CHAPTER

6 Distribution Analysis

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"Distribution accounts for the sharing of wealth produced by a community among the agents or owners of the factors which have been active in its production"

–Chapman

Learning Objectives

1. To acquire knowledge about distribution of income among the factors of production.

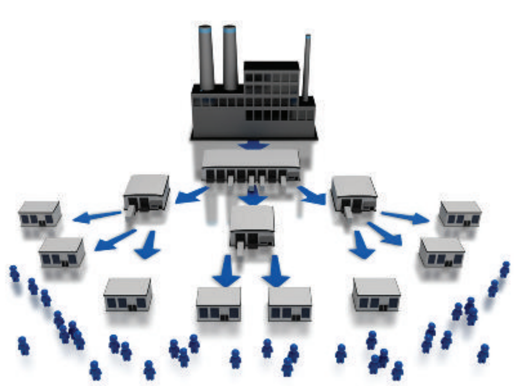
2. To enable the students to understand the theories of rent, wages, interest and profit.

6.1 Introduction

The factors of production viz., Land, Labour, Capital and Entrepreneur or Organization are involved in production. The theory of functional distribution deals with how the relative prices of these factors of production are determined. The theory of factor prices is popularly known as the theory of distribution. Interesting aspect here is in the fact that large number of ideas has emerged and various factors have been identified the economists, contributing to the development of Economics Science.

6.2 Meaning of Distribution

Distribution means division of income among the four factors of production in terms of rent to landlords, wage to labourer, interest to capital and profit to entrepreneurs.



6.3 Kinds of Distribution of Income

Personal Distribution

Personal Distribution is the distribution of national income among the individuals.

Functional Distribution

Functional Distribution means the distribution of income among the four factors of production namely land, labour, capital and organisation for their services in production process.

6.4 Marginal Productivity Theory of Distribution

Introduction

Marginal Productivity Theory of distribution was developed by Clark, Wickseed and Walras. This theory explains how the prices of various factors of production are determined. This theory explains how rent, wages, interest and profit are determined. This theory is also known as "General Theory of Distribution" or "National Dividend Theory of Distribution".

Assumptions

This theory is based on the following assumptions:

1. All the factors of production are homogenous.
2. Factors of production can be substituted for each other.
3. There is perfect competition both in the factor market and product market.
4. There is perfect mobility of factors of production.
5. There is full employment of factors.
6. This theory is applicable only in the long-run.
7. The entrepreneurs aim at profit maximization.
8. There is no government intervention in fixing the price of a factor.
9. There is no technological change.

Explanation of the Theory

According to the Marginal Productivity Theory of Distribution, the price or the reward for any factor of production is equal to the marginal productivity of that factor. In short, each factor is rewarded according to its marginal productivity.

Marginal Product

The Marginal product of a factor of production means the addition made to the total product by employment of an additional unit of that factor. The Marginal Product may be expressed as MPP, VMP and MRP.

1. **Marginal Physical Product (MPP)**

   The Marginal Physical Product of a factor is the increment in the total product obtained by the employment of an additional unit of that factor.

2. **Value of Marginal Product (VMP)**

   The Value of Marginal Product is obtained by multiplying the Marginal Physical Product of the factor by the price of product.

   Symbolically

   VMP = MPP x Price

3. **Marginal Revenue Product (MRP)**

   The Marginal Revenue Product of a factor is the increment in the total revenue which is obtained by the employment of an additional unit of that factor.

   MRP = MPP x MR

Statement of the Theory

An employer employs a factor of production because it is productive. So, the price he wants to pay for the factor depends upon its productivity. The greater the productivity of a factor, the higher will be its reward. If the price of a factor of production is less than its marginal revenue product, the employer will use more of this factor, because his profit will be increased.

When more of a factor is employed, its marginal revenue product diminishes. But the employer will gain by using additional units of the factor until the marginal revenue product of the factor is equal to its price. The employer's profit will be maximum at this point. Beyond the point, the marginal revenue product is less than the price of the factor. Hence, employer will suffer loss when he uses more of the factor. Therefore, the conclusion is that the employer will adjust the price of the factor of production so as to equalize the marginal revenue product of that factor.

In short, the Marginal Productivity Theory of Distribution states that

a) The price of a factor of production depends upon its productivity.

b) The price of a factor is determined by and will be equal to marginal revenue product of that factor.

c) Under certain conditions, the price of a factor will be equal to both the average and marginal products of that factor.

The Marginal Productivity Theory of Distribution can be represented diagrammatically as follows:

Marginal Productivity under Perfect Competition

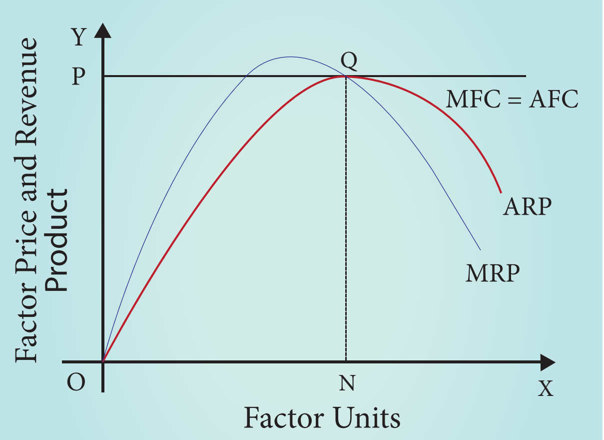


Diagram 6.1

The diagram 6.1 refers to the factor pricing under perfect competition in the factor market. X axis represents factor units and Y axis represents the factor price and revenue product. MRP is the Marginal Revenue Product Curve and ARP is the Average Revenue Product curve. AFC is the Average Factor Cost curve and MFC is the Marginal Factor Cost curve. AFC is horizontal under perfect competition and MFC coincides with it.

When there is perfect competition in the factor market, the firm is in equilibrium (i.e., earning maximum profits) only when MFC = MRP. Hence, in the diagram, the firm reaches equilibrium at point Q by employing ON units of factors and paying OP price (NQ) where MFC = MRP. At the point Q, MRP = ARP. The price paid to the factor (NQ) is also equal to marginal revenue product (NQ) and average revenue product (NQ). This means that there is no exploitation of factors under perfect competition. Beyond the point Q, no employer will employ factors, because after that point, the price paid to the factor is more than marginal revenue product and average revenue product.

Marginal Productivity Theory under Imperfect Competition

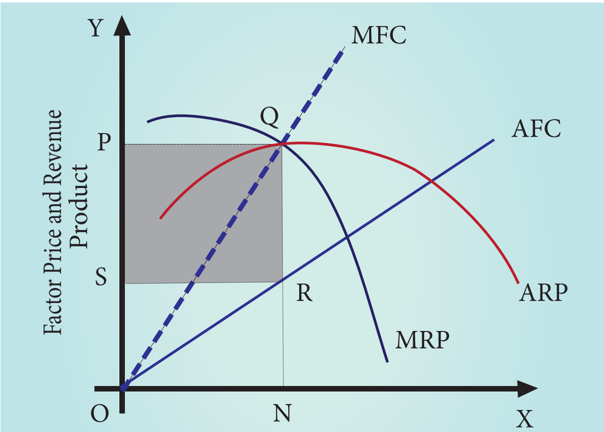


Diagram 6.2

In diagram 6.2 the factor pricing under imperfect competition is represented. AFC is Average Factor Cost curve. It represents the price paid to the factors. It increases as the number of factors demanded by the employer increases. As AFC rises, MFC lies above AFC. It represents the marginal cost paid to the factors. At the point Q, MFC = MRP, where the employer attains his maximum profit and so he stops employment of the factors at the point. But the average cost paid is NRSO and the average revenue obtained is NQ or OP. Total revenue obtained is NQPO. Therefore, exploitation per unit of factor is RQ. But the total number of factors is ON. Thus, the total exploitation of factor by the employer is RQ X SR = "PQRS" (shaded area). Thus, under imperfect competition, factor is exploited at the equilibrium position.

Criticism

This theory is subject to a few criticisms

1. In reality, the factors of production are not homogenous.
2. In practice, factors cannot be substituted for each other.
3. This theory is applicable only in the long–run. It cannot be applied in the short-run.

6.5 Rent

6.5.1 Meaning

Rent is the price or reward given for the use of land or house or a machine to the owner. But, in Economics, "Rent" or "Economic Rent" refers to that part of payment made by a tenant to his landlords for the use of land only.

6.5.2 Ricardian Theory of Rent

David Ricardo

The Classical Theory of Rent is called "Ricardian Theory of Rent". David Ricardo explained the theory of rent thus:

Assumptions

Ricardian theory of rent assumes the following:

> "Rent is that portion of the produce of the earth which is paid to the landlord for the use of the original and indestructible powers of the soil".
>
> ***David Ricardo***

1. Land differs in fertility.
2. The law of diminishing returns operates in agriculture.
3. Rent depends upon fertility and location of land.
4. Theory assumes perfect competition.
5. It is based on the assumption of long period.
6. There is existence of marginal land or no-rent land.
7. Land has certain "original and indestructible powers".
8. Land is used for cultivation only.
9. Most fertile lands are cultivated first.

Statement of the Theory with Illustration

Assume that some people go to a newly discovered island and settle down there. There are three grades of land, namely A, B and C in that island. 'A' being most fertile, 'B' less fertile and 'C' the least fertile. They will first cultivate all the most fertile land (A grade) available. Since the land is abundant and idle, there is no need to pay rent as long as such best lands are freely available. Given a certain amount of labour and capital, the yield per acre on 'A' grade land is 40 bags of paddy.

Suppose another group of people goes and settles down in the same island after some time. Hence the demand for agricultural produce will increase. The most fertile lands [A grade] alone cannot produce all the food grains that are needed on account of the operation of the law of diminishing returns. So the less fertile lands [B grade] will have to be brought under cultivation in order to meet the growing population. For the same amount labour and capital employed in '**A**' grade land, the yield per acre on 'B' grade land is 30 bags of paddy. The surplus of 10 bags [40-30] per acre appears on 'A' grade land. This is "Economic Rent" of 'A' grade land.

Suppose yet another group of people goes and settles down in the same island. So the least fertile land (C grade) will have to be brought under cultivation. For the same amount of labour and capital, the yield per acre on 'C' grade land is 20 bags of paddy. This surplus of 'A' grade land is now raised to 20 bags [40-20], and it is the "Economic Rent" of 'A' grade land. The surplus of 'B' grade land is 10 bags [30-20]. This is the economic rent of 'B' grade land.

In the above illustration in 'C' grade land, cost of production is just equal to the price of its produce and therefore does not yield any rent (20 - 20). Hence, 'C' grade land is called "no-rent land or marginal land". Therefore, No-Rent Land or Marginal Land is the land in which cost of production is just equal to the price of its produce. The land which yields rent is called "intra–marginal land". Therefore, rent indicates the differential advantage of the superior land over the marginal land.

Table 6.1 Ricardian Theory of Rent

Grades of Lands	*Production (in bags)*	*Surplus (i.e., Rent in bags)*
A	40	40-20=20
B	30	30-20= 10
C	20	20-20= 0

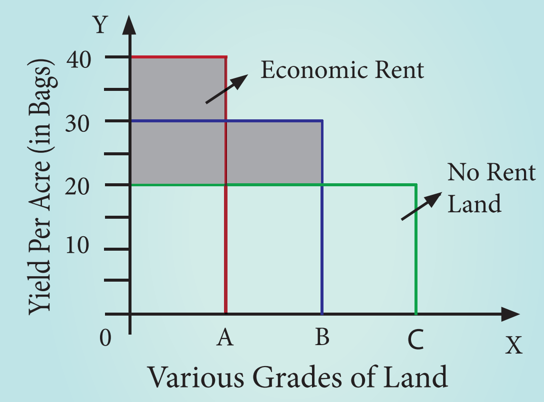


Diagram 6.3

Diagrammatic Explanation

In diagram 6.3, X axis represents various grades of land and Y axis represents yield per acre (in bags). OA, AB and BC are the 'A' grade, 'B' grade and 'C' grade lands respectively. The application of equal amount of labour and capital on each of them gives a yield represented by the rectangles standing just above the respective bases. The 'C' grade land is the "no–rent land" 'A' and 'B' grade lands are "intra–marginal lands". The economic rent yielded by 'A' and 'B' grade lands is equal to the shaded area of their respective rectangles.

Criticisms

Following are the limitations of Ricardian theory of rent.

1. The order of cultivation from most fertile to least fertile lands is historically wrong.
2. This theory assumes that, rent does not enter into price. But in reality, rent enters into price.

6.5.3 Quasi-Rent

Marshall introduced the concept of Quasi rent. Factors other than land say plant and machinery are fixed in supply during short period. They earn surplus income when demand rises. It is purely temporary as it disappears in long run due to increase in supply. The quasi-rent is a surplus that a producer receives in the short period over variable costs from the sale of output.

Distinction between "Rent" and "Quasi-Rent"

Sl. No.	*Rent*	*Quasi-Rent*
1.	Rent accrues to land	Quasi-Rent accrues to manmade appliances.
2.	The supply of land is fixed forever.	The supply of manmade appliances is fixed for a short period only.
3.	It enters into price	It does not enter into price.

QR= Total Revenue – Total Variable Cost

> "Quasi-Rent is the income derived from machines and other appliances made by man".
>
> *-Alfred Marshall*

6.5.4 The Modern Theory of Rent / Demand & Supply Theory of Rent

The classical economists' thought that land as a factor of production was different from other factors of production. But modern economists thought that all the factors of production are alike and there is no basic difference between them. Hence, a special theory was rent, developed by Ricardo is not necessary. Therefore, economists like Joan Robinson and Boulding have contributed their ideas for the determination of rent, which is known as the "Modern Theory of Rent".

> "The essence of the conception of rent is the conception of surplus earned by a particular part of a factor of production over and above the minimum earnings that is necessary to induce it to do work"
>
> ***- Joan Robinson***

Rent is the difference between the actual earnings of a factor of production and its transfer earning.

Rent = Actual earning – Transfer earning.

The minimum payment that has to be made to a particular factor of production to retain it in its present use is known as transfer earnings.

6.6 Wages

Wages are a payment for the services of labour, whether intellectual or physical. Wage may be paid daily, weekly, fortnightly, monthly or yearly and partly at the end of the year in the form of bonus.

6.6.1. Meaning

Wage is the price paid to the labourer for the services rendered .

> "A sum of money paid under contract by an employer to a worker for the services rendered".
>
> *-Benham*

6.6.2 Kinds of Wages

Wages are divided into four types:

1. **Nominal Wages or Money Wages.**

   Nominal wages are referred to the wages paid in terms of money.

2. **Real Wages**

   Real wages are the wages paid in terms of goods and services. Hence, real wages are the purchasing power of money wages.

3. **Piece Wages**

   Wages that are paid on the basis of quantum of work done.

4. **Time Wages**

   Wages that are paid on the basis of the amount of time that the worker works.

6.7 Theories of Wages

6.7.1 Subsistence Theory of Wages

Subsistence theory is one of the oldest theories of wages. It was first explained by Physiocrats, a group of French economists and restated by Ricardo.

According to this theory, wage must be equal to the subsistence level of the labourer and his family. Subsistence means the minimum amount of food, clothing and shelter which workers and their family require for existence.

If workers are paid higher wages than the subsistence level, the workers would be better off and they will have large families. Hence, the population would increase. When the population increases, the supply of labourer would increase and therefore, wages will come down.

On the other hand, if wages are lower than the subsistence level, there would be a reduction in population and thereby the supply of labour falls and wages increase to the subsistence level. So this theory is closely associated with Malthusian Theory of Population. This theory holds that the wages of workers would not be above or below the subsistence level of the labourer and his family.

Criticism

1. Role of trade unions in collective bargainings was not found.
2. It does not explain the differences in wages in different occupations.
3. The assumption that population would increase with a rise in wage rate is not correct. Poor families (and countries) have more Children than rich families (countries).Actually, as wage rate increases, people can afford to downsize their family size for adopting costly family planning procedures; while poor people cannot do so.

6.7.2 Standard of Living Theory of Wages

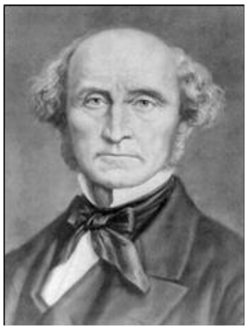
The Standard of Living Theory of Wages developed by Torrance is an improved and refined version of the Subsistence Theory of Wage. According to this theory, wage is equal to the standard of living of the workers. If standard of living is high, wages will be high and vice versa.

Standard of living wage means the amount necessary to maintain the labourer in the standard of life to which he is accustomed.

Criticism

1. According to this theory, the standard of living determines wages. But in actual practice, wages determine the standard of living.

6.7.3 Wage Fund Theory of Wages



This theory was first propounded by Adam Smith. But the credit goes to J.S.Mill who perfected this theory

According to Mill "every employer will keep a given amount of capital for payment to the workers". It is a known as "Wage Fund". It is fixed and constant. Wages depend directly upon the fund and inversely with number of labourers employed. The average wage of a worker can be calculated by using the formula.

$$\text{Average wage per worker} = \frac{\text{Total Wage Fund}}{\text{Number of Workers}}$$

If the number of workers increases, the wage per worker would fall and vice versa.

Criticism

1. It does not explain the difference in wages in different occupations.
2. It ignores the role of trade unions.
3. Actually the capitalists will take away a large sum before making payment of wages.

6.7.4 Residual Claimant Theory of Wage

This theory was propounded by the American economist F.A.Walkar in 1875, in his book Political Economy. According to this theory, wage is the residual portion after paying the remuneration of all the other three factors, namely, land, capital and organization.

Criticisms

1. This theory does not explain the role of trade unions can secure higher wage for workers.
2. Demand side of labour in the determination of wages needs to be considered.

6.7.5 Marginal Productivity Theory of Wage

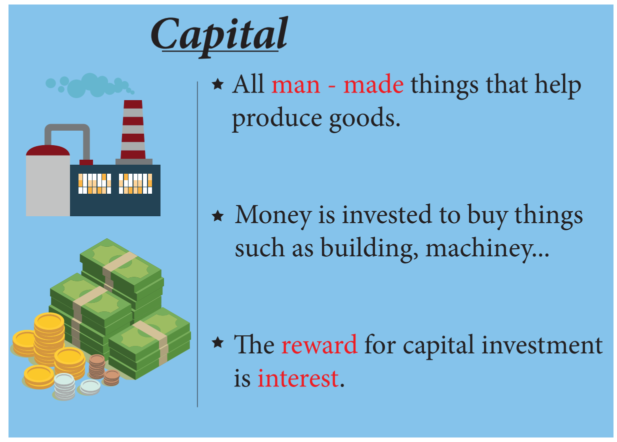
The application of general theory of distribution to wage fixation is the marginal productivity theory of wages.

According to this theory, wages are determined by the marginal productivity of labour and equal to it at the point of equilibrium.

Under perfect competition wage is paid equal to marginal product of labour (wage = MP_L) But in real world where there is imperfect competition, there is exploitation of labour and wage is less than MP_L.

6.8 Interest

Generally speaking, interest is a payment made by a borrower to the lender for the money borrowed.



6.8.1 Meaning

Interest is the reward paid by the borrower to the lender for the use of capital.

> "Interest is the price paid for the use of capital in any market"
>
> *-ALFRED MARSHALL*

6.8.2 Kinds of Interest

Gross Interest

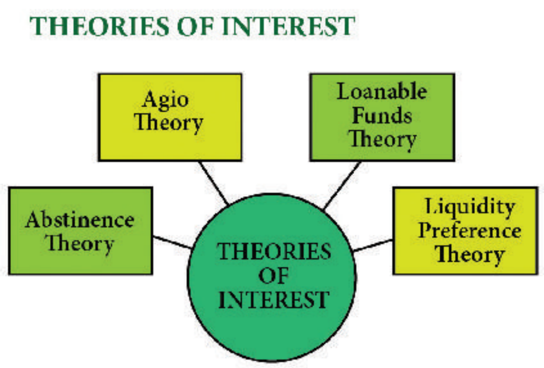
Gross interest is the total interest amount received by creditors from debtors.

Gross Interest = (Net Interest) + (reward for inconvenience) + (insurance against risk of non-repayment) + (payment for service of debt management)

Net Interest

Net Interest is only a part of the gross interest. It is the payment for use of capital only. A good example for net interest is the interest payable for Government Securities.

6.9 Theories of Interest



6.9.1 Abstinence Theory or Waiting Theory

This theory was propounded by N.W.Senior. To him, interest is the reward for abstaining from the immediate consumption of wealth. According to Senior, capital is the result of saving. But saving involves **"abstinence" or "sacrifice"**. It is possible to save only if one abstains from present consumption. Such abstinence from present consumption involves some suffering. Hence, it is necessary to reward the saver (capitalist) to compensate for the sacrifice he has to undergo by abstaining from present consumption. Therefore, interest is the reward or compensation paid to the saver (capitalist) for his "abstinence" or "sacrifice".

Marshall accepted the Abstinence Theory of interest. But he used the word 'waiting' instead of "abstinence". Saving implies waiting. According to him, interest is the reward for waiting. Saving involves waiting. But people do not like to wait. So, in order to make them wait and in turn to save, we have to pay them some reward. Therefore, interest is the reward paid to the saver (capitalist) for his "waiting".

Criticism

According to this theory, saving involves suffering. But savings may not always involve suffering to some rich people. Rich people have money for which they do not get interest. Hoarding of money is to quench the thirst for liquidity.

6.9.2 Agio Theory of Interest / The Psychological Theory of Interest / Time Preference Theory

This theory was propounded by John Rae in 1834. But credit goes to Bohm Bawerk an Austrian School economist who has given final shape to the theory. The American economist Irving Fisher modified and gave a new theory viz Time Preference theory.

According to this theory, people prefer present goods rather than future goods. Because the present goods are more certain than future goods, just **"as a bird in the hand is worth two in the bush"**. There are many countries where no one knows what will happen next day.ASEAN crisis of 1996 and American crisis of 2007-08 were not predicted even for economists, including Nobel Laureats. So, when people save they have to postpone their present enjoyment or satisfaction. If one postpones one's present satisfaction, one has to be paid an **"Agio" or "Premium"**. This premium is "interest". People prefer present consumption than future consumption due to the risk increasing and uncertainties of the present world.

6.9.3 Loanable Funds Theory / The Neo Classical Theory

The Loanable Funds Theory, also known as the "Neo–Classical Theory", was developed by Swedish economists like Wicksell, Bertil Ohlin, Viner, Gunnar Myrdal and others.

According to this theory, interest is the price paid for the use of loanable funds. The rate of interest is determined by the equilibrium between demand for and supply of loanable funds in the credit market.

Demand for Loanable Funds

The demand for loanable funds depends upon the following:

1. **Demand for Investment (I)**

   The most important factor responsible for the loanable funds is the demand for investment. Bulk of the demand for loanable funds comes from business firms which borrow money for purchasing capital goods.

2. **Demand for Consumption (C)**

   The demand for loanable funds comes from individuals who borrow money for consumption purposes also.

3. **Demand for Hoarding (H)**

   The next demand for loanable funds comes from hoarders. Demand for hoarding money arises because of people's preference for liquidity, idle cash balances and so on. The demand for C, I and H varies inversely with interest rate.

Supply of Loanable Funds

The supply of loanable funds depends upon the following four sources:

1. **Savings (S)**

   Loanable funds come from savings.

   According to this theory, savings may be of two types, namely,

   1. Savings planned by individuals are called "ex-ante savings". E.g. LIC premium, EMI payment etc.
   2. The unplanned savings are called, "ex-post savings". Savings is left out after spending are ex post saving.

2. **Bank Credit (BC)**

   The bank credit is another source of loanable funds. Commercial banks create credit and supply loanable funds to the investors.

3. **Dishoarding (DH)**

   Dishoarding means bringing out the hoarded money into use and thus it constitutes a source of supply of loanable funds. In India,after 1991,Public sector undertakings are being sold to private people to mobilize more funds.This is also called disinvestment.

4. **Disinvestment(DI)**

   Disinvestment is the opposite of investment.In other words disinvestment means not providing sufficient funds for depreciation of equipment. It gives rise to the supply of loanable funds.

   All the four sources of supply of loanable funds vary directly with the interest rate.

Classical theory of Interest

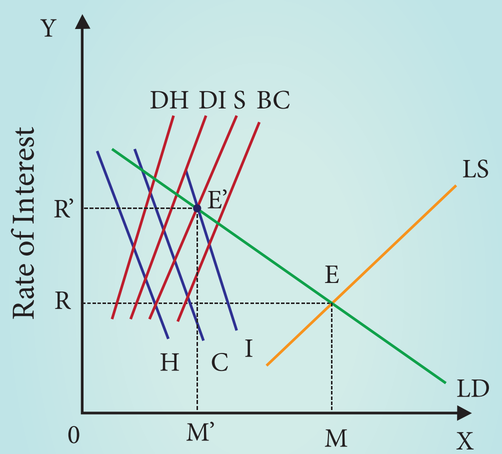
The equilibrium interest rate, according to classical theory, is determined by the intersection of demand and supply curves, Demand for money refers to investment. Supply of money refers to savings S=I.

Equilibrium

The rate of interest is determined by the equilibrium between the total demand for and the total supply of loanable funds.

Supply of and Demand for Loanable Funds

Supply of loanable funds	=	Savings + Bank Credit + Dishoarding + Disinvestment
		= S + BC + DH + DI
Demand for loanable funds	=	Investment + Consumption + Hoarding
		= I + C + H



Demand for Loanable Funds and Supply of Loanable Funds

Diagram 6.4

In Diagram 6.4, X axis represents the demand for and supply of loanable funds and Y axis represents the rate of interest. The LS curve represents the total supply curve of loanable funds. This is obtained by the summation of the Saving Curve (S), Bank credit curve (BC), Dishoarding curve (DH) and Disinvestment curve (DI). The LD curve represents the total demand for loanable funds; this is obtained by the summation of the demand for investment curve I, demand curve for consumption demand or dissaving curve and curve for demand for hoarding curve H. The LD and LS curves, intersect each other at the point "E" the equilibrium point. At this point, OR rate of interest and OM is the amount of loanable funds.

Criticism

1. Many factors have been included in this theory.Still ther are many more factors.Two such factors are 1)Asymmetric Information and 2) Moral Hazard.In practice larger firms, due to their political powers, are able to get huge bank credit at lower interest rates.But due to NPAs, (Non-Performing Assets) small firms and depositors lose their interest income. The loanable funds theory is "indeterminate"' unless the income level is already known. (This can be studied in 12th standard Economics Book)
2. It is very difficult to combine real factors like savings and investment with monetary factors like bank credit and liquidity preference.

6.9.4 Keynes' Liquidity Preference Theory of Interest or The Monetary Theory of Interest

Keynes propounded the Liquidity Preference Theory of Interest in his famous book, "The General Theory of Employment, Interest and Money" in 1936.

J.M. Keynes

According to Keynes, interest is purely a monetary phenomenon because the rate of interest is calculated in terms of money. To him, "interest is the reward for parting with liquidity for a specified period of time".

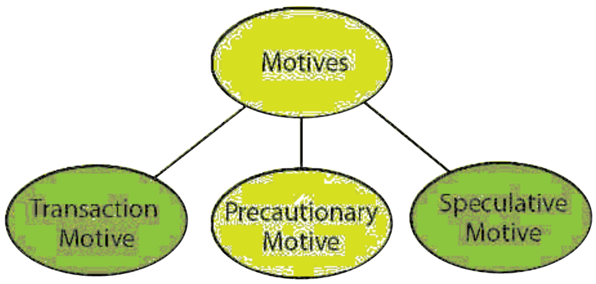
Meaning of Liquidity Preference

Liquidity preference means the preference of the people to hold wealth in the form of liquid cash rather than in other non-liquid assets like bonds, securities, bills of exchange, land, building, gold etc.

> "Liquidity Preference is the preference to have an amount of cash rather than of claims against others".
>
> - ***Meyer***

Motives of Demand for Money

According to Keynes, there are three



motives for liquidity preference. They are:

1. **The Transaction Motive**

The transaction motive relates to the desire of the people to hold cash for the current transactions (or day–to-day expenses).

The amount saved under this motive depends on the level of income. M_t and Y are positively associated. (Say M_t = 0.125Y; that means if income is ₹ 1000, demand for transaction motive is ₹ 125)

$$M_t = f(y)$$

2. **The Precautionary Motive**

The precautionary motive relates to the desire of the people to hold cash to meet unexpected or unforeseen expenditures such as sickness, accidents, fire and theft. The amount saved for this motive also depends on the level of income. (Say M_p = 0.125Y; it means if income is ₹ 1000, demand for M_p is ₹ 125)

$$M_p = f(y)$$

3. **The Speculative Motive**

The speculative motive relates to the desire of the people to hold cash in order to take advantage of market movements regarding the future changes in the price of bonds and securities in the capital market. The amount saved for this motive depends on the rate of interest. Ms = f (i). There is inverse relation between liquidity preference and rate of interest (Say M_s = 450-100i).

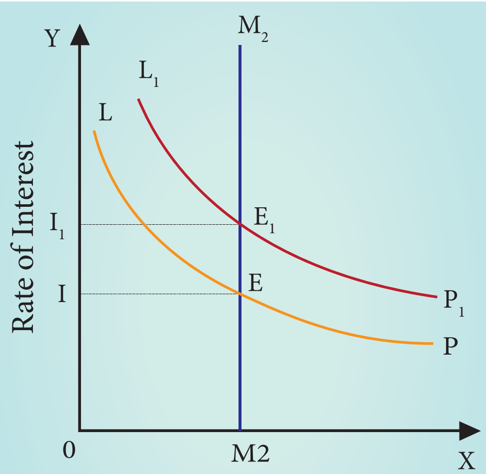
Determination of Rate of Interest

According to Keynes, the rate of interest is determined by the demand for money and the supply of money. The demand for money is liquidity preference. In fact, liquidity preference for speculative motive determines rate of interest. The supply of money is determined by the policies of the Government and the Central Bank of a country. The total supply of money consists of coins, currency notes and bank deposits (Say M = 200).

Equilibrium between Demand and Supply of Money

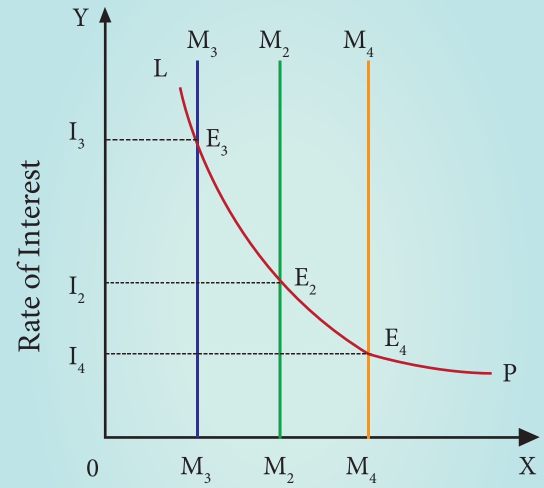
The equilibrium between liquidity preference and demand for money determine the rate of interest. In short-run, the supply of money is assumed to be constant (₹ 200).

LP is the liquidity preference Curve (demand curve). M_2 M_2 shows the supply curve of money to satisfy speculative motive. Both curves intersect at the point E, which is the equilibrium point. Hence, the rate of interest is T. If liquidity preference increases from LP to L_1P_1 the supply of money remains constant, the rate of interest would increase from OI to OI_1. Numerical examples given above can also be used for better understanding. Total demand for money=M_t+M_p+M_s =0.125Y+0.125Y+(450-100i). Total supply of money=₹ -200. M_t and M_p are influenced by Y. Hence for the sake of easy understanding, Ms alone can be considered Demand for money=supply of money at equilibrium point:450-100i=200;450-200=100i;250=100i; i=250/100=2.5.This is equilibrium interest In reality, interest rate is also influenced by national income and commodity sector equilibrium.However, they are not included here for making the understanding easier.



Demand for Money and Supply of Money

Diagram 6.5



Demand for Money and Supply of Money

Diagram 6.6

Suppose LP remains constant. If the supply of money is OM_2 the interest is OI_2 and if the supply of money is reduced from OM_2 to OM_3, the interest would increase from OI_2 to OI_3. If the supply of money is increased from OM_2 to OM_4, the interest would decrease from OI_2 to OI_4.

Criticism

1. This theory does not explain the existence of different interest rates prevailing in the market at the same time.
2. It explains interest rate only in the short-run.

6.10 Profit

The entrepreneur coordinates all the other three factors (land, labour and capital) of production. Entrepreneur is rewarded for his services in the form of profit.

6.10.1 Meaning of Profit

Profit is a return to the entrepreneur for the use of his entrepreneurial ability. It is the net income of the organizer. In other words, profit is the amount left with the entrepreneur after he has payments made for all the other factors (land, labour and capital) used by him in the production process. However, there are other versions also.

6.10.2 Kinds of Profit

I. Monopoly Profit: Profit earned by the firm because of its monopoly control.

II. Windfall Profit: Some times, profit arises due to changes in price level. Profit is due to unforeseen factors.

III. Profit as functional reward: Just like rent, wage and interest, profit is earned by the entrepreneur for his entrepreneurial function.

6.10.3. Concepts of Profit

a. Gross Profit

Gross Profit is the surplus which accrues to a firm when it subtracts its Total Expenditure from its Total Revenue.

Gross Profit = Total Revenue- Total cost

Here cost implies explicit costs only (Normally economic cost, social cost and environmental cost are not considered by the Accountants in India).

b. Net Profit or Pure Profit or Economic profit or True profit

Net or pure or economic or true profit is the residual left with entrepreneur after deducting from Gross profit the remuneration for the self-owned factors of production, which are called implicit cost.

Net Profit = Gross Profit- Implicit costs

c. Normal Profit

It refers to the minimum expected return to stay in business.

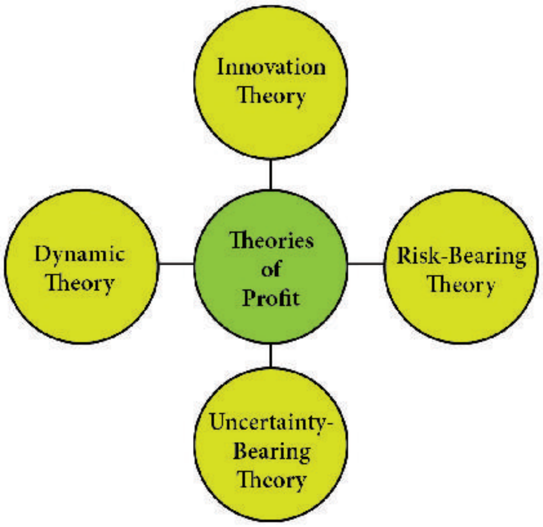
d. Super Normal Profit

Super normal profits are over and above the normal profit.

Super Normal Profit = Actual profit- Normal profit

6.11 Theories of Profit

THEORIES OF PROFIT



6.11.1 Dynamic Theory of Profit

This theory was propounded by the American economist J.B.Clark in 1900. To him, profit is the difference between price and cost of production of the commodity. Hence, profit is the reward for dynamic changes in society. Further he points out that, profit cannot arise in a static society. Static society is one where everything is stationary or stagnant and there is no change at all. Therefore, there is no role for an entrepreneur in a static society. The price of the commodities in a static society would be equal to their cost of production. So, there would be no profit for the entrepreneur. The entrepreneur only gets wages for management and interest on his capital.

At present several changes are taking place in a dynamic society. Changes are permanent. According to Clark, the following five main changes are taking place in a dynamic society.

1. Population is increasing
2. Volume of Capital is increasing.
3. Methods of production are improving.
4. Forms of industrial organization are changing.
5. The wants of consumer are multiplying.

6.11.2 Innovation Theory of Profit

Innovation theory of profit was propounded by Joesph. A.Schumpeter. To Schumpeter, an entrepreneur is not only an undertaker of a business, but also an innovator in the process of production. To him, profit is the reward for "innovation". Innovation means invention put into commercial practice.

According to Schumpeter, an innovation may consist of the following:

1. Introduction of a new product.
2. Introduction of a new method of production.
3. Opening up of a new market.
4. Discovery of new raw materials
5. Reorganization of an industry / firm.

When any one of these innovations is introduced by an entrepreneur, it leads to reduction in the cost of production and thereby brings profit to an entrepreneur. To obtain profit continuously, the innovator needs to innovate continuously. The real innovators do so. Imitative entrepreneurs cannot innovate.

6.11.3 Risk Bearing Theory of Profit

Risk bearing theory of profit was propounded by the American economist F.B.Hawley in 1907. According to him, profit is the reward for "risk taking" in business. Risk taking is an essential function of the entrepreneur and is the basis of profit. It is a well known fact that every business involves some risks.

Since the entrepreneur undertakes the risks, he receives profits. If the entrepreneur does not receive the reward, he will not be prepared to undertake the risks. Thus, higher the risks, the greater are the profit.

Every entrepreneur produces goods in anticipation of demand. If his anticipation of demand is correct, then there will be profit and if it is incorrect, there will be loss. It is the profit that induces the entrepreneurs to undertake such risks.

6.11.4 Uncertainty Bearing Theory of Profit

Uncertainty theory was propounded by the American economist Frank H.Knight. To him, profit is the reward for "uncertainty bearing". He distinguishes between "insurable" and "non-insurable" risks.

Insurable Risks

Certain risks are measurable or calculatable. Some of the examples of these risks are the risk of fire, theft and natural disasters. Hence, they are insurable. Such risks are compensated by the Insurance Companies.

Non-Insurable Risks

There are some risks which are immeasurable or incalculatable. The probability of their occurrence cannot be anticipated because of the presence of uncertainty in them. Some of the examples of these risks are competition, market condition, technology change and public policy. No Insurance Company can undertake these risks. Hence, they are non-insurable. The term "risks" covers the first type of events (measurables - insurable) and the term "uncertainty" covers the second type of events (unforeseeable or incalculatable or not measurable or non-insurable).

According to Knight, profit does not arise on account of risk taking, because the entrepreneur can guard himself against a risk by taking a suitable insurance policy. But uncertain events cannot be guarded against in that way. When an entrepreneur takes himself the burden of facing an uncertain event, he secures remuneration. That remuneration is "profit".

6.12 Conclusion

In this chapter, the determination of how the prices of various factors of production (namely land, labour, capital, and organization) has been discussed. In short, all the theories are related to factor pricing of factors of production. However,it needs to be understood that no theory can completely comprehend every thing.The reality will always be more complicated than what the theories could predict or perceive.Theories are only guide lines,they cannot predict with 100% perfection.However,the scientific studies attempt to enhance the degree of perfection.

GLOSSARY

1. **Distribution** – Distribution of wealth among agents or the owners of the factors of production.
2. **Rent** – Rent is reward for the use of land.

3. **Wages** – Wages are the reward for labour.

4. **Interest** – Interest is the price paid for the use of capital.

5. **Profit** – Profit is the reward for organisation or entrepreneurship.

6. **Quasi-Rent** – Quasi-Rent is the surplus earned by man-made appliances and instruments of production in the short-period.

7. **Transfer earnings** – Transfer earnings refer to minimum payment payable to a factor to retain it in its present use.

8. **Money wage** – Money wage is the remuneration received by a labourer in terms of money.

9. **Real wage** – Real wage is the purchasing power of the money wages in terms of goods and services.

10. **Loanable fund** – Loanable fund is that part of capital meant for loan.

11. **Innovation** – Invention put into commercial practice.

MODEL QUESTIONS

SN2A6

PART – A

1. In Economics, distribution of income is among the
   a. factors of production
   b. individual
   c. firms
   d. traders

2. Theory of distribution is popularly known as,
   a. Theory of product-pricing
   b. Theory of factor-pricing
   c. Theory of wages
   d. Theory of Interest

3. Rent is the reward for the use of
   a. capital
   b. labour
   c. land
   d. organization

4. The concept of 'Quasi-Rent' is associated with
   a. Ricardo
   b. Keynes
   c. Walker
   d. Marshall

5. The Classical Theory of Rent was propounded by
   a. Ricardo
   b. Keynes
   c. Marshall
   d. Walker

6. 'Original and indestructible powers of the soil' is the term used by
   a. J.S.Mill
   b. Walker
   c. Clark
   d. Ricardo

7. The reward for labour is
   a. rent
   b. wage
   c. profit
   d. interest

8. Money wages are also known as
   a. real wages
   b. nominal wages
   c. original wages
   d. transfer wages

9. Residual Claimant Theory is propounded by
   a. Keynes
   b. Walker
   c. Hawley
   d. Knight

10. The reward given for the use of capital
   a. rent
   b. wage
   c. interest
   d. profit

11. Keynesian Theory of interest is popularly known as
   a. Abstinence Theory
   b. Liquidity Preference Theory
   c. Loanable Funds Theory
   d. Agio Theory

12. According to the Loanable Funds Theory, supply of loanable funds is equal to
   a. S + BC + DH + DI
   b. I + DS + DH + BM
   c. S + DS + BM + DI
   d. S + BM + DH + DS

13. The concept of meeting unexpected expenditure according to Keynes is
   a. Transaction motive
   b. Precautionary motive
   c. Speculative motive
   d. Personal motive

14. The distribution of income or wealth of a country among the individuals are
   a. functional distribution
   b. personal distribution
   c. goods distribution
   d. services distribution

15. Profit is the reward for
   a. land
   b. organization
   c. capital
   d. labour

16. Innovation Theory of profit was given by
    a. Hawley
    b. Schumpeter
    c. Keynes
    d. Knight

17. Quasi-rent arises in
    a. Man-made appliances
    b. Homemade items
    c. Imported items
    d. None of these

18. "Wages as a sum of money are paid under contract by an employer to a worker for services rendered" –Who said this?
    a. Benham
    b. Marshall
    c. Walker
    d. J.S.Mill

19. Abstinence Theory of Interest was propounded by
    a. Alfred Marshall
    b. N.W Senior
    c. Bohm-Bawerk
    d. Knut Wicksell

20. Loanable Funds Theory of Interest is called as
    a. Classical Theory
    b. Modern Theory
    c. Traditional Theory
    d. Neo-Classical Theory

Part- A Answers

1	2	3	4	5	6	7	8	9	10
a	b	c	d	a	d	b	b	b	c
11	12	13	14	15	16	17	18	19	20
b	a	b	b	b	b	a	a	b	d

PART – B Answer the following questions in one or two sentences.

21. What is meant by distribution?
22. Mention the types of distribution.
23. Define 'Rent'.
24. Distinguish between real and money wages.
25. What do you mean by interest?
26. What is profit?
27. State the meaning of liquidity preference.

Part-C Answer the Following Questions in a Paragraph

28. What are the motives of demand for money?
29. List out the kinds of wages.
30. Distinguish between rent and quasi-rent.

31. Briefly explain the Subsistence Theory of Wages.

32. State the Dynamic Theory of Profit.

33. Describe briefly the Innovation Theory of Profit.

34. Write a note on Risk-bearing Theory of Profit.

PART – D Answer the Following Questions in One Page

35. Explain the Marginal Productivity Theory of Distribution.

36. Illustrate the Ricardian Theory of Rent.

37. Elucidate the Loanable Funds Theory of Interest.

38. Explain the Keynesian Theory of Interest.

ACTIVITY

Visit any manufacturing unit (factory) and collect information about factors of production (land, labour, capital and organisation) and compare their remunerations.

Students may be asked to meet the stakeholders in the factory.

- Entrepreneur.
- Manager or Managing Director.
- Employees.

References

1. Dewett, K.M. and Navalur, M.H. (2016), "Modern Economic Theory", S. Chand and Company Pvt. Ltd., New Delhi.
2. Jhingan, M.L. ( ), Micro Economic Theory,
3. Ahuja, H.L. (2016), "Principle of Microeconomics", S.Chand and Company Pvt. Ltd., New Delhi.
4. Karl, E. Case, Raw C. Fair and Sharon Oster (2014), "Principle of Economics", Pearson, Darling Kindersley (India), Pvt. Ltd., New Delhi, Douglas C.
5. Alfred W. Stonier and Hague (2008), "A Text Book of Economic Theory", Pearson, Dorling Kindersley (India), Pvt Ltd., New Delhi.