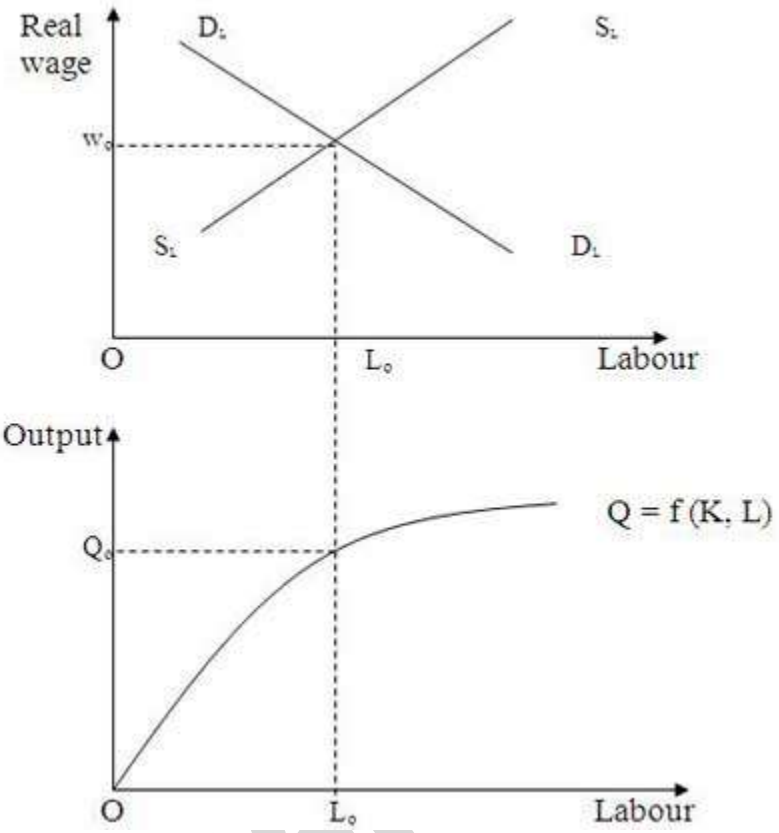
3. There is perfect competition in labor market and product market.
4. Labor is homogenous.
5. Total output of the economy is divided between consumption and investment expenditure.
6. The quantity of money is given.
7. Wages and prices are flexible.
8. Money wages and real wages are directly related and proportional.

The main Postulates of classical theory are:

1) The basic contention of classical economists was that if wages and prices were flexible, a competitive market economy would always operate at full employment. That is, economic forces would always be generated so as to ensure that the demand for labour was always equal to its supply.

2) In the classical model the equilibrium levels of income and employment were supposed to be determined largely in the labour market. At lower wage rate more workers will be employed. That is why the demand curve for labour is downward sloping. The supply curve of labour is upward sloping because the higher the wage rate, the greater the supply of labour.

In the following figure the equilibrium wage rate (w_o) is determined by the demand for and the supply of labour. The level of employment is OL_o.



The lower panel of the diagram shows the relation between total output and the quantity of the variable factor (labour). It shows the short-run production function which is expressed as Q = f (K,

L), where Q is output, K is the fixed quantity of capital and L is the variable factor labour. Total output Q_o is produced with the employment of Lo units of labour. According to classical economists this equilibrium level of employment is the 'full employment' level. So the existence of unemployed workers was a logical impossibility. Any unemployment which existed at the equilibrium wage rate (W_o) was due to frictions or restrictive practices in the economy in nature.
3) The classical economists believed that aggregate demand would always be sufficient to absorb the full capacity output Q_o. In other words, they denied the possibility of under spending or overproduction. This belief has its root in Say's Law.

(a) Say's Law: According to Say's Law supply creates its own demand, i.e., the very act of producing goods and services generates an amount of income equal to the value of the goods produced. Say's Law can be easily understood under barter system where people produced (supply) goods to demand other equivalent goods. So, demand must be the same as supply. Say's Law is equally applicable in a modern economy. The circular flow of income model suggests this sort of relationship. For instance, the income created from producing goods would be just sufficient to demand the goods produced.

(b) Saving-Investment Equality: There is a serious omission in Say's Law. If the recipients of income in this simple model save a portion of their income, consumption expenditure will fall short of total output and supply would no longer create its own demand. Consequently there would be unsold goods, falling prices, reduction of production, unemployment and falling incomes. However, the classical economists ruled out this possibility because they believed that whatever is saved by households will be invested by firms. That is, investment would occur to fill any consumption gap caused by savings leakage. Thus, Say's Law will hold and the level of national income and employment will remain unaffected.

(c) Saving-Investment Equality in the Money Market: The classical economists also argued that capitalism contained a very special market – the money market – which would ensure saving investment equality and thus would guarantee full employment. According to them the rate of interest was determined by the demand for and supply of capital. The demand for capital is investment and its supply is saving. The equilibrium rate of interest is determined by the saving-investment equality. Any imbalance between saving and investment would be corrected by the rate of interest. If saving exceeds investment, the rate of interest will fall. This will stimulate investment and the process will continue until the equality is restored. The converse is also true.

(d) Price Flexibility: The classical economists further believed that even if the rate of interest fails to equate saving and investment, any resulting decline in total spending would be neutralized by proportionate decline in the price level. That is, Rs 100 will buy two shirts at Rs 50, but Rs 50 will also buy two shirts if the price falls to Rs 25. Therefore, if households saves more than firms would invest, the resulting fall in spending would not lead to decline in real output, real income and the level of employment provided product prices also fall in the same proportion.

(e) Wage Flexibility: The classical economists also believed that a decline in product demand would lead to a fall in the demand for labour resulting in unemployment. However, the wage rate

would also fall and competition among unemployed workers would force them to accept lower wages rather than remain unemployed. The process will continue until the wage rate falls enough to clear the labour market. So a new lower equilibrium wage rate will be established. Thus, involuntary unemployment was logical impossibility in the classical model.

Keyne's Criticism of Classical Theory:

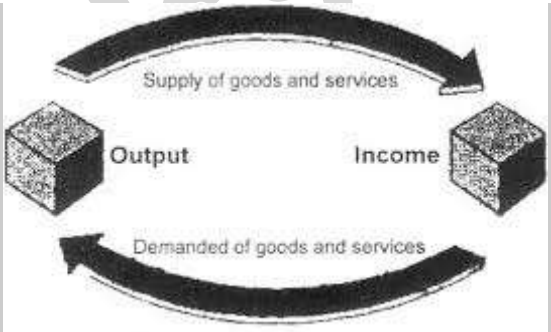
J.M. Keynes criticized the classical theory on the following grounds:

1. According to Keynes saving is a function of national income and is not affected by changes in the rate of interest. Thus, saving-investment equality through adjustment in interest rate is ruled out. So Say's Law will no longer hold.
2. The labour market is far from perfect because of the existence of trade unions and government intervention in imposing minimum wages laws. Thus, wages are unlikely to be flexible. Wages are more inflexible downward than upward. So a fall in demand (when S exceeds I) will lead to a fall in production as well as a fall in employment.
3. Keynes also argued that even if wages and prices were flexible a free enterprise economy would not always be able to achieve automatic full employment.

SAYS LAW OF MARKET

1) Say's Law is the foundation of classical economics. Assumption of full employment as a normal condition of a free market economy is justified by classical economists by a law known as 'Say's Law of Markets'. It was the theory on the basis of which classical economists thought that general over-production and general unemployment are not possible.

2) Say's law states that the production of goods creates its own demand



The basic consumptions of says law are :

(a) Perfectly competitive market and free exchange economy.

(b) Free flow of money incomes. All the savings must be immediately invested and all the income must be immediately spent.

(c) Savings are equal to investment and equality must bring about by flexible interest rate.

(d) No intervention of government in market operations, i.e., a laissez faire economy, and there is no government expenditure, taxation and subsidies.

(e) Market size is limited by the volume of production and **aggregate demand is equal to aggregate supply.**

(f) It is a **closed economy.**

The Says law has the following implications:

1. **Production creates market (demand) for goods**: when the producer obtained the various inputs to be used in the production process they generate the necessary income.

2**. Barter system is its basis**: in its original form the law is applicable to a barter economy where goods are ultimately sold for goods. Therefore, whatever produced is ultimately consumed in the economy.

3. **General over production is impossible**: if the production process is continuing under normal condition, then there will be no deficiency for the producer in the market. According to say, work being unpleasant no person will work to make a product unless he wants to exchange it for some other product which he desires therefore the very act of supplying goods implies a demand for them. In such a situation there cannot be general overproduction because the supply of goods will not exceed demand as a whole.

4**. Saving investment Equality**: Income occurring to the factors owners in the form of rent, wages and interest is not spent on consumption but some proportion out of it is saved which is automatically invested for further production.

5**. Rate of interest as a determinant factor**: If there is any gap between saving and investment, the rate of interest brings about the equality between two

6. **Flexibility between interest and wage rate**: The theory assumes the part of income is saved and available for investment. If at any point of time saving is more then investment, the rate of interest will fall, which will result in low savings and more investments. At a lower rate of interest, household will like to save less, where as producers will like or invest more and economy will be in equilibrium.If there are unemployed persons in an economy, wage rate will fall. This will induce entrepreneurs to demand more labor. Ultimately all labor will be absorbed. The economy will be in full employment equilibrium.

This view suggests that the key to economic growth is not increasing demand, but increasing production. Say's views were expanded on by classical economists, such as James Mill and David Ricardo.

Pigou's Formulation of Says law

1. According to Professor Pigou, the unemployment which exists at any time is because of the fact that changes in demand conditions are continually taking place and that frictional resistances prevent the appropriate wage adjustment from being made instantaneously.
2. Thus, according to classical theory, there could be small amounts of 'frictional unemployment' attendant on changing from one job to another but there could not be 'involuntary unemployment' for a long period.
3. According to Professor Pigou, if people were unemployed, wages would fall until all seeking employment were in fact employed.

4. Involuntary unemployment which was found at times of depression was because of the fact that wages were kept too high by the actions of labour unions and governments. Therefore, Professor Pigou advocated that a general cut in money wages at a time of depression would increase employment.
5. According to Pigou, perfectly elastic wage policy would abolish fluctuations of employment and would ensure full employment.

Criticism of Classical Theory

1. **Supply may not create its own demand** when a part of the income is saved. Aggregate demand is not always equal to aggregate supply.
2. **Employment in a country cannot be increased by cutting general wages.**
3. **There is no direct relationship between wages and employment.**
4. **Interest rate adjustments cannot solve savings-investment problem.**
5. Classical economists have made the economy completely self-adjusting and self-reliant. **An economy is not so self-adjusting and government intervention is unobvious.**
7. Classical economists have made the wages and prices so much flexible. **In practical, wages and prices are not so flexible. It will create chaos in the economy.**
8. **Money is not a mere medium of exchange.** It has an essential role in the economy.
9. **The classical theory has failed to explain the occurrence of trade cycles.**

KEYNESIAN THEORY OF EMPLOYMENT

1) Keynes has strongly criticised the classical theory in his book 'General Theory of Employment, Interest and Money'. His theory of employment is widely accepted by modern economists. Keynesian economics is also known as 'new economics' and 'economic revolution'. Keynes has invented new tools and techniques of economic analysis such as consumption function, multiplier, marginal efficiency of capital, liquidity preference, effective demand, etc.

2) In the short run, it is assumed by Keynes that capital equipment, population, technical knowledge, and labour efficiency remain constant. That is why, according to Keynesian theory, volume of employment depends on the level of national income and output. Increase in national income would mean increase in employment. The larger the national income the larger the employment level and vice versa. That is why, the theory of Keynes is known as 'theory of employment' and 'theory of income'.

Keynes Theory can be explained as:

1) **Effective Demand:** According to Keynes, the level of employment in the short run depends on aggregate effective demand for goods in the country. Greater the aggregate effective demand, the greater will be the volume of employment and vice versa. According to Keynes, the unemployment is the result of deficiency of effective demand. Effective demand represents the total money spent on consumption and investment. The equation is:

Effective demand = National Income (Y) = National Output (O)

The deficiency of effective demand is due to the gap between income and consumption. The gap can be filled up by increasing investment and hence effective demand, in order to maintain employment at a high level.

2) According to Keynes, the level of employment in effective demand depends on two factors:

(a) Aggregate supply function, and
(b) Aggregate demand function.

(a) Aggregate supply function:

1. According to Dillard, the minimum price or proceeds which will induce employment on a given scale, is called the 'aggregate supply price' of that amount of employment.
2. If the output does not fetch sufficient price so as to cover the cost, the entrepreneurs will employ less number of workers.
3. Therefore, different numbers of workers will be employed at different supply prices.
4. Thus, the aggregate supply price is a schedule of the minimum amount of proceeds required to induce varying quantities of employment.
5. We can have a corresponding aggregate supply price curve or aggregate supply function, which slopes upward to right.

(b) Aggregate demand function:

1. The essence of aggregate demand function is that the greater the number of workers employed, the larger the output. That is, the aggregate demand price increases as the amount of employment increases, and vice versa.
2. The aggregate demand is different from the demand for a product. The aggregate demand price represents the expected receipts when a given volume of employment is offered to workers.
3. The aggregate demand curve or aggregate demand function represents a schedule of the proceeds of the output produced by different methods of employment.

Significance of Keynesian Theory:

1. Keynes has given a new approach, i.e., **Macro-approach** to the field of economics. His theory has several names: theory of income and employment, demand-side theory, consumption theory, and macro-economic theory. In fact, he has brought about a revolution in economic analysis, often known as 'Keynesian Revolution'.

2. Keynes' theory has **completely demolished the idea of full-employment** and forwards the idea of under-employment equilibrium. He states that employment level in the economy can only be increased by increasing investment.

3. The **new economic tools and techniques** developed by Keynes have enabled the today's economists to draw correct conclusions on the economic situation of a country. Such tools are consumption function, multiplier, investment function, liquidity preference, etc.

4. Keynes has **integrated the theory of money with the theory of value and output.**

5. Keynes has first time introduced a **dynamic economic theory**, in order to depict more realistic situation of the economy.

6. He also states the reasons of excess or deficiency of aggregate demand through **inflationary and deflationary gap analysis**.

7. Keynes' theory is a general theory and therefore, can be **applied to all types of economic systems.**

8. Keynes **influenced on practical policies** and criticised the policy of surplus budget. He advocated deficit financing, if that sited the economic situation in the country.

9. Keynes has **emphasised on suitable fiscal policy** as an instrument for checking inflation and for increasing aggregate demand in a country. He advocated extensive public work programmes as an integral part of government programmes in all countries for expanding employment.

10. He **advised several monetary controls** for the central bank, which in turn will act as the instrument of controlling cyclical fluctuations.

11. Keynesian theory has played **a vital role in the economic development** of less-developed countries.

12. He **rejected the theory of wage-cut** as a means of promoting full-employment.

13. Keynes' theory has given rise to the **importance of social accounting or national income accounting.**

Consumption Function

The consumption function is a mathematical formula laid out by famed economist John Maynard Keynes. The formula was designed to show the relationship between real disposable income and consumer spending, the latter variable being what Keynes considered the most important determinant of short-term demand in an economy.

Definition:

Consumption function refers to the functional relationship between aggregate consumption and aggregate income C = f(y). The schedule shows the various amount of consumption at various levels of income. This shows that when income increases, consumption also increases, but in a lesser proportion (i.e.) the proportion of income spent on consumption goes on falling as income increases.

Factors Affecting consumption function

(A) Objective factors influencing the consumption function:

- First of all the households consumption expenditure depends on their income level. The consumption expenditure can be partly autonomous and partly dependent on disposable income. Disposable income is income minus personal or direct taxation. Thus C = f (Yd) where C = Consumption, Yd = disposable. Keynes psychological law status that as income increases, consumption also increases - but less than proportionately. Every increased income is generally divided into consumption and savings.
- Secondly consumption depends upon the distribution of national income. If the national income is properly distributed, then people's income that is the per capita income will be high and they will consume more.
- **Price level:** The consumption pattern of the individuals not only depend upon the money income, but also the price level. Thus, during inflation, their consumption power is less and vice versa.
- **Wages:** The consumption pattern largely depends upon the wages also, whether their remuneration is received in the form of cash or in kind.
- **Unexpected profits and losses:** If the individuals are self employed people or business man, then their consumption pattern mostly depends on their profit and loss. Unexpectedly, if they gain more, then their consumption pattern is high.
- **Liquidity preference:** If people prefer to hold more and more liquid cash, then their present consumption will be low.

- **Rate of Interest:** If the interest is high, then people will forgo the present consumption and postpone it for a future date. Higher the rate of interest payable, lesser will be purchasing power. This will certainly reduce the consumption.
- **Future expectations:** If the demand for cash to make speculative gains is more, then the present consumption will be low.
- **Permanent income:** The people who have permanent income either from earned or unearned income, there consumption will be more.
- **Advertisement:** If the advertisement and publicity can induce the people more effectively, then the consumption of the people for such commodities will be more.
- **Credit facilities:** If goods can be purchased by taking loans, individuals spend more on consumption.

(B) Subjective factors influencing consumption function:
There are some psychological motives which encourage savings and discourage consumption.
They are as follows:
(a) Motive of precaution: The desire to save for meeting unforeseen emergencies in future.
(b) Motive of foresight: The desire to build reserves for meeting old age needs.
(c) Motive of calculation: The desire to save for earning interest.
(d) Motive of improvement: The desire to save for future progress.
(e) Motive of independence: The desire to save for attaining self reliance.
(f) Motive of pride: The desire to save for possessing wealth.
(g) Motive of enterprise: The desire to save for establishing business assets.

Motive which encourage savings among corporate sector:
(a) Motive of enterprise: The desire to create additional resources for further investment.
(b) Motive of liquidity: The desire to keep more liquid assets for meeting future emergencies.
(c) Motive of improvement: The desire to enjoy rising income.
(d) Motive of financial prudence: To arrange sufficient funds against depreciation

AVERAGE PROPENSITY TO CONSUME (APC)
The willingness to use a proportion of income (Y) for consumption (C) is known as average propensity to consume (APC): APC=C/Y As income increases, the average propensity to consume decreases. This is indeed observable in the fact that wealthy individuals consume a smaller proportion of their income than to poorer people who may in fact be force to receive money from others.

If the income of a family is Rs 50,000 and that family spends Rs 45,000 per year, the average propensity to consume is APC = 45,000/50,000 = .9 or 90%.

MARGINAL PROPENSITY TO CONSUME (MPC)
The marginal propensity to consume (MPC) is the proportion of additional consumption (dC) which will be taking place out of an increase in income (dY): MPC=dC/dY MPC is the slope of the consumption line. It is constant throughout reflecting a stable pattern of consumption in our society.

If the income of the family increases by Rs 1,000 and the family decides to buy an additional television worth Rs 600 with that new income, the marginal propensity to consume is MPC = 600/1000 = .6 or 60%.

SAVING

Saving is what is left from income after consumption is taken out. Saving is primarily determined by the level of real income. The higher the income, the more individuals are willing and able to save.

> Saving is what will permit consumption in the future. In today's society, a lot of saving is institutional. For instance, social security contributions and pension plan deductions are a form of saving.

AVERAGE PROPENSITY TO SAVE

The willingness of individuals to save (S) a proportion of their income is called average propensity to save (APS): APS=S/Y.

> If a family earns Rs 50,000 and saves Rs 5,000 each year, the average propensity to save is APS = 5,000/50,000 = .1 or 10%.

MARGINAL PROPENSITY TO SAVE (MPS)

The marginal propensity to save (MPS) is the proportion of additional saving (dS) out of an additional income (dY): MPS=dS/dY The marginal propensity to save is the slope of the savings line. Since income can only be consumed or saved, the sum of the marginal propensities to consume and to save is one: MPC+MPS=1.

> If a family has an increase in income of Rs 1,000 and decides to save Rs 400 of that increase, the marginal propensity to save is MPS = 400/1,000 = 0.4 or 40%.

Marginal efficiency of capital (for marginal efficiency of investment)

Marginal efficiency of capital (MEC) is a Keynesian concept. According to J. M. Keynes, nations output depends on its stock of capital. An increase in the stock of capital increases output. The question is how much increase in investment raises output'? Well, this depends on the productivity of new capital i.e. on the marginal efficiency of capital. Marginal efficiency of capital is the rate of return expected to be obtainable on a new capital asset over its life time.

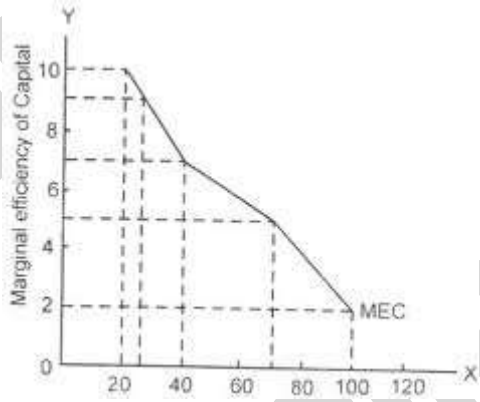
DEFINITION OF MEC:

1) J. M. Keynes defines marginal efficiency of capital as "the rate of discount which makes the present value of the prospective yield from the capital asset equal to its supply price"

2) The **marginal efficiency of capital** (MEC) is that rate of discount which would equate the price of a fixedcapitalasset with its present discounted value of expected income.

EXAMPLE: A businessman while investing in a new capital asset, examines the expected fate of net return (profit) on it during its lifetime against the supply price of capital asset (cost of capital asset) if the expected rate of profit is greater than the replacement cost of the asset. the businessman will invest the money in the project. For example, if a businessman spends Rs. 10,000 on the purchase of a new griding machine We assume further that this new capital asset continues to produce goods over a long period of time The net return (excluding meeting all expenses except the interest cost) of the griding machine is expected to be Rs. 1000 per annum. The marginal efficiency of capital will be 10%.According to J. **M.** Keynes, the behaviour of investors in respect of new investment depends upon the various stocks of capital available in the economy at a particular period of time As the stock of capital increases in the economy, the marginal efficiency of capital goes on diminishing. The MEC curve is negatively sloped as is shown in the figure

Investment (Rs. billion)	Marginal efficiency of capital
20	10%
25	9%
40	7%
70	5%
100	2%



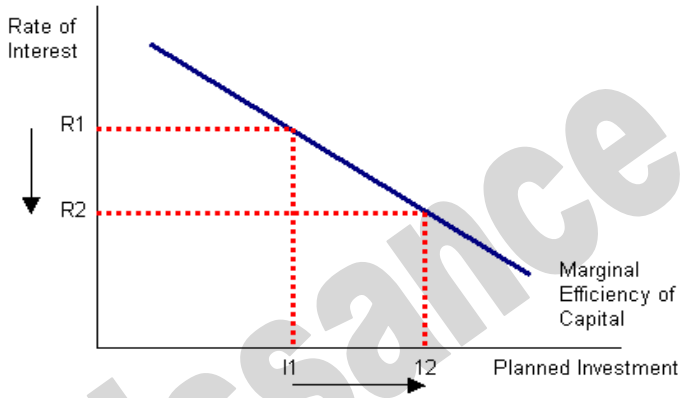
Volume of Investment →

In the above table, it is shown when stock of capital is equal to Rs. 20 billion, the marginal efficiency of capital is 10%. while at a capital stock of Rs 100 billion, it declines to 2%. This investment demand schedule when depicted graphically in figure 30.7 gives us the investment demand curve which goes on sloping downward from left to right.

MEC and the rate of interest.

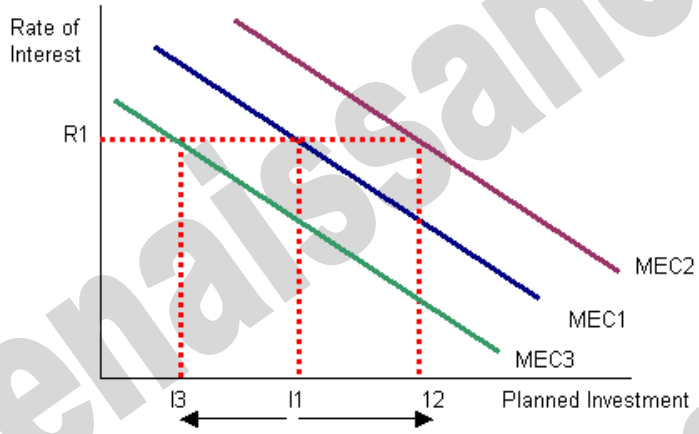
The MEC and the rate of interest are the two important factors which affect the volume of new investment in a country. An investor while making a new investment, weighs the MEC of new investment against the prevailing rate of interest As long as the MEC is higher than the rate of interest, the investment will be made till the MEC and the rate of interest are equalized For example, if the rate of interest is 7%, the induced investment will continue to be made till the MEC and the rate of interest are equalized. At 7% rate of interest, the new investment will be Rs. 40 billion. In case, the rate of interest comes down to 2%, the new investment in capital assets will be Rs. 100 billion. Summing up, if investment is to be increased in the country. either the rate of interest should go down or MEC should increase. The investment demand function is expressed as under. I = f(i, r), where i = investment demand, i = Rate of interest and r = expected rate of return or MEC.

The inverse relationship between investment and the rate of interest can be shown in a diagram (see below). The relationship between the two variables is represented by the marginal efficiency of capital investment (MEC) curve. A fall in the rate of interest from R1 to R2 causes an expansion of planned investment.



Shifts in the marginal efficiency of capital

Planned investment can change at each rate of interest. For example a rise in **the expected rates of return** on investment projects would cause an outward shift in the marginal efficiency of capital curve. This is shown by a shift from MEC1 to MEC2 in the diagram below. Conversely a fall in business confidence (perhaps because of fears of a recession) would cause a fall in expected rates of return on capital investment projects. The MEC curve shifts to the left (MEC3) and causes a fall in planned investment at each rate of interest.



UNIT IV
DEFINITION OF MONEY

1) **Meaning of Money** refers to the definition of money. Money is a token or item which acts as a medium of exchange that has both legal and social acceptance with regards to making payment for buying commodities or receiving services, as well as repayment of loans
2) Money refers both to currency, specifically a large number of currencies that circulate under the legal tender status, and different types of financial deposit accounts, for example savings accounts, demand deposits, as well as certificates of deposit.

Functions of Money

1) **Money as a Medium of Exchange:**
   The function of money as a medium of exchange solves all the difficulties of barter system. There is no necessity for a double coincidence of wants in the money economy. The man with cow who wants to purchase cloth need not seek a cloth seller who wants a cow. He can sell his cow in the market for money and then purchase cloth with the money obtained.
2) **Money as a Measure of Value:**
   In money economy values of all commodities are expressed in terms of money. Money is like the yard stick of cloth merchant, as yard-stick measures all varieties of cloth, money measures the value of all varieties goods. This function of money makes transactions easy and also fair
3) **Standard of Deferred Payment:**
   In a money economy the contracts are made for future payments terms of money instead of goods and promise to repay the loan in money. In this way money is the standard of deferred payments. This function stimulates all kinds of economic activities which depend on borrowed money.
4) **Money as a Store of Value:**
   Goods cannot be stored because they are perishable. People receive their incomes in money form and keep their savings in money form in banks. In this way, money is used to store value of commodities.

Supply-Demand theory of money or Quantity theory of money

In monetary economics, the quantity theory of money states that money supply has a direct, proportional relationship with the price level.

The determinants of money demand are infinite. In general, consumers need money to purchase goods and services. The most important variable in determining money demand is the average price level within the economy. If the average price level is high and goods and services tend to cost a significant amount of money, consumers will demand more money. If, on the other hand, the average price level is low and goods and services tend to cost little money, consumers will demand less money.

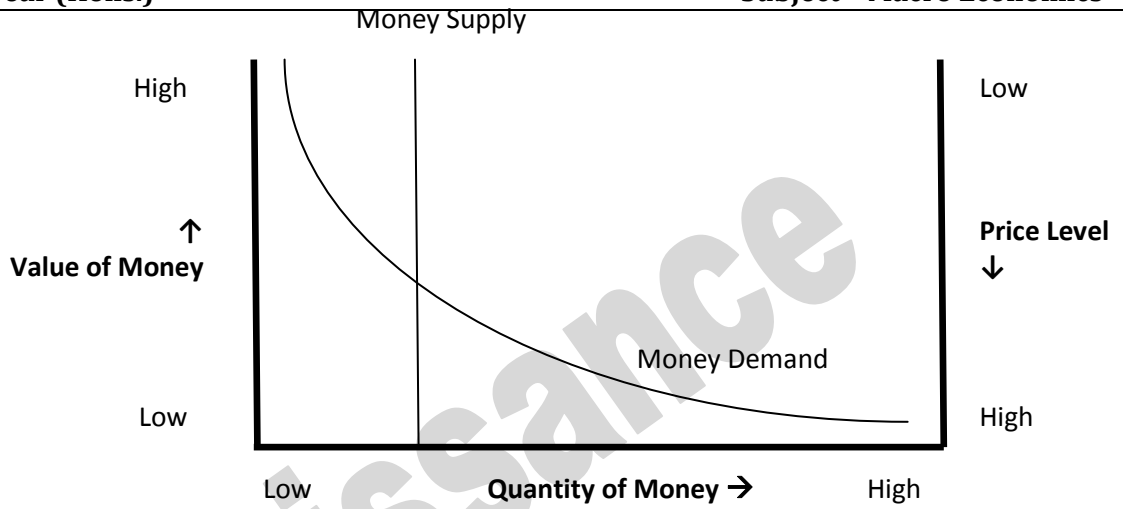


Figure: Determination of value of money

The value of money is ultimately determined by the intersection of the money supply, as controlled by the central bank, and money demand, as created by consumers. The above figure depicts the money market in a sample economy. The money demand curve slopes downward because as the value of money decreases, consumers are forced to carry more money to make purchases because goods and services cost more money.

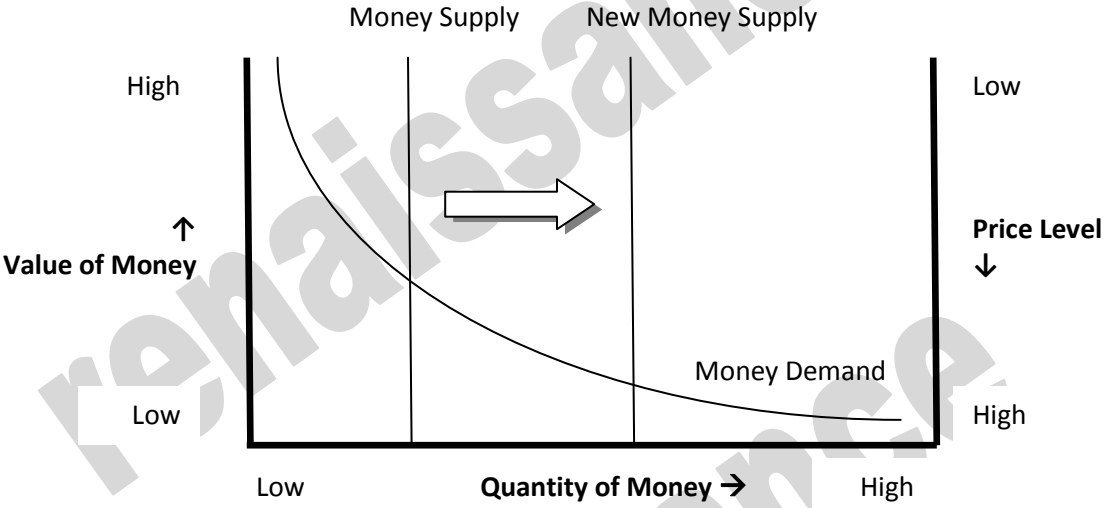


Figure: shift in the money market

The value of money, as revealed by the money market, is variable. A change in money demand or a change in the money supply will yield a change in the value of money and in the price level.An increase in the money supply is depicted in the Figure above.

Fisher's Quantity Theory of Money or Price theory of money

The Quantity Theory was first developed by Irving Fisher in the inter-war years as is a basic theoretical explanation for the link between money and the general price level. The quantity theory rests on what is

sometimes known as the **Fisher identity** or the **equation of exchange**. This is an identity which relates total aggregate demand to the total value of output (GDP).

MV = PT

1. M is the money supply
2. V is the velocity of circulation of money
3. P is the general price level
4. Y is the real value of national output (i.e. real GDP)

The **velocity of circulation** represents the number of times that a unit of currency (for example a Rs.10 note) is used in a given period of time when used as a medium of exchange to buy goods and services. The velocity of circulation can be calculated by dividing the money value of national output by the money supply.

Assumptions in Fisher's Quantity theory of money

Quantity Theory of Money by Fisher proceeds with the idea that price level is determined by the demand for and supply of money. It is based upon the following assumptions.

1. Price level is to be measured over a period of time, it being the average of prices of all sale transactions that take place during the said time period.
2. There are no credit sales in the market. All sales/purchase transactions are cash transactions..
3. Money is only a medium of exchange. Therefore, its demand is determined only because it is needed for making current payments. It is not considered one of the alternative forms of assets for holding wealth. Money is accepted by sellers so as to pay for their own purchases.
4. Each unit of money can change hands several times during the said time interval. The average number of time money changes hands is termed its average velocity of circulation (V). Accordingly, total cash payments during the year are always equal to the average quantity of money in circulation (M) multiplied by its velocity (V), that is equal to MV.
5. Similarly, because there are no credit sales, all cash payments received during the year must be equal to the volume of goods and services sold multiplied by the their respective prices. If, therefore, 'T' denotes the aggregate volume of all items sold and 'P' stands for their average price, then total sales proceeds received are equal to 'P'.

Criticism of Fisher's Quantity Theory of money

1. **The price level (P) is wrongly assumed to be a passive factor:** The price level P is not passive as assumed by Fisher. In reality P may be active. P does influence T, because rising prices give profit incentives to business expansion, T would increase. Thus, a rise in P may increase the volume of trade which may cause an increase in the quantity of money and V.
2. **The velocity of circulation of money (V) may not be a constant factor:** Fisher regards V as independent and constant. But, in practice V may vary with the volume of trade and price level, i.e., with P and T. V is also affected by the actual and expected changes in M or money supply. Then, the effect of changes in M may be neutralized by an opposite change in V. Sometimes, M being constant, V may increase, causing the price level to rise. For instance, the hyperinflation in Germany in 1923 was more as a result of the increase in the velocity of circulation rather than the increase in the money supply.
3. **The assumption of full employment in unrealistic:** A fundamental objection raised by Keynes against the cash transactions approach is that it is based on the assumption of full employment, which is a rare possibility in a modern society.

4. The theory neglects the role of interest rate: It is argued by critics like Mrs. Robinson that the quantity theory cannot be regarded as an adequate theory of money because it does not take into account the rate of interest.

Cambridge cash Balance Approach

The **Cambridge equation** formally represents the **Cambridge cash-balance theory**, an alternative approach to the classical quantity theory of money. Both quantity theories, Cambridge and classical, attempt to express a relationship among the amount of goods produced, the price level, amounts of money, and how money moves. The Cambridge equation focuses on money demand instead of money supply. The theories also differ in explaining the movement of money: In the classical version, associated with Irving Fisher, money moves at a fixed rate and serves only as a medium of exchange while in the Cambridge approach money acts as a store of value and its movement depends on the desirability of holding cash.

The Cambridge equation is : $\mathbf{M^d = k.P.Y}$

Keynes liquidity preference theory of money

Liquidity preference in macroeconomic theory refers to the demand for money, considered as liquidity. The concept was first developed by John Maynard Keynes in his book The General Theory of Employment, Interest and Money (1936) to explain determination of the interest rate by the supply and demand for money. The demand for money as an asset was theorized to depend on the interest foregone by not holding bonds. Instead of a reward for saving, interest in the Keynesian analysis is a reward for parting with liquidity.

According to Keynes, demand for liquidity is determined by three motives:

1. **The transactions motive**: people prefer to have liquidity to assure basic transactions, for their income is not constantly available. The amount of liquidity demanded is determined by the level of income: the higher the income, the more money demanded for carrying out increased spending.
2. **The precautionary motive**: people prefer to have liquidity in the case of social unexpected problems that need unusual costs. The amount of money demanded for this purpose increases as income increases.
3. **Speculative motive**: people retain liquidity to speculate that bond prices will fall. When the interest rate decreases people demand more money to hold until the interest rate increases, which would drive down the price of an existing bond to keep its yield in line with the interest rate. Thus, the lower the interest rate, the more money demanded (and vice versa).

The liquidity-preference relation can be represented graphically as a schedule of the money demanded at each different interest rate. The supply of money together with the liquidity-preference curve in theory interact to determine the interest rate at which the quantity of money demanded equals the quantity of money supplied

UNIT-V

MEANING OF INDUSTRIAL POLICY

The Industrial Policy specifies the relevant roles of the public, private, joint and co-operative sectors; small, medium and large scale industries. It also explains the Government's policy towards industries, their establishment, functioning, progress and management; foreign capital and technology, labour policy, and tariff policy.

OBJECTIVES OF INDUSTRIAL POLICY

The major objectives of industrial policy are:

(i) Rapid Industrial Development:
(ii) Balanced Industrial Structure:
(iii) Prevention of Concentration of Economic power:
(iv) Balanced Regional Growth:

POST-INDEPENDENT INDUSTRIAL POLICES OF INDIA

After independence, the various announced Industrial policies are as follows:

1. Industrial Policy 1948
2. Industrial policy 1956
3. Industrial policy 1977
4. Industrial policy 1980
5. Industrial policy 1990
6. Industrial policy 1991

Policies of 1948, 1956 and 1991 are basically industrial polices, while the others *i.e.* 1977, 1980, and 1990 were only Directive Policies.

INDUSTRIAL POLICY OF 1948

After having attained independence, the Government of India declared its first Industrial Policy on 6 th April, 1948, The Industrial Policy 1948 was presented in the Parliament by then Industry Minister Dr, Shyama Prasad Mukherjee.

Salient Features of Industrial Policy of 1948

The following are the main features of Industrial Policy of 1948:

i) Category of Industries
   a) Public sector
   b) Public-cum-private sector
   c) Controlled private sector
   d) Private and co-operative
ii) Cottage and small scale industries
iii) Employee-employer relation
iv) Control over foreign capital
v) Development of infrastructure

Industrial Policy Resolution of 1956

The industrial policy resolution of 1956 was based upon the Mahalanobis Model of growth. The four fold classification of the 1948 industrial policy was changed now to a threefold classification in schedule A, B and C industries.

Threefold classification of the industries –

1) Schedule 'A' Industries – This comprised 17 industrial areas which were strictly under the central government.
2) Schedule 'B' Industries – This category comprised 12 industries that were put to the State Governments to take measurers and was left to the state government to follow up with the private sector with provisions of compulsory licensing.
3) Schedule 'C' Industries – The industrial areas which were left out of the schedule A and B were left with the private sectors subject to licensing and regulation under the IDR Act.

India's new Industrial Policy, 1991

The new government by Shri Narasimha Rao, which took office in June 1991, announced a package of liberalization measures under its Industrial Policy on July 24, 1991.

Main Heads of the New Industrial Policy

1) Abolition of Industrial Licensing
2) De-reservation of Industries for Public Sector
    a) Reduced reservation for public sector
    b) Efforts to revive loss making enterprise
    c) Disinvestment in selected public sector industrial units.
3) Liberalised policy towards foreign capital and technology
    a) Relaxation in Upper Limit of Foreign Investment
    b) Automatic permission for foreign technology agreement
4) Abolition of MRTP Act

INDUSTRIAL GROWTH

Advantages of Industrial Growth

1) Increase in National Income
2) Increases the Rate of capital formation
3) Improve Occupational Structure of Population
4) Promotes Foreign trade
5) Promoting import substitution
6) Increase in Employment Opportunities
7) Provides support to Agriculture Development
8) Promotes Tertiary sector
9) Promotes balanced sectoral development
10) Ensures use of Natural resources
11) Helpful in market extension

Various Phases of Industrial Growth in India

The change in Industrial development or growth during the planning era can be dividend into four phases as under:
Phase I: High Growth Phase (1950-51 to 1965-66)
Phase II: Industrial Deceleration and Structural Retrogression (1966-80)
Phase III: The Period of Industrial recovery (1981-91)
Phase IV: Reforms Phase (July 1991 onwards)

Phase I: High Growth Phase (1950-51 to 1965-66)

Building up of strong industrial structure

First and most important factor responsible for high growth was the emphasis on indusrialisation; particularly since the second five year plan. High priority was given to industrial growth vis-à-vis other objectives in first three plans.
Secondly, this was a period of price stability and the food grain prices remained stable.

Phase II: Industrial Deceleration and Structural Retrogression (1966-80)
The second phase of industrial growth covers the period of three Ad-hoc Annual Plans, Fourth Plan and Fifth Plan. This phase is also known as Low Growth Phase or Industrial Deceleration, particularly the period from 1965-74.

Causes of Deceleration and Retrogression in Phase-II
Drought conditions in some years; Infrastructural constraints and bottleneeks, and the Oil crisis of 1973 were responsible for the slowdown of growth.

The main causes of deceleration and structural retrogression during the second phase of Industrial growth can be summed up as follows:

a) The wars of 1962, 1965 and 1971. During this period investment was made into unproductive uses.
b) Successive droughts of 1965-67 and 1971-73, and oil crisis of 1973 was also responsible for supply constraints.
c) Considerable slackening of real investment.
d) Unequal distribution of income in favour of the rich followed by stagnation in demand for consumer goods;
e) Unsatisfactory performance of the agricultural sector;
f) Policy constraints and bureaucratic obstacles on industrial growth;
g) Conflicts in the dominant coalition between proprietary classes, capitalist class and the class representing rich agricultural farmers.

Phase III – The Period of Industrial Recovery (1981-91)
The third phase of industrial growth covers the period of eighties consisting of both Sixth and Seventh Plan.

Causes of Industrial Recovery in Phase-III
1) Liberal Fiscal Regime
2) Contribution of the Agricultural Sector
3) Infrastructural Development
4) Growth of Service Sector

Phase IV – Reforms Phase (July 1991 onwards)
The fourth phase of industrial growth covers the early part of nineties, i.e., from 1991-92 to 1997-98.

Causes of Industrial Slowdown –
The factors responsible for industrial slowdown in the fourth phase of India's industrial growth are summarized as below –

a) Decline in the growth of export to 4.6 percent in the first eight months between April and November, 1997.
b) The impact of the tight money policy followed in 1995-96 when the monetary expansion was about 13.7 percent.
c) Significant build up industrial capacity in the first phase of liberalization;
d) In some cases the rate of demand growth was over-estimated.

DISINVESTMENT

Disinvestment Meaning -

Disinvestment can be defined as the action of an organization (or government) selling or liquidating an asset or subsidiary. It is also referred to as 'divestment'.

Disinvestment is defined as the action of a government aimed at selling or liquidating its shareholding in a public sector enterprise in order to get the government out of the business of production and increase its presence and performance in the provision of public goods and basic public services such as infrastructure, education, health etc.

Privatization is described as the transfer of control of ownership of economic resources from the public sector to the private sector. It means a decline in the role of the public sector as there is a shift in the property rights from the state to private ownership.

Difference between Privatization and Disinvestment –

1) Privatization involves transforming the ownership of a public sector business to the private sector known as strategic buyer.
2) Disinvestment is also a transformation process that happens while retaining 26% or, in some contexts, 51% percent of share right (i.e. the voting power) with the public sector organization. The rest is transferred to the desired partner.
3) In privatization, full ownership is transferred to the strategic partner.
4) In Disinvestment, usually, 26% or 51% of share is retained with the government company, and the rest is transferred to the strategic partner.

Types of Disinvestment in India

1) Token Disinvestment
2) Strategic Disinvestment

Merits/Objectives of Disinvestment –

1) Disinvestment releases of the large amount of public resources locked up in non-strategic public sector units for re-employment in areas that are much higher on the social priority e.g. health, family welfare etc. and to reduce the public debt that is assuming threatening proportions.
2) Privatization through Disinvestment would help stemming further outflows of the scarce public resources of sustaining the unviable non-strategic public sector unit.
3) Privatization vis-à-vis disinvestment would facilitate transferring the commercial risk to which the tax payer's money locked up in the public sector is exposed to the private sector wherever the private sector is willing to step in.
4) Privatization through Disinvestment would release tangible and intangible resources such as large manpower locked up in managing PSU's and release them for deployment in high priority social sector.
5) Disinvestment would expose privatized companies to market disciplines and help them become self-reliant.
6) Disinvestment would result in wider distribution of wealth by offering shares of privatized companies to small investors and employees.

Demerits/Criticism of Disinvestment –

1) The actual achievements against set targets of Disinvestment were not fulfilled in maximum number of years. The amount raised through Disinvestment from 1991-2001 was Rs. 2051 crore per year which is too meager. Further, the way money released by Disinvestment is being used, remaining undisclosed.
2) The loss of PSU's is rising. It was Rs. 9305 crore in 1998 and Rs. 10060 crore in 2000.
3) This is welcome but Disinvestment of profit making public sector units will rob the government of good returns. Further, if department of Disinvestment wants to get away with commercial risks, why should it retain equity in disinvested PSU's e.g. Balco (49%), Modern Foods (26%) etc.
4) The growth in social sector is not in any way hindered by non availability of manpower.
5) This is true but only when the govt, ensures that the market system regulates and disciplines privatized firms taking care of public's interest.
6) Privatization programme is generally not been affected through the public sales of shares. Earlier, sale of shares (1991-96) attracted the employees to a limited extent and was not friendly to small investors and employees.

FOREIGN DIRECT INVESTMENT

Foreign Direct Investment (FDI) is an important factor for acquiring investments and growing the local market with foreign finances when local investment is unavailable. It is a company of one nation putting up a physical investment into building a facility (factory) in another country.

Types of Foreign Direct Investment –

1) Horizontal
2) Vertical
3) Conglomerate

Vehicles of Foreign Direct Investment

1) Reciprocal distribution agreements
2) Joint venture and other hybrid strategic alliances
3) Portfolio investment

Liberalized Foreign Direct Investment Policy, 2016 –

The Union Cabinet chaired by the Prime Minister Shri Narendra Modi has given its ex-post-facto approval for the FDI policy amendments announced by the Government on 20th June, 2016.

1) Radical Changes for promoting Food Products manufactured
2) Foreign Investment in Defence Sector upto 100 percent
3) Review of Entry Routes in Broadcasting Carriage Services.
4) Pharmaceutical
5) Civil Aviation
6) Private Security Agencies
7) Establishment of branch office, liaison office or project office.
8) Animal Husbandry
9) Single Brand Retail Trading

Advantages of Foreign Direct Investment

1) Economic Development Stimulation
2) Easy International Trade
3) Employment and Economic Boost

4) Development of Human Capital Resources
5) Tax Incentives
6) Resource Transfer
7) Reduced Disparity between Revenues and Costs
8) Increased Productivity
9) Increment in Income

Disadvantages of Foreign Direct Investment
1) Hindrance to Domestic Investment
2) Risk from Political Changes
3) Negative Influence on Exchange Rates
4) Higher Costs
5) Economic Non-viability
6) Expropriation
7) Negative Impact on the Country's Investment
8) Modern-Day Economic Colonialism.