CHAPTER-1, INTRODUCTION

Economic Activity

All of us are concerned with one or the other activity to earn certain sum of money to meet the necessities of our own and our family. All those activities that are paid (Remunerated in Economics terminology) are called Economic Activity.

Economy

The sum total of all Economic activities of the society is called an Economy. Economy consists of all agricultural, industrial, manufacturing, construction, mining, business, and other productive activities. It also includes private and government institutions. Professionals like Teachers, Doctors, Lawyers, Engineers, etc. are also members of the Economy. Thus according to Brown "*Economy is the system of earning livelihood*"

Major Types of Economy

Market Economy

It is an economy in which goods and resources are bought and sold freely in the market

Centrally Planned Economy

It is an economy in which all economic decisions are taken by the government or centrally planned authority.

Mixed Economy: -

It is an economy in which all economic decisions are taken by the government or centrally planned authority and Market forces (Price Mechanism)

PLANNED ECONOMY	MARKET ECONOMY
All means of production are owned by government.	All means of production are owned by private individuals
Main objectives of production is social welfare	Main objectives of production are maximization of profit.
Ownership of property is under government control.	There is no limit to private ownership of property
Economic problems are solved by Planning.	Economic problems are solved through price mechanism
Planning Commission plays an important role	Market forces (Demand & Supply) plays an important role

Economics

Economics was originally introduced as a science of statecraft. It was concerned with collection of revenue for the state i.e. government. The word Economics was derived from the Greek word *Oikos and Nemeian,* which mean household management.

Various Concepts of Economics

1	Wealth Concept	Adam Smith	An Enquiry into Nature and Causes of Wealth Of Nations	1776
2	Welfare Concept	Alfred Marshall	Principle of Economics	1890
3	Scarcity Concept	Lionel Robbins	An Essay on the Nature and Significance of Economic Science	1932
4	Growth Concept	P.A. Samuelson	Economics	1948

Economy & Its Central Problems

Economic problems arise out of the ***scarcity***. By scarcity we mean that the means of production are always scare in relation to the demand for goods and services they produce.

Human wants are unlimited. Therefore all human wants cannot be satisfied with the limited means because resources are limited and resources available for production of goods and services have alternative uses.

Since resources are scare in relation to unlimited human wants, efforts should be made to economise limited resources by allocating them in such a way as to produce maximum output. That is, making best use of available resources***. This is known as Economising Resources.***

Prof. Robbins has classified four basic causes of economic problems. They are: ***1. Human wants are unlimited. 2. Resources are limited and 3. Resources available have alternative uses.***

In short, we can say that ***Multiplicity of Wants and Scarcity of Means*** are the two foundation stones on which whole structure of economic problems stands.

Basic Economic Problems of an Economy

What to produce?

There are two aspects for this problem. ***First, what should be produced? Second, what should be their quantity?*** The first problem is the problem of choice of goods and services to be produced and the second problem is the problem of determining the quantity of goods and services to be produced.

An economy wants many things but all wants cannot be produced with the available resources. Therefore, ***an economy has to choose what goods and services are to be produced and what should not be***.

How to produce?

The problem ***how to produce refers to the problem of selection of techniques of production*** in the process of producing goods and services. The techniques to be applied can be ***labour intensive or capital intensive.***

By Labour Intensive Techniques, we mean engaging more quantity of labour with less quantity of capital

By Capital intensive techniques we mean engaging more quantity of capital with less quantity of labour.

For whom to produce?.

This problem is the problem of the distribution of national income. 1. Whether the goods and services be produced for consumption or production? 2. Whether the goods and services be produced for rich or poor? 3. Whether we produce luxury or essential goods and services? ***All these depend on how the national income is distributed among the various factors of production of an economy.***

How to achieve fuller and efficient use of resources?

The means of production are always scare in relation to the demand for goods and services they produce, every efforts has to be made to achieve fuller and efficient use of resources. ***"Resources should not be kept idle or underutilized"***

The Problem of growth of resources

Since the means of production are scare and will exhaust on being constant use, growth of resources has become another problem of an economy. ***The economy should strive for discovering new resources to substitute older resources.***

The Problem of economic Growth

Every economy of the world intends to increase its rate of economic growth in order to achieve higher standard of living of the people. In order to achieve this objective it has to decide the rate of savings and investment and about the use of technology. It is therefore essential for the Economist to think about the problem of economic growth.

Solution of Central Problems

In a **Market-Oriented or Capitalist Economy,** the fundamental problems are solved by the Market mechanism (price Mechanism). Price is influenced by the market forces of demand and supply. These forces help to decide what, how and for whom to produce.

In a **Planned Economy or Socialist Economy** all the economic decisions regarding what, how and for whom to produce are solved by the state through planning. The market is regulated by the state. The prices of the various products are fixed by the state called administered Prices.

In **Mixed Economy** all the economic decisions regarding what, how and for whom to produce are solved by both the state through planning and Market mechanism (price Mechanism).

Micro Economics and Macro Economics

Micro Economics	Macro Economics
Worms Eye View	Bird's Eye View
It Studies individual units	It Studies aggregate of economic units
It is also known as Price Theory	It is also known as Income Theory
The method of study is Partial Equilibrium Analysis	The method of study is General Equilibrium Analysis
It studies individuals units, which are mortal	It studies society which is immortal
Concern with Theory of Consumer Equilibrium, Producer's Equilibrium, Factor Pricing and Economic Welfare	Concern with National Income accounting, general price level, Full Employment and Economic Growth and Business Cycles , international trade

CHAPTER -2, THEORY OF CONSUMER BEHAVIOUR

Utility

Every prudent person wants to make the best of his or her resources. In order to understand how a consumer behaves, we have to study the concept of utility. The term utility should be differentiated from satisfaction. *Utility implies expected satisfaction whereas satisfaction stands for realised satisfaction*

Utility of a commodity is the power of that commodity to satisfy a human want.

Features of Utility

1. It is essentially a subjective or introspective concept.
2. It relates to inner sentiments and emotions.
3. It has no physical or material existence.

4. It is not inherent in the physical commodity.
5. It depends on the mental makeup of the consumer
6. It has no ethical or legal significance.

Cardinal Utility Analysis

Alfred Marshall says utility can be measured cardinally. He says the utility of a product for a person can be measured in terms of the price he is willing to pay for it. That is if a student is willing to pay ₹.10 for a cup of tea it means that he derive utility worth ₹.10, from consumption of that cup of tea.

Total Utility

Total psychological satisfaction obtained by a consumer from consuming a given amount of a particular commodity is called Total Utility. This can be under stood with the help of an example

Units Consumed	Total Utility	Marginal Utility
0	0	0
1	20	20
2	38	18
3	53	15
4	64	11
5	70	6
6	70	0
7	62	-8
8	46	-16

Marginal Utility

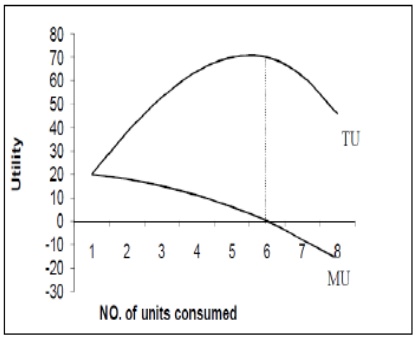
Marginal utility is the change in total utility resulting from the consumption of one more unit of a commodity or it is the addition made to the total utility by the addition of one more unit of commodity. In other words, the utility derived from the consumption of last unit is termed as marginal utility

$MU = TU_N - TU_N - 1$

Law of Diminishing Marginal Utility

It is a psychological fact that when a consumer acquires more and more units of a commodity during a particular time, the utility of the successive units will diminish. That is marginal utility decline with the consumption of successive units of a commodity. This pattern of decline in marginal utility is called ***Law of Diminishing Marginal Utility.***

This law is natural and holds good for every product and services. The Law of Diminishing Marginal Utility states that the more we have of a thing, the less is the utility that we get from every additional unit.



From the above graph, we can observe that the total utility curve slopes upwards to the right to indicate that total utility will increase with the consumption of additional units. However, increase in total utility is not constant but declines gradually. This is shown by the marginal utility curve, which has a negative or downward slope. The marginal utility curve cuts X-axis (marginal utility is zero when Total utility reaches Maximum) and goes below the x- axis. (Marginal utility is negative.)

Relationship Between Total Utility and Marginal Utility

TOTAL UTILITY	MARGINAL UTILITY
Increases but at a diminishing rate	Declines
Reaches maximum	Reaches zero
Decline from maximum	Becomes negative

Ordinal Utility Analysis

Cardinal utility analysis is simple to understand, but suffers from a major drawback in the form of quantification of utility in numbers. In real life, we never express utility in the form of numbers. At the most, we can rank various alternative combinations in terms of having more or less utility. In other words, ***the consumer does not measure utility in numbers, but can rank various consumption bundles***. This forms basis of Ordinal Utility Analysis

Prof. J.R. Hicks and R.G.D Allen called utility approach unrealistic because satisfaction (utility) being subjective mental phenomenon can never be measured precisely. They, therefore, presented an alternative technique known as ***Indifference Curve Analysis***. Indifference Curve Analysis is based on the assumption that every consumer has a ***Scale of Preference***.

The Consumer assigns ranks (like 1st, 2nd, 3rd rank) to different combinations of two goods called bundle and he can tell which combination he likes best. (This is called Ordinal Measure of utility).

Related Concepts of Indifference Curve Approach

Consumer Budget

It is the real purchasing power of the consumer from which he can purchase the certain quantities of bundles of two goods at a given prices. In other words the consumption bundle available to a consumer depends on two

things - ***Prices of two goods and Income of the consumer***. The consumer can afford to buy only those bundles which cost him less than or equal to his income.

Budget Set

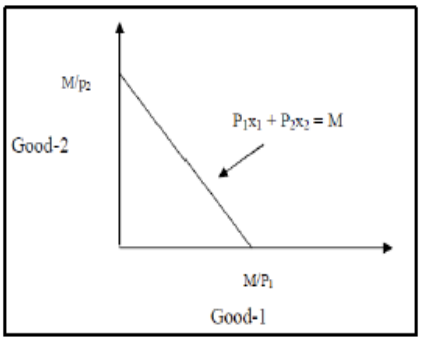
It is the set (collection) of all the bundles that the consumer can buy with his income at the prevailing market prices. The budget set/budget line changes when either of prices or income of the consumer changes

$$P1x1 + P2x2 \leq M$$

For example, Mr. Darshan's income is ₹20/-. He can purchase two goods both are price at ₹5/-.His budget set is (0,0), (0,1), (0,2), (0,3), (0,4), (1,0), (2,0), (3,0), (4,0), (1,1), (1,2), (1,3), (2,0), (2,1), (2,2), (3,0) , (3,1), (4,0). ***Out of this bundles (0,4), (1,3), (2,2), (3,1), (4,0) cost exactly same and all other bundles cost less than ₹ 20/-***

Budget Line (or Price Line)

A budget line represents all bundles (i.e. Combination of two goods) which a consumer can buy with his entire income and prices of two goods.

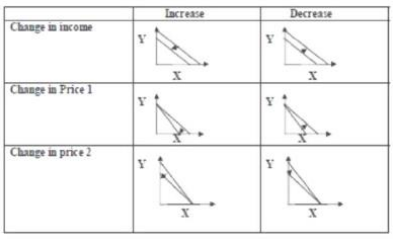


Suppose there are two goods good 1 and good 2 and price of good 1 is P_1 and that of good 2 is P_2. If the consumer wants to buy X_1 units (quantity) of good 1 and X_2 units of good 2, he will have to spend $P_1 X_1 + P_2 X_2$ amount of money.

Suppose money income of the consumer is M, he can choose any bundle of two goods which cost equal to the money he has.

Equation for budget line is $P_1 X_1 + P_2 X_2 = \mathbf{M}$. Budget line is a straight-line with ***horizontal intercept*** M/P_1 and ***vertical intercept*** M/P_2.

The slope of the budget line is $-P_1/P_2$. The Negative sign of the slope of the budget line shows that the budget line is downward sloping

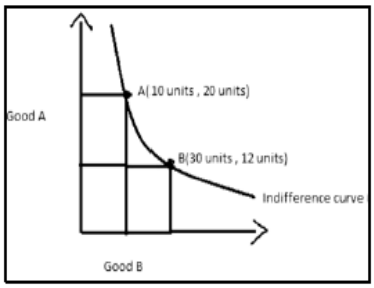


Change in Budget Line

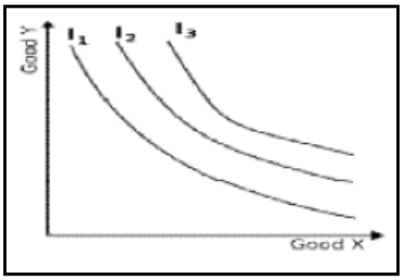
A budget line is based on income (M) and prices (P_X & P_y). Thus, it changes when there is a change in M, P_X, & P_Y

Indifference Curve

An indifference curve is a curve that represents all those combinations of two goods which give equal satisfaction to the consumer. The consumer has no reason to prefer one particular combination to any other combination on the same curve. So he is indifferent (neutral) towards various combinations of two goods giving same level of satisfaction and, therefore, such a curve is called indifference curve. If we show these combinations on a graph and join these points to form a curve, it is known as an indifference curve



Thus ***an indifference curve is the locus of all points representing various combinations (also called bundles) giving equal satisfaction towards which a consumer is indifferent.***



Indifference Map

An indifference map is a collection of indifference curves corresponding to different levels of satisfaction Thus it is a family of indifference curves. It gives a complete picture of a consumer's scale of preferences for two goods as it represents different levels of satisfaction

Properties of Indifference Curves

1. Indifference curves always slope down from left to the right.
2. Higher indifference curves represent higher level of satisfaction.
3. Indifference curves are always convex to the origin O.
4. Indifference curves cannot intersect each other.
5. Indifference curve touches neither X-axis nor Y-axis

Monotonic Preferences

Monotonic preference means that consumer preference between any two bundles of goods which has more of at least one of the good and no less of other goods compared to the other bundle.

A consumer with monotonic preference will prefer the bundle (2, 3)to bundles (2, 1), (1, 3) and (2, 2) bundles and another consumer with monotonic preference will prefer the bundle (2, 2) to (1, 1), (2, 1) and (1, 2) bundles.

Marginal Rate of Substitution (MRS)

The marginal rate of substitution (MRS) can be defined as how many units of good x have to be given up in order to gain an extra unit of good y, while keeping the same level of utility. Therefore, it involves the trade-offs of goods, in order to change the allocation of bundles of goods while maintaining the same level of satisfaction. It can be determined using the following formula:

$$MRS_x^y = \frac{dx}{dy}$$

Diminishing Marginal Rate Of Substitution (DMRS)

The marginal rate of substitution is the rate of exchange between some units of goods X and У which are equally preferred. The marginal rate of substitution of X for Y (MRS) xy is the amount of Y that will be given up for obtaining each additional unit of X. This rate is explained below

Combination	Good X	Good Y	MRS for X for Y
L	1	9	-
M	2	6	3:1
N	3	4	2:1
p	4	3	1:1

To have the second combination and yet to be at the same level of satisfaction, the consumer is prepared to forgo 3 units of Y for obtaining an extra unit of X. The marginal rate of substitution of X for У is 3:1. The rate of substitution will then be the number of units of У for which one unit of X is a substitute. As the consumer proceeds to have additional units of X, he is willing to give away less and less units of У so that the marginal rate of substitution falls from 3:1 to 1:1 in the fourth combination.

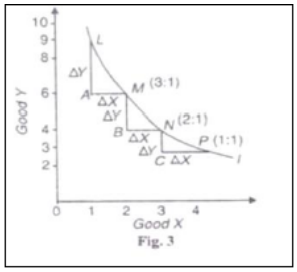
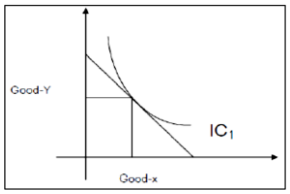


Fig. 3

This shows that as the consumer moves downwards along the curve, he possesses additional units of X, and gives up lesser and lesser units of Y, i.e., the MRS xy diminishes. It is due to this law of diminishing MRS that an indifference curve is convex to the origin.

CONSUMER'S EQUILIBRIUM THROUGH INDIFFERENCE CURVES.



The consumer is in equilibrium when he maximizes his satisfaction given his income and prices of goods. Here the most important point is the choice of that combination of two goods which gives the consumer maximum satisfaction. For this three points of information about the consumer are required: ***1. Income of the consumer.2. Prices of goods (both items are represented by budget line), 3. Preference schedule which is represented by indifference map.***

CONDITION OF CONSUMER'S EQUILIBRIUM:

The following two conditions are necessary.

1. Budget line should be tangent to the indifference curve. {i.e., Slope of indifference curve = Slope of budget line

2. Indifference curve should be convex to the point of origin O.(i.e. MRS should be diminishing at point of equilibrium).

A consumer is in equilibrium at a point where budget line is tangent to indifference curve. At this point; slope

LAW OF DEMAND AND ELASTICITY OF DEMAND

Demand

In a Free Market Economy, the price of a commodity is determined by interaction of the forces of Supply and demand. A commodity means any good that is produced for sale in the market. Market means all area in which buyers and sellers are in contact with each other for purchase and sale of the commodity.

Demand for a commodity

Demand for a commodity refers to that quantity of a commodity demanded in the market at a given price in a given period. ***It implies three elements: quantity of the commodity, price of the commodity and the period***. Period is important because over different periods, different quantities of commodity may be demanded even at the same price. Demand in Economics implies both desire to purchase and ability to pay. Mere desire does not constitute demand unless it is backed by ability to pay.

Demand = Need + Desire + Ability to Pay +Availability.

Household Demand or Individual Demand

The basic unit of consumption in an economy is the individual household. The demand for a commodity of the individual household is the quantity of that commodity that he is ready to purchase or take away from the market in a given moment of time at a given price.

Factors Affecting Household Demand

They are many factors effecting household demand:

1. **Price of the Commodity:** The demand of a commodity is inversely and negatively related to its price
2. **The Price of the Related Goods:** The demand of a particular is related with the change in price of the other commodity (substitute and complementary goods).
3. **Income of the Consumer.** There is direct relationship between income of the consumer and quantity demanded.
4. **Taste, Preference, Habit of the Consumer**

Demand Function

Demand Function shows the functional relationship between demand for a commodity and its various determinants

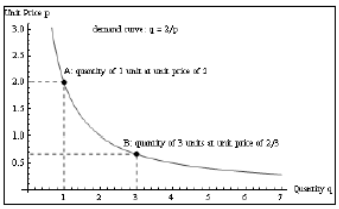
.Qd = f (P, Pr, Y, T & W)

Where P is the price of the commodity, Pr is the price of related commodities; Y is the income of the consumer, T is Taste, preference, and habit of the consumer, W is Climate, fashion, population, etc.

Household Demand Schedule

A Household demand schedule is a tabular statement that shows a full account of household demand of a particular commodity at different prices at certain time.

Price of commodity x	Quantity demanded by A
10	50
9	60
8	70
7	80
6	90



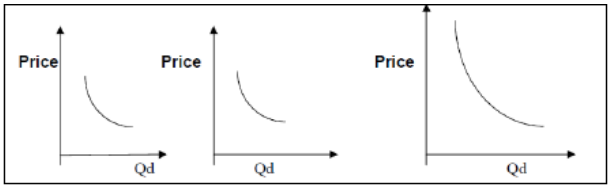
Household Demand Curve

Graphical representation of household demand schedule is called Household Demand Curve. In other words, the curve shows the various quantities of demand for a commodity by a particular household at various levels of price.

Market Demand Schedule and Market Demand Curve

The summation of all individual demand schedules in a market for a commodity is called Market Demand Schedule. A curve that shows the demand of the whole market for a commodity at its various prices is known as market demand curve. Market demand curve is the horizontal summation of all individual household demand curves

Price	Qd of consumer A	Qd of consumer B	Market Qd (A+B)
10	50	30	80
9	60	40	100
8	70	50	120
7	80	60	140
6	90	70	160



Law of Demand

Law of demand establishes the relationship between price and quantity of goods demanded. According to this Law, "other things being the same, when the price of the commodity increases the quantity demanded falls and when the price of the commodity falls, the quantity demanded increases". It means that the price and quantity demanded move in the opposite direction. That is Price and Quantity demanded is negatively/ indirectly related.

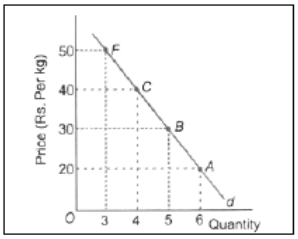
Assumptions of Law of demand

1. There is no change in the price of related commodities
2. There is no change in the income of the consumer.
3. There is no change in the Taste, preference, and habit of the consumer.
4. There is no change in the climate, fashion, etc.
5. There is no change in the population.
6. There is no change distribution of income and wealth
7. There is no change climate and seasons
8. There is no change government policy

GRAPHICAL REPRESENTATION OF LAW OF DEMAND

The demand schedule given below shows the relationship between price and quantity of goods demanded. The Law of demand can be illustrated graphically

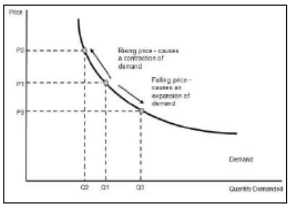
Price of commodity X	Quantity of commodity X demanded
50	3
40	4
30	5
20	6



Movements along the Same Demand Curve (Extension / Contraction of Demand)

If the quantity demanded decreases or increases in response to the fall or rise in price of the commodity alone, assuming that other determinants of demand as constant, it is known as Movement along a demand Curve.

(**Extension / Contraction of Demand)**

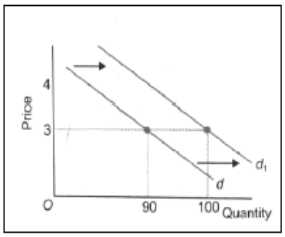


When the quantity demanded increases with the fall in price, it is called extension of demand whereas when the quantity demanded falls with the rise in price, it is called contraction of demand.

Shift in Demand Curve

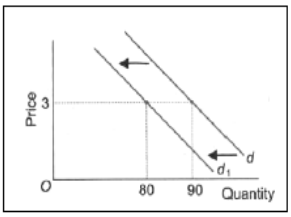
(Increase or decrease in demand) When the change in demand is due to factors other than the price of the commodity, it is known as Shift of demand Curve. (Increase or decrease of demand**)**

Increase in Demand.



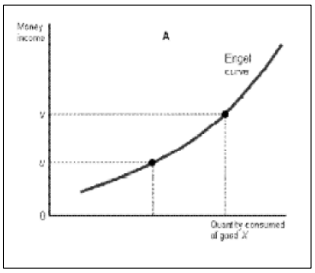
If more quantity of a commodity demanded at the same price, due to favourable change in factors other than price of the commodity in question (change in income, change in the price of related commodity, taste habit preference etc.). It is called increase in demand.

Decrease in Demand.



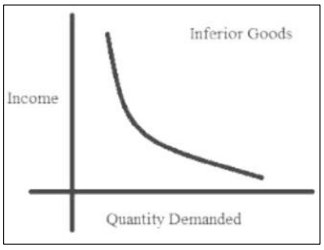
If less quantity of a commodity demanded at the same price, due to unfavourable change in factors other than price of the commodity in question (change in income, change in the price of related commodity, taste, habit, preference, etc.).It is called decrease in demand.

Normal Goods



When rise in income leads to rise in demand for a good, that good is called a normal good. Alternatively it is goods whose quantity demanded increases as income increases. Thus there is direct relationship between income and demand for normal goods. In other words, ***Goods whose income effect is positive are generally called normal goods.*** Positive income effect means that when money income of consumers rises, demand for normal goods also rises and when income falls, demand for such goods also falls. Examples are: full cream milk, superior grains like wheat and rice, silk cloth, cigarettes etc.

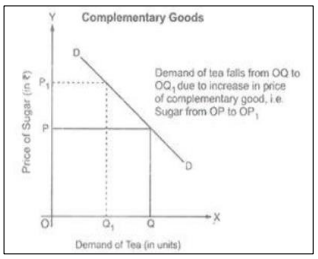
Inferior Goods



When rise in income leads to fall in demand for a good, that good is called an inferior good. Alternatively it is good whose demand falls with increase in income. Thus there is inverse relationship between income and demand for an inferior good. In other words, goods whose income effect is negative are called inferior goods. Negative income effect means when money income of the consumer rises, demand for inferior goods falls and when income falls, demand for such goods rises. Examples are: toned milk, coarse grain like jowar and bajra, khaki cloth, bidies etc.

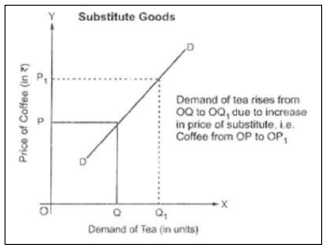
Complementary Goods

Complementary goods are a pair of goods which are demanded jointly to satisfy a given want.. They Example are car and petrol, fountain pen and ink, needle and thread. There is inverse relationship between price of a commodity and the demand for its complementary good.



Substitute Goods

Substitute goods are a pair of goods which can be used (substituted) in place of each other to satisfy a given want. That is they are also called competitive goods. Coffee and tea, scooter and pen and pencil, gur and sugar, ghee and oil are examples of substitute



CHAPTER -3, THEORY OF PRODUCTION

Production in Economics is defined as Creation of Utility i.e. the transformation of input in to output. For example, the (inputs) raw cotton capital and labour result in the production of cloth (output). The term Production is used to denote Production of both goods and services. The services of Teachers, Doctors, Lawyers, Engineers, are the examples of services

Production Function

Production Function is the name of the relation between physical inputs and physical outputs of a firm (Watson) or it is the functional relation between input and output under given state of technology.

It can be expressed as follows: **Q= f (F1, F2, F3…Fn)**

Where Q is the output and F1, F2, F3…Fn. are the various factors of production.

Time Element in the analysis of production

Time element has an important place in the analysis of production. There are three types of time periods.

Very Short Period

Very short period is defined as the period of time that is so short that the output cannot be adjusted with the change in demand.

Short Period

Short period is defined as the period of time during which the output can be adjusted by changes the quantities of able factor and not fixed factor. In other words, the scale of production is constant.

Long Period

Long period is defined as the period of time during which the output can be adjusted by changes the quantities of variable factor and fixed factor. In other words, the firm is able to change the scale of production.

Various Concepts of Production

Before analysing the theory of Production, it will be useful to study some of the basic concepts of Production. There are three basic concepts of Production. They are.

The Total Product

Total product is the total number of a commodity Produced during a given period by a given number of factors of production.

The Average Product

Average product of a factor is the total product divided by the number of units of a factor

AP= TP/N

MARGINAL PRODUCT

Marginal product is the change in total product resulting from the use of one more or one less unit of variable factor or it is the addition made to the total product by the addition of one more unit of variable factor.

MP = TPN- TPN- 1

Short Run Production Function or Law of Variable Proportion

The law of variable Proportion exhibits the short run Production Function in which one factor is variable and other factors are fixed. An extra unit of output can be obtained by applying a unit of variable factor, which can

be greater than, equal to, or less than the output obtained by previous unit. The law of variable Proportion is also named as Laws of Return or Laws to Variable Factor or Law of Diminishing Return

According to Watson, ***'When total output or production of a commodity is increased by adding units of variable factor, while the quantities of other factors are held constant then increase in total production become after some point smaller and smaller.'***

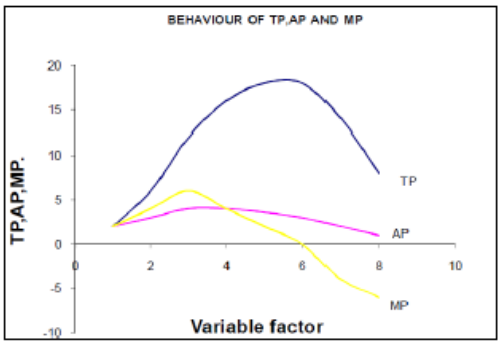
Assumptions of the Law of Variable Proportion

1. One factor is variable factor and other factors are fixed factor.
2. It is impossible to make changes in the factors of production.
3. No change in the technique of production.
4. All units of the variable factors are homogenous.

Three Stages of the Law of Variable Proportion

The law of variable Proportion can be illustrated with the help of above example. We have presumed that Land, capital, etc. as fixed factors and Labour as variable factor.

Fixed Factor	Variable Factor	T.P	A.P	M.P
1	0	0	0	-
1	1	2	2	2
1	2	6	3	4
1	3	12	4	6
1	4	16	4	4
1	5	18	3.6	2
1	6	18	3	0
1	7	14	2	-4
1	8	8	1	-6



Stage I

In the first stage, total product increases at increasing rate and average product increases. In the beginning of this stage marginal product also increases but after a point, it starts to decline. Average product continues to rise until the marginal product is greater than the average product. When Marginal Product becomes equal to Average Product**,** (at this point average product is maximum) the first stage ends. Since average product increases with the increase in the unit of variable factor, this stage is called ***Stage of Increasing Return***.

Stage II

In this stage the total product continues to increase, but at a diminishing rate. This stage goes to the point when total product reaches maximum and marginal product becomes zero. In this stage, average product goes on diminishing, but never become zero. Since both average product and marginal product decline (but positive), this stage is known as ***Stage of Diminishing Return***.

Stage III

In the third stage, total product starts to decline and marginal product becomes negative. Average product continues to fall, but never become zero. This stage is called the ***Stage of Negative Return***.

Cost of Production

Production is the transformation of input in to output. It is the result of effective combination of factors of production. The producer in the form of wages, rent, interest, and profit remunerates these factors. Payments made by the producer in the form of wages, rent, interest, and profit forms the cost of production. ***In other words all expenses incurred by the producer in the form of wages, rent, interest, and profit on the production of a commodity is cost of production***

Short Run Cost of Production

In the short run, one factor is a variable and other factors are fixed. An extra unit of output can be obtained by applying a unit of variable factor, hence it incur two types of costs.

Fixed Cost Of Production or Supplementary Cost or Overhead Cost

Fixed costs are those costs of a firm that do not vary with the size of its output. They are same whether the output is small or large. Even when the output is zero, firm incur fixed costs. Examples of fixed costs are salaries, interest paid on borrowed capital, rent paid for the use of land, depreciation charges, tax paid to the government etc.

Variable Cost Of Production or Direct or Prime Cost

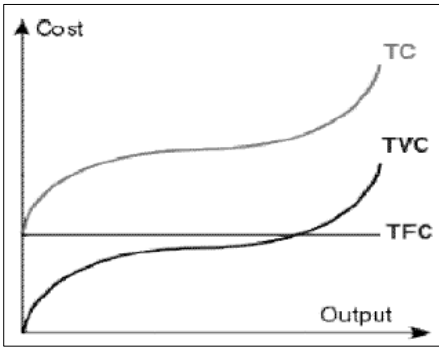
Variable costs are those costs of a firm that vary with the size of its output. They are increases when the output increases and fall when the output falls. When the output is zero, firm incur zero variable costs. Examples of variable costs are wages, payments made to raw materials, fuel, transportation etc.

Total Cost of Production (TC)

Total cost of production is the sum of the variable factor and fixed cost of production at particular level of output.

Total Cost OF Production = Total Fixed Cost + Total Variable Cost, (TC= TFC + TVC)

Total cost of production never become zero since fixed cost exist even when the output is zero

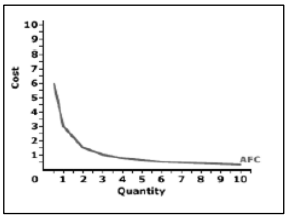


Total Product	TFC	TVC	TC = TFC+TVC	AFC = TFC/N	AVC = TVC/N	AC = AFC+AVC	MC = TC_n-TC_{n-1}
0	100	0	100	-	-	-	-
1	100	25	125	100	25	125	25
2	100	40	140	50	20	70	15
3	100	50	150	33.33	16.67	50	10
4	100	60	160	25	15	40	10
5	100	80	180	20	16	36	20
6	100	110	210	16.67	18.33	35	30
7	100	150	250	14.29	21.42	35.71	40
8	100	300	400	12.5	37.5	50	150
9	100	500	600	11.11	55.56	66.67	200
10	100	900	1000	10	90	100	400

Average Fixed Cost

Average fixed cost is the ratio between total fixed costs divided by the number of units produced. When output increases AFC decreases since fixed cost is fixed

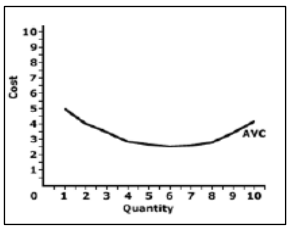
AFC= TFC / N



Average Variable Cost

Average Variable Cost is the variable cost per unit of output**.** It is observed that AVC decline initially up to a point where it become minimum and thereafter it start raising Shape of AVC is U shape

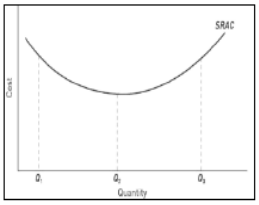
AVC= TVC/N



Average Cost of Production (A.C)

Total Average cost of production or Average Cost (A.C) is obtained by dividing total cost of production by output.

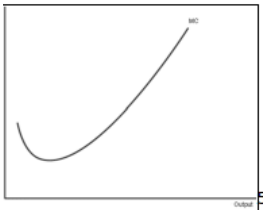
AC = AFC +AVC



Marginal Cost of Production (MC)

Marginal cost of production is the addition made to total cost of production by producing one more unit of output.

MC= TCn -TCn-1



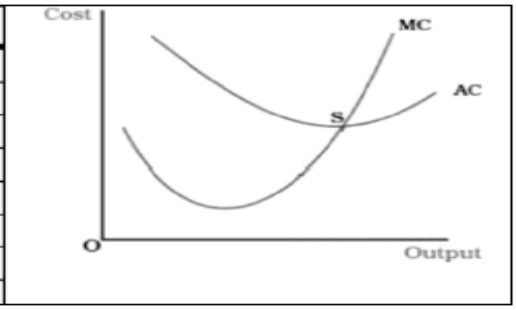
The Behaviours of Average Cost (A.C) and Marginal Cost (M.C.) of Production

The relation/difference/ behaviour of Average cost (A.C) and Marginal cost (M.C.) can be explained with the help of a table and graph.

1. When AC is falling MC remains below it
2. When AC becomes constant, MC also becomes equal to it.
3. When AC starts rising, MC becomes higher than it.
4. MC curve always cuts AC curve (and AVC curve) at their minimum point.

5. The minimum point of MC always comes before the minimum point of AC.
6. When MC is falling, AC cannot rise.
7. Both MC and AC are calculated from Total Cost of Production

Output	TC	AC	MC
1	30	30	30
2	50	25	20
3	60	20	10
4	72	18	12
5	85	17	13
6	102	17	17
7	126	18	24
8	160	20	34



CHAPTER -4, THEORY OF A FIRM UNDER PERFECT COMPETITION

Perfectly Competitive Market

Perfectly Competitive Market is a market situation, which fulfils the following conditions or assumptions.

Large Number of Buyers and Sellers

There are large numbers of buyers and sellers for a commodity in this market. Each one of them is too small relative to market that it can exert no perceptible influence on price.

Homogenous Products

All firms produce homogenous products. As a result, the buyers cannot distinguish between the products of one firm and that of another.

Freedom of Entry and Exit

New firms have absolute freedom to enter in to the industry and leave from the industry.

Perfect Knowledge about Market Conditions

Buyers and sellers have perfect knowledge about the price of the commodity. Therefore, advertisements become unnecessary. There is no selling cost.

Perfect Mobility of Factors of Production

Factors of production have perfect freedom to move in to better paid industries

No Transportation Cost

As Goods are produced at a particular place, there is no transportation cost.

Uniform Price

Since there is no transportation cost the commodity, have same price everywhere in the market.

REVENUE

The term Revenue refers to the amount of money obtained by a firm when its output is sold.

Total Revenue (TR)

The total revenue refers to the total amount of money obtained by a firm when its output is sold. Total Revenue varies with the size of output and price.

TOTAL REVENUE = Q x P

Q is the quantity sold and **P** the price per quantity of output. It should be noted that revenue is not profit. Profit is included in revenue. Profit is obtained when we deduct cost of production from the revenue.

Average Revenue (AR)

Average revenue AR is obtained by dividing total revenue by number of units of output sold. In other words, average revenue is the revenue per units of output sold. AR curve and the demand curve are the same because average revenue means per unit revenue received by the seller from the sale of the commodity

AR= TR / N.

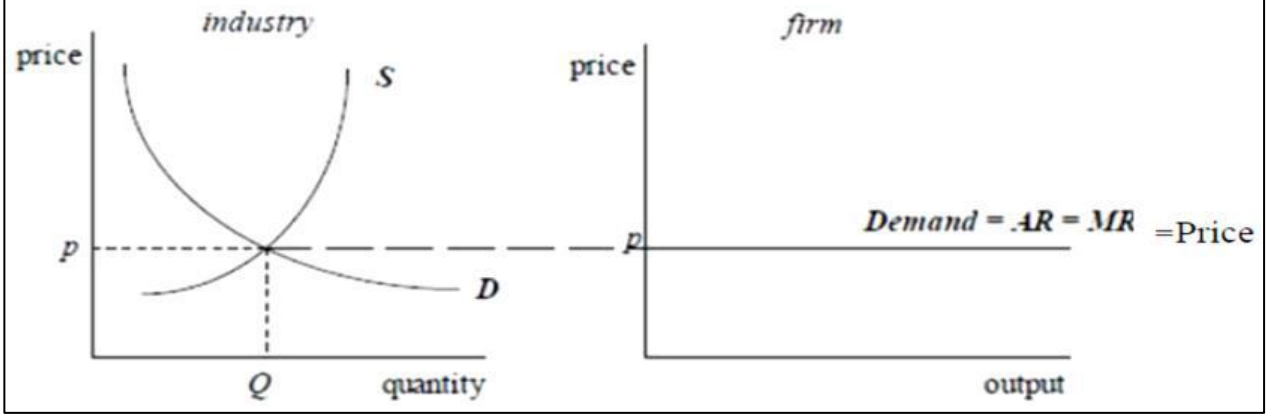
Marginal Revenue (MR)

It is the addition made to the total revenue by selling one additional unit of output. **MR= TRn- TRn-1**

Revenue Curves under Perfect Competition

In perfect competition, a firm can sell as many unit s of a commodity as it desires at the fixed price. Since additional units are sold at the same price, firm's average and marginal revenue become equal. The corresponding AR and MR curve is one and is a straight line parallel to X-axis. Thus under perfect competition AR=MR= price.

Output	Price	Total revenue	Marginal revenue
1	5	5	5
2	5	10	5
3	5	15	5
4	5	20	5
5	5	25	5



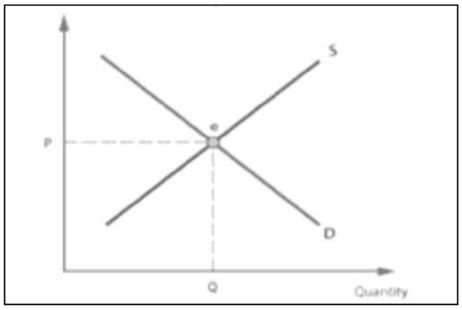
CHAPTER 5, MARKET EQUILIBRIUM

Price determination is an important and basic economic activity in an economy. As we have already said that in a free market economy, Price Mechanism provides solution for its various problems. Price Mechanism performs this function through the forces of supply and demand. The forces of supply and demand act and react with each other and determine the price. The word equilibrium is derived from two Latin word Acquus, which means equal, and Libra, which means balance.

In Economics, the term equilibrium implies a position of rest or absence of change. The opposing forces mutually cancel out each other and so the object on which pressure is applied does not move.

Equilibrium of Supply and Demand

Unit Price ₹	Q. Demand	Q. Supply
90	20	8
108	18	10
126	16	12
144	14	14
162	12	16
180	10	18
198	8	20



The above table show the supply and demand of a commodity at different prices. As the price increases, the demand falls and its supply rises. The supply and demand is moving in the opposite direction. At price ₹ 144/ Tonne the supply and demand are equal. This is the equilibrium price.

Effect Of Changes in of Supply and Demand on the Equilibrium Price

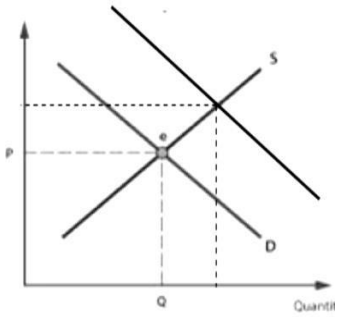
Any change in the supply and demand of a commodity will affect the equilibrium price. These changes can be studied under three heads.

1. Effect in change in demand only
2. Effect in change in supply only
3. Effect in change in supply and demand

Effect in change in Demand Only

Change in demand means increase or decrease in demand. An increase in demand means an upward shift in demand curve. Whereas decrease in demand means a downward shift in demand curve

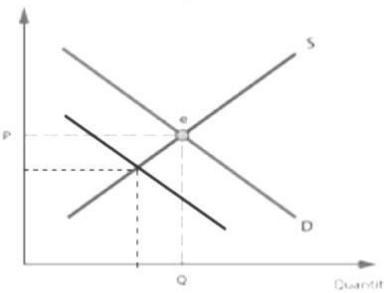
Increase in demand when the Supply Remains same



As increase in demand when the supply remains same leads to a new equilibrium. **The price and the quantity supplied increases**. The Supply curve is given and constant. DD is the original demand curve. At the equilibrium point E, the price is OP and Quantity of commodity supplied and demanded is OQ. Let us suppose that the demand curve shifts upward to the right D1D1.

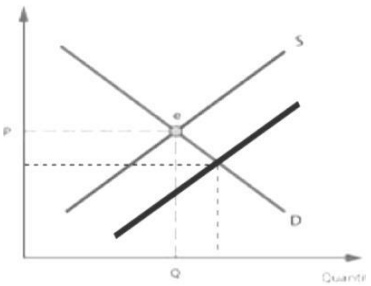
The new demand curve intersects with the supply curve at point E1. At point E, the new equilibrium price is OP1, which is greater than price Op, and Quantity of commodity supplied and demanded is OQ1, which is greater than OQ.

Decrease In Demand when the Supply Remains Same



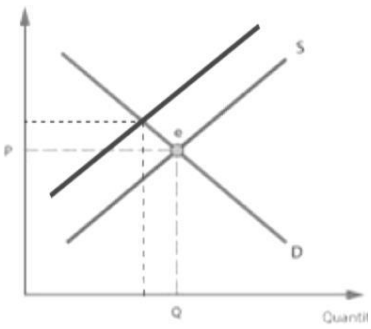
As decrease in demand when the supply remains same leads to a new equilibrium. **The price and the quantity supplied decreases.** The Supply curve is given and constant. DD is the original demand curve. At the equilibrium point E, the price is OP and Quantity of commodity supplied and demanded is O Q. Let us suppose that the demand curve shifts downward to left D1D1. The new demand curve intersects with the supply curve at point E1. At point E1, the new equilibrium price is OP1, which is less than original price OP, and Quantity of commodity supplied and demanded is OQ1, which is less than original quantity OQ.

Increase in Supply When the Demand Remains Same



An increase in supply when the demand remains same leads to a new equilibrium. The price falls and the supplied and demanded increases. The demand curve is given and constant. SS is the original supply curve. At the equilibrium point E, the price is OP and Quantity of commodity supplied and demanded is OQ. Let us suppose that the supply curve shifts to the right S1S1. The new supply curve intersects with the supply curve at point E1. At point E1, the new equilibrium price is OP1, which is less than price Op, and Quantity of commodity supplied and demanded is OQ1, which is greater than OQ.

Decrease In Supply When the Demand Remains Same



A decrease in supply when the demand remains same, leads to a new equilibrium. The price rises and the quantity supplied and demanded decreases. The Demand curve is given and constant. SS is the original supply curve. At the equilibrium point E, the price is OP and Quantity of commodity supplied and demanded is OQ. Let us suppose that the supply curve shifts to left S1S1. The new supply curve intersects with the supply curve at point E1. At point E1, the new equilibrium price is OP1, which is greater than original price OP, and Quantity of commodity supplied and demanded is OQ1, which is less than original quantity OQ

Simultaneous Changes in Supply and Demand

Simultaneous changes in supply and demand take places in following ways;

1.Both demand and Supply increases, 2. Both demand and Supply decreases, 3.Demand increases, while Supply decreases, 4. Demand decreases, while Supply increases

If there is simultaneous increase in demand and Supply and if demand increase faster, the price will increase, and if supply increase faster, the price will decline. Simultaneous decrease in demand and Supply the price will decrease if the Supply increases faster, the equilibrium price will fall, if the demand decreases faster.

SOME APPLICATIONS OF SUPPLY AND DEMAND

In a market economy, the forces of demand and supply determine the price of a commodity. Sometimes Government make interference in the price fixation. The Government interference may in the following ways.

1. Government may fix the Maximum Price in order to safe guard the interest of the consumer.
2. Government may fix the Minimum Price in order to protect the interest of the producer.

Fixation of Maximum Price

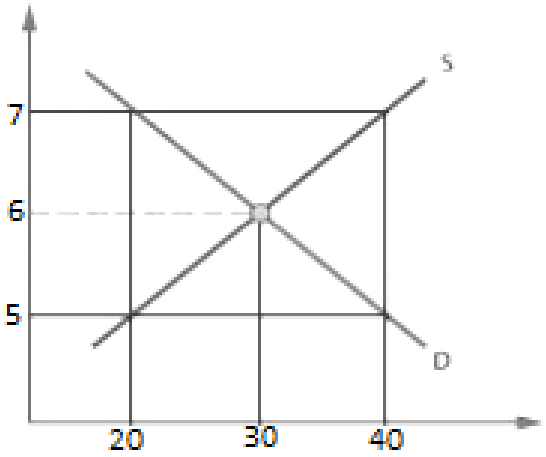
When the Government fixes price lower level than the equilibrium price, supply fall short of demand. Let us suppose that in an unrestricted market, the equilibrium price of wheat is ₹.6 per kilogram. Suppose the

Government intervene and fixes a maximum price below the equilibrium price say ₹.5 per kilogram then there will be shortage of wheat at this price. That means the supply fall short of demand. This can be illustrated with the help of following diagram.
In the diagram, the equilibrium price is ₹. 6 per kilogram and the equilibrium quantity demanded and supplied is 30 tons. When the Government fixes price lower level than the equilibrium price, say ₹. 5 per kilogram the quantity supplied falls to 20 tons and quantity demanded is 40 tons. Thus, there is a supply shortage of 20 tons. If all traders observe Government price control, the demand will remains unsatisfied. In such situation, Government will adopt the system of rationing.

Rationing means through fair price shops, Government distributes the available commodity equally to all consumers, so that all consumers are satisfied. If all traders do not observe Government price control, a black market will develop.

Black Market is a situation in which goods are sold at a higher price than Government fixed price.

Dual Marketing: To avoid black marketing, Government sometimes introduces dual marketing. Dual Marketing is a system in which certain quantity of commodity is supplied at fixed price through fair price shops and is sold in open market at equilibrium price.



Fixation of Minimum Price (Support Price)
When the Government fixes price at higher level than the equilibrium price, supply exceeds demand. Let us suppose that in an unrestricted market, the equilibrium price of wheat is ₹. 6 per kg. Suppose the Government intervene and fixes a minimum price above the equilibrium price say ₹. 7 per kilogram then there will be shortage of demand for wheat at this price. That means the demand fall short of supply. This can be illustrated with the help of above diagram.
In the diagram, the equilibrium price is ₹. 6 per kilogram and the equilibrium quantity demanded and supplied is 30 tons. When the Government fixes price higher level than the equilibrium, price say ₹ 7 per kilogram the quantity supplied is 40 tons and quantity demanded is 20 tons. Thus, there is a demand shortage of 20 tons. In this situation, the Government may purchase large amount of excess supply of wheat at its fixed price (called Support Price or Procurement Price) to protect the interest of the producers.

1. Suppose the demand and supply curves of a commodity are given by Qd=1000-P and Qs=700+2p find the equilibrium price and quantity?
2. Suppose the demand and supply curves of a commodity are given by Qd=700-P and Qs=500+3p find the equilibrium price and quantity?
3. If Qd=200-4p and Qs=100+p from the above demand and supply functions, find equilibrium price and equilibrium quantity demanded and supplied.
4. Calculate equilibrium price and equilibrium quantity for the following. QD=800-P & QS=480+P
5. QD = 100- 2p and QS = 10+2p Calculate equilibrium price & quantity
6. Mention the impact of the following
    a. Imposition of Price Ceiling below equilibrium price
    b. Imposition of Price Floor above equilibrium price

CHAPTER 6, NON-COMPETITIVE MARKET

Monopoly

Monopoly refers to that market situation where only a single producer controls the entire supply of the commodity, which has no substitutes. Absolute monopoly exists when there is only one seller or producer in the market.

FEATURES OF MONOPOLY

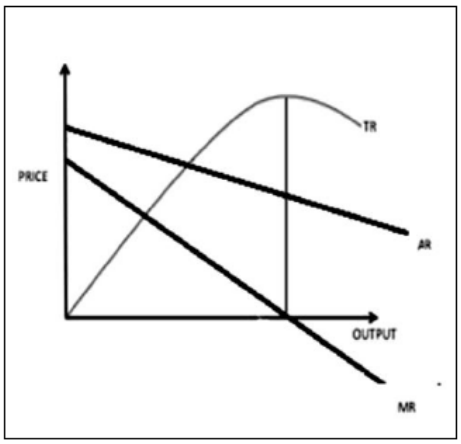
1. **Single Producer**
   There is only one producer for producing a commodity. There is no distinction between a firm and industry in a monopoly.
2. **No Close Substitutes**
   The commodity produced by the monopolist has No Close Substitute
3. **No Freedom of Entry**
   The monopolist erects strong barriers to prevent the entry of new firms.
4. **Profit Motive**
   The monopolist aims at maximisation of profit.
5. **Price Maker**
   The monopolist is a price maker. However, in order to sell more units a monopolist has to reduce the price. He cannot sell more units at the existing price.
6. **Price Discrimination**
   The monopolist is in a position to sell the same commodity or service at different prices to different buyers at different market.

TR, AR, and MR Under Monopoly

Under Monopoly, a seller can sell more units of output only at lower prices.

Unit Sold Price TR AR MR

Unit Sold	Price	TR	AR	MR
1	10	10	10	10
2	9	18	9	8
3	8	24	8	6
4	7	28	7	4
5	6	30	6	2
6	5	30	5	0
7	4	28	4	-2
8	3	24	3	-4
9	2	18	2	-6
10	1	10	1	-8



As it is clear from the above table that a firm has to lower its price of the commodity to sell more units of commodity Therefore, AR and MR fall Price is equal to AR curve and MR falls to zero and then become negative. However, AR cannot become zero even if the price becomes zero. Then it is a free good.

AR and MR Under Monopoly

Under monopoly, if the firm has to sell more units he has to reduce price of the product. How much he will reduce the price depends on the elasticity of demand for his product. So the average revenue and marginal revenue curve go on decreasing as the output increases.

From the above table the following conclusion can be drawn.

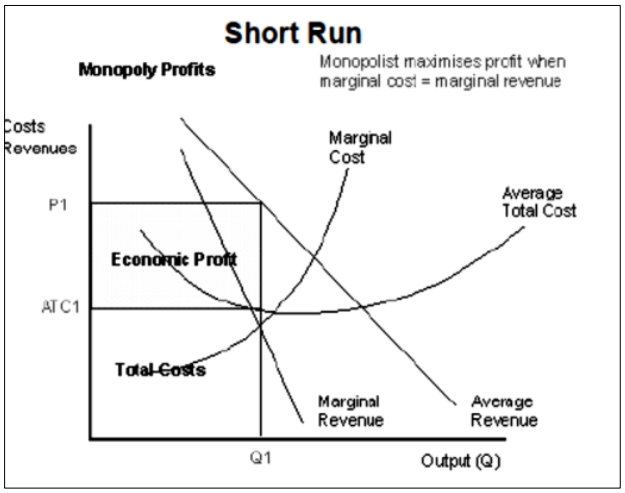
1. Price = Average Revenue
2. AR and MR continues to fall

And 3.MR falls by double the rate of AR

Price	Unit Sold	TR	AR	MR
10	1	10	10	10
9	2	18	9	8
8	3	24	8	6
7	4	28	7	4
6	5	30	6	2
5	6	30	5	0
	7	28	4	-2
3	8	24	3	-4

Price and Output Determination under Monopoly.

Since the monopolist is the single supplier of the product. Any restriction made by the monopolist would cause fluctuations in prices. If the monopolist wants to sell a large stock, he will have to reduce the price. However, if he is interested in profit maximisation he generally restricts supply. Normally the Monopolist aims at producing output that yields him maximum profit. The profit will be maximum when MC = MR



So long as the marginal revenue is greater than the marginal cost, he will be increasing profit by expending production. However, as he produce more the marginal revenue will be less than the marginal cost, he will be at loss. When MC = MR he is attaining maximum profit. Since the monopolist cannot sell the additional unit of output at the same price, he has to lower the price in order to sell more. The maximum price a monopolist can fix depends on the elasticity of demand of the commodity, which he is producing. If the commodity is elastic in demand, he has to lower the price to sell more and if it is inelastic, he can fix high price.

PRICE DISCRIMINATION

Price Discrimination means the practice of selling the same commodity or service at different prices at different markets. There are three types of Price Discrimination.

Personal Price Discrimination

Personal Price Discrimination occurs when different prices are charged to different buyers in accordance with the intensity of desire or according to ability to pay. E.g. doctors, lawyers teachers etc.

Local Price Discrimination

Local Price Discrimination occurs when different prices are charged to different locations. The monopolist may charge different prices at different localities

Trade or Use Price Discrimination

Trade or Use Price Discrimination occurs when different prices are charged to different users. E.g., the Electricity Board charges low rate for industry and high rate for household.

Dumping

The system of selling the same commodity at higher prices in the domestic market and low price at foreign market is called Dumping.

INTRODUCTORY MACRO ECONOMICS

CHAPTER 1, EMERGENCE OF MACRO ECONOMICS

Macro Economics (Birds Eye View) studies aggregate of economic unit. It deals with determination of General Price level and output in the economy. The method of study is called General Equilibrium Analysis. It is also known as Income Theory. Its studies Society which is immortal

Subject Matter of Macro Economics

It studies about the level of economic activities, total output, the general price level and overall employment in the country. It studies foreign trade and trade balances. It studies the causes of disequilibrium in Balance of Payment (BOP). It studies how Monetary and Fiscal Policies affect the Economy. It studies how economic policies can accelerate economic growth

The Great Depression of 1930s

The Great Depression lasted from 1929 to 1939 and was the worst economic downturn in the history of the industrialized world. It began after the stock market crash of October 1929, which sent Wall Street into a panic and wiped out millions of investors.

Causes

1. **Stock market crash of 1929:** Many believe erroneously that the stock market crash that occurred on Black Tuesday, October 29, 1929 is one and the same with the Great Depression.
2. **Bank Failures**
3. **Reduction in Purchasing Across the Board**
4. **Drought Conditions**

The Great Depression challenged American families in major ways, placing great economic, social, and psychological strains and demands upon families and their members. Millions of families lost their savings as numerous banks collapsed in the early 1930s

The Great Depression of 1930s' rudely leaves behind the confidence in Full Employment. Full Employment is a situation in which all factors of production in an economy are fully utilized. All the people who are willing to work at the existing wage rate will be employed.

The Classical and Neo-Classical Economists believed that there would be always Full Employment in the economy. The assumption of Full Employment was based on "***Says law of market."***

Says law of market states that "***Supply Creates its Own Demand***" that is, all that is supplied in the market must be equal to all that is demanded.

John Maynard Keynes rejected the following argument of Classical and Neo-Classical Economists in his book **General Theory of Employment, Interest, and Money**, (popularly known as **General Theory**) published in 1936..

John Maynard Keynes (Keynesian Economics)

The English Economist, Journalist, Financier, and best known for his economic theories on the causes of prolonged unemployment His most important work is The General Theory of Employment, Interest and Money (1935–36), advocated a remedy for economic recession based on a government-sponsored policy of full employment. Other important books of J M Keynes are 1. The Economic Consequences of the Peace, 2. A Tract on Monetary Reform and 3. How to Pay for the War

CLASSICAL THEORY	KEYNES THEORY
Supply creates its own demand	Supply cannot create its own demand
There is no over production	Some over production
No need of Govt. intervention	Need Govt. intervention
Full employment equilibrium	Under employment equilibrium
Analysis on supply side	Analysis on demand side
Full employment is the common	Under employment is the common

Economic Agents:

By economic units or economic agents, we mean those individuals or institutions which take economic decisions. They can be consumers who decide what and how much to consume. They may be producers of goods and services who decide what and how much to produce. They may be entities like the government, corporation, banks which also take different economic decisions like how much to spend, what interest rate to charge on the credits, how much to tax, etc.

Major Sectors of Economy

1.Household, 2.Firm or Producer 3.Government Sector 4.Foreign Trade Sector

CHAPTER 2, NATIONAL INCOME ACCOUNTING

National Income can be viewed in three ways

1. Production point of view,
2. Income point of view,
3. Expenditure point of view

National Income from Production Point of View

National income is the sum total of money value of all the final goods and services produced by normal residents of a country in an accounting year.

National Income from Income Point of View

National income the sum total of factor incomes earned by normal residents of a country in the form of rent, wages, interest and profit in an accounting year

National Income from Expenditure Point of View

National product is the net output of commodities and services flowing during the year from the country's productive system into the hands of ultimate consumers or into the addition to the country's capital goods.

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

In short, National income is either ***Money Value of all the Final Goods and Services Produced*** or ***Sum total of all factor incomes earned*** or ***sum total final expenditure*** (Consumption Expenditure + Investment Expenditure) in a year

CONCEPTS OF NATIONAL INCOME

Final Goods

All goods which are meant either for final consumption by consumers or for investment by firms are called final goods.

Intermediate Goods

Goods which are used up during process of production of other goods are called intermediate goods. Such goods always move from one stage of production to another in the manufacture of a final product. Example: In manufacturing of biscuits. Biscuits are final goods but flour, milk, sugar, salt, fuel etc. used in making biscuits are intermediate goods.

Final Expenditure

It is the expenditure made on purchase of final goods and services for final consumption and investment.

Intermediate Expenditure

It is the expenditure made by a firm on purchase of goods and services from other firms to be used as raw material or for resale in the same year.

Consumption Goods

Goods which are consumed by the ultimate consumers or meet the immediate needs of the consumer directly are called consumption (or consumer) goods.

Durable Goods

Durable consumer goods (called consumer durables) ***have relatively long life and undergo wear and tear with gradual use.*** Example: - Cars, TV sets, Computers, fridge, furniture etc.

Semi-Durable Goods

Semi-durable consumer goods are those goods which can be ***used for a period of one year or slightly more***. Example: - Clothes, crockery, electric goods, etc.

Non-Durable or Perishable Goods

Non-Durable Consumer goods are those goods whose ***lifetime of use is comparatively small and are not of high value***. Examples: Food, vegetables, milk, meat etc. Services such as rendered by hired servants, recreation, medical care, and transport services availed by consumers are non-durable/ single use consumer goods.

Services

Services are those non-material goods which directly satisfy the wants. A few examples of services are the services of a doctor, teacher, lawyer, domestic servant etc.

Capital Goods

Durable goods which are bought not for meeting immediate needs of the consumer but for producing other goods are called capital goods. Example: tools, implements, plants, machines, buildings.

Capital Formation (Investment).

Capital formation is the important function of an economy. Capital formation is the net addition to the capital stock of an economy during a given period

Stock Variables

A stock is a quantity which is *measurable at a point of time.* Examples of stocks are wealth, foreign debts, loan, inventories (not change in inventories), opening stock, money supply (amount of money), population, water in a tank etc.

Flow Variables

A flow is a quantity which is ***measured over a period of time.*** Thus, flows are defined with reference to a specific period (length of time), e.g., hours, days, weeks, months or years. It has time dimension. National income is a flow.

Distinction between Stock And Flow Variables

The distinction between stocks and flows can be easily understood by comparing the actions of a still camera (which records position at a point of time) with that of video camera (which records positions during a period of time).

Investment

Investment means addition to the stock of capital goods such as structures, equipment or inventory. It implies creation or addition of physical assets which are used to augment the productive capacity of the economy in future.

Gross Investment

It is addition to the capital stock which also includes replacement cost for the wear and tear that the capital stock undergoes over a period of time. Here Investment is expressed as Gross Investment, which includes Depreciation

Net Investment

When we deduct depreciation from Gross Investment, we get net investment.

NET INVESTMENT = GROSS INVESTMENT – DEPRECIATION

Depreciation or Consumption of Fixed Capital

Depreciation means loss in the value of fixed asset due to ***normal wear and tear and expected obsolescence*** is called consumption

of fixed capital. This is sometimes also called **Current Replacement Cost**.

Normal Wear and Tear

During production process, capital goods like machines, tools, buildings, trucks, rail engines, roads etc. wear out. This depreciation or fall in value due to normal wear and tear is called consumption of fixed Capital

Obsolescence

Obsolescence is another reason for depreciation. Obsolescence refers to the loss of value of a fixed asset due change in technology or due to change in demand for goods and services.

Domestic Territory

Domestic territory or Economic territory is the geographical territory administered by a government within which persons, goods and capital circulate freely

Domestic Territory Includes

1. Ships and aircraft owned and operated by the resident between two or more countries.
2. Fishing vessels, oil and natural gas rigs and floating platforms operated by the residents of a country in the international waters or areas where the country has exclusive rights for operation.

3. Embassies, consulates and military establishments of the country located abroad.

Domestic Territory does not include.

1. Territorial enclaves (like embassies) used/ administered by foreign governments.
2. All International organizations which are physically located within geographical boundaries of a country. Their offices form a part of international territory.

Normal Resident

A normal resident is said to be a person (or an institution) who ordinarily resides in a country and whose center of economic interest lies in that country. The period of stay should be at least one year or more

Normal Residents Includes

1. Both nationals and non-nationals residing in a country for more than a year.
2. The staffs of international bodies are treated as normal residents of the country in which the international body operates.
3. Local employees working in foreign embassies located in their country are treated as normal residents.
4. Workers from across the border who cross border in the morning to work in the other country and return in the evening are treated as normal resident of the parent country.

Normal Residents Does Not Include

1. International Bodies (like World Bank, World Health Organization or International Monetary Fund) are not considered residents of the country in which these organizations operate but are treated as residents of international territory.
2. Students and medical patients staying abroad are treated as normal residents of their home country even if their stay in the host country is for more than one year

National Income At Current Prices

If goods and services produced in 1 year are valued at current prices, i.e., prices prevailing in that particular year, we get national income at current prices. National income at current prices are called Nominal National Income

National Income At Constant Prices Or Real National Income

If goods and services produced in a year are valued at fixed prices, i.e., prices of the base year, we get national income at constant prices. A base year is carefully chosen year which is a normal year free from price fluctuations. (In India now 2011-12 is treated as base year)

Market Price

Market Price = Factor Cost + Indirect Taxes – Subsidies or Factor Cost + Net Indirect Taxes (Net Indirect Tax = Indirect Taxes - Subsidies)

Net Factor Income From Abroad (NFIA)

NFIA = factor income earned from abroad by normal residents or country - the factor income earned by nonresidents (foreigners)

Value of Output

Money value of output of an enterprise is obtained by multiplying its physical output of goods and services with its market price

Symbolically: Value of Output = Quantity of Output x Price or Value of Output = Sales + Change in stock

Value Added

It refers to the addition of value to the raw material (intermediate goods) by a firm by virtue of its productive activities. Symbolically:

Value Added = Value of output – Intermediate Consumption

NVA at FC = Value of output - intermediate consumption - depreciation - net indirect taxes

FACTOR PAYMENT (Income)	TRANSFER PAYMENT (Income)
Comprises rent, wages, interest and profit.	Comprises gifts, subsidies donations, scholarships etc.
Received in return for rendering productive services.	Received without rendering productive services in return.
Earned income (earning concept).	Unearned income (receipt concept).
Bilateral payment. (Two Way)	Unilateral Payment. (One Way)
Included in national income.	Not included in nation income

SOURCES OF DOMESTIC INCOME

Domestic income is the sum of factor incomes generated by all the producing units located within domestic territory of a country in accounting year. Following are the three components of domestic income.

1. **Compensation of Employees**

It refers to all payments and other measurable benefits which the employees receive directly and indirectly in return for rendering productive services. Example: Wages and salary in cash, Compensation in kind (like rent free quarter, free ration etc.) Employer's contribution to social security schemes (like provident fund maternity benefits, Life insurance etc.)

2. **Operating Surplus**

Operating surplus is sum of rent, interest and profit. Alternatively, operating surplus is income from property (rent + interest) and income from entrepreneurship (profit). Royalty is also included in rent.

3. **Mixed Income of Self-Employed**

Income of self-employed person and unincorporated enterprises which use their own resources (land labour, capital etc.) is called mixed income of self-employed.

Closed Economy & Open Economy

Closed Economy: A country which has no economic relations with the rest of the world Here Y= C+I+G

Open Economy: A country which has economic relations with the rest of the world Here Y=C+I+G+(X-M)

CIRCULAR FLOW OF INCOME AND EXPENDITURE

It refers to flow of money, income or the flow of goods and services across different sectors of the economy in the circular flow

Two Types of Circular Flow

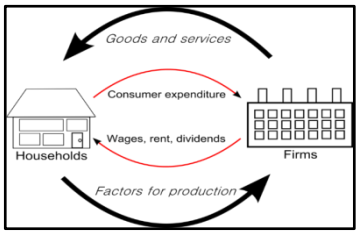
1. **Real / Product / Physical Flow**

Real flow of income implies the flow of factors services from household sector to the producing sector in the form of land, labour, capital and organisation and Good and services to the household sector

2. **Money / Monetary / Nominal Flow**

Money flow of income implies the flow of factors payments from producing sector to the household sector in the form of rent, labour, interest and profit and expenditure to Good and services from household sector

CIRCULAR FLOW OF INCOME – TWO SECTOR MODEL (WITHOUT SAVINGS)



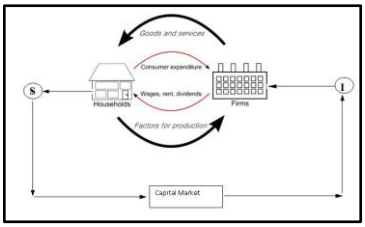
Simple model involving two sectors namely -household sector and firm sector No Government or foreign sector. It is a Closed Economy No saving -No investment

Injection & Leakages

Injection: - It refers to the additions to the circular flow. An injection causes expansion of the circular flow. Example Government expenditure, export and investment

Leakages: - It refers to the withdrawals from the circular flow. Leakages cause contraction of the circular flow. Savings is an example of Leakage.

CIRCULAR FLOW OF INCOME – TWO SECTOR MODEL (WITH SAVINGS)



Simple model involving two sectors namely - household sector and firm sector No Government or foreign sector. It is a Closed Economy with Saving & Investment

MEASUREMENT OF NATIONAL INCOME

1. **Product** Method

Net Value added in primary sector at factor cost + Net value added in secondary sector at factor cost + Net value added in tertiary sector at factor cost + Net Factor income from abroad +Net Indirect Taxes + Consumption of fixed capital (Depreciation) = **GNP AT MARKET PRICES**

2. **Income Method**

Compensation of Employees + Operating surplus + Mixed income Employed + Net Indirect Taxes + Consumption of fixed capital (Depreciation) + Net Factor income from abroad **= GNP at MARKET PRICES**

3. **Expenditure Method**

Private final consumption expenditure + Govt. final consumption Expenditure + Gross Capital formation+ Net Exports + Change in Stock + Net Factor income from abroad **= GNP at MARKET PRICES**

Items to be Included

1. Rent of Owner-occupied houses
2. Production for self-consumption

Items to be Excluded

1. All transfer Payments
2. Illegal Incomes – Smuggling, black Marketing etc.
3. Corporate taxes
4. Wind fall gains from lotteries
5. Income from the sale of secondhand goods.
6. Service of Housewives
7. Works done as a hobby
8. Interest on National Debt
9. Expenditure on old shares and bonds
10. All expenditure on intermediate goods and services

Difficulties of National Income Measurement

1. Problem of double counting
2. Difficulty to convert value of goods and services in terms of money
3. Problem of measuring Capital Depreciation.
4. Income earned through illegal Activities
5. Difficulty of including Transfer Payments
6. Price Change
7. Abundance of Public Services
8. Problem of inventory Adjustments

Double Counting

Counting the value of commodities at every stage of production more than once is called double counting.

It can be avoided by

1. Adopting **Value Added Method** in the calculation of the national income.

2. Taking the **Value of Final Commodity** only while calculating national income.

CHAPTER-3 MONEY & BANKING

Meaning of Money

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

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

Functions of Money

1. **Primary Function**: Medium of Exchange, Measure of Value
2. **Secondary Function:** Unit of Account, Standard of Deferred payments, Store of Value and Transfer of Value
3. **Contingent Functions:** Distribution of National Income, Maximization of Satisfaction, Basis of Credit System and Liquidity to Wealth

Evolution of Money

1. **Commodity Money**: In olden days various commodities are used as money. Cow, Seashells, hides, leather, precious stones, etc. were used.
2. **Metallic Money:** Precious metals like gold & silver were used as Money
3. **Paper Money:** In order to avoid the inconvenience of Metallic Money Paper Money is introduced.
4. **Deposit or Bank or Credit Money:** Plastic money like ATM Card, Debit Cards, Credit Cards, and Purchase Vouchers etc. are the new form of money.

Supply of Money

It refers to the stock of Money held by the public at a particular point of time for transaction and store of wealth.

Components of Money

1. Currency held with Public 2. Demand Deposits with the Banks

The India Monetary System

The present currency system in India is managed by the Reserve Bank of India and is based on inconvertible paper currency system.

The present system of issuing notes in India is based on the MINIMUM RESERVE METHOD. Minimum Reserve to be maintained by the Reserve Bank is Rs. 200 cores, of which not less than Rs 115 crores should be kept in gold coins and bullion.

Money Supply in India

It refers to total volume of money held by public at a particular point of time in an economy

M1 = Currency held by public + Demand deposits + other deposits with Reserve Bank of India.

M2 = M1+ Saving deposits with post office saving bank

M3 =M1+Net time deposit with the bank

M4 = M3 + Total deposits with post office saving bank excluding national saving certificate

Legal Tender

Legal tender refers to the money which can be legally used to make payment of debts or other obligations.

Fiat Money

Fiat money refers to the money which is backed with order of the government under law. It must be accepted for all debts.

High Powered Money

High powered money is the total liability of the monetary authority of the country. This is also called the monetary base and is created by the RBI. High powered money includes currency (notes and coins), deposits with the government and reserves of commercial banks with RBI. So, to sum up, high powered money is

H = C + R, Where H = High powered money, C = Currency, R = Cash Reserves of commercial banks

Liquidity Preference

Money is the most liquid assets. Money commands universal acceptability. Everybody likes to hold assets in form of cash money. If at all they surrender this liquidity they must be paid interest. The preference of investors for holding liquid assets rather than securities or long-term interest-bearing investments is called Liquidity Preference

Demand for Money

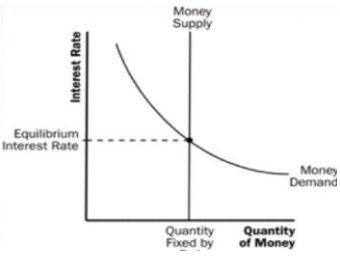
1. **Transaction Motive:** Individual demand money for his day-to-day transaction
2. **Precautionary Motive:** People demand to hold money with them to meet the unforeseen contingencies.
3. **Speculative Motive:** People want to keep Money with them to take advantage of the charges in the price of bonds and securities.

Supply Money

The aggregate supply of money in a community at any time is the sum of money stock of all the members of the society.

Equilibrium Rate of Interest

The rate of interest is determined by the demand for money and supply of money. The equilibrium rate of interest is fixed at that point where supply of and demands for money are equal. If the rate of interest is high peoples demand for money (liquidity preference) is low. The liquidity preference function or demand curve states that when interest rate falls, the demand to hold money increases and when interest rate raises the demand for money diminishes.



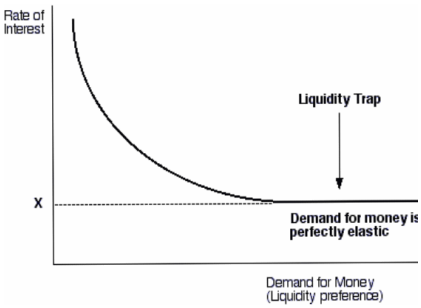
Speculative Demand for Money and Rate of Interest

Where r = market rate of interest,

$\mathbf{r}_{max}$ = upper limit of market rate of interest,

$\mathbf{r}_{min}$ = lower limit of market rate of interest

$$M_s^d = \frac{r_{max} - r_.}{r_. - r_{mini}}$$



Liquidity Trap

Liquidity trap is a situation where market rate of interest reaches r minimum the speculative demand curve will be parallel to x axis

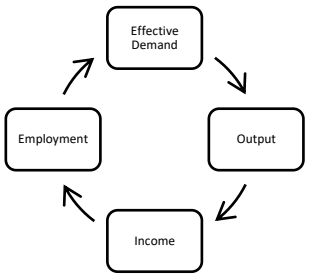
CHAPTER-4 DETERMINATION OF INCOME & EMPLOYMENT

The Classical and Neoclassical Economists believed that there would be always Full Employment in the economy. The assumption of Full Employment was based on ***"Says Law of* Market."** Says Law of Market states that ***"Supply Creates its Own Demand"*** that is, all that is supplied in the market must be equal to all that is demanded. *John Maynard Keynes* rejected the following argument of Classical and Neoclassical Economists in his book General Theory of Employment, Interest, and Money, (popularly known as General Theory) published in 1936.

Keynes says

1. There could not be equality between Aggregate demand and Aggregate Supply automatically and hence no chance of Full Employment.
2. The situation of Full Employment rarely exists. That is, Aggregate Demand could fall in short of Aggregate Supply, so the situation of Full Employment is disturbed.
3. This is the situation of involuntary unemployment where person willing to work at the prevailing wage rate finds no employment

According to Keynesian Theory, Employment Depends on Effective Demand. Effective Demand Results in Output. Output Creates Income. Income Provides Employment. Employment Generates Effective Demand. Thus, larger volume of the employment larger will be the national income. To Keynes only increasing employment can raise income.



Effective Demand

The core of Keynesian theory is that the volume of employment in an economy depends on the level of Effective Demand. ***Effective Demand is determined at the point where Aggregate Demand is equal to Aggregate Supply***

Aggregate Demand and its Components

Aggregate demand is the total demand for the existing output at prevailing prices. That is, Aggregate Demand is the total demand or the total expenditure of the community on goods and services purchased. Aggregate demand consists of

1. Household Consumption Demand, 2.Investment demand, 3.Government Demand for Goods and Services 4.Net foreign demand

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

Private Consumption Demand (C)

It is defined as the value of all goods and services that household are willing or planning to buy. Alternatively, it refers to ex-ante (planned) Consumption Expenditure to be incurred by all households on purchase of goods and services.

Private Investmen Demand (I)

It refers to planned (ex-ante) expenditure on creation of new capital assets like machines, buildings, raw materials by private entrepreneur. It comprises of expenditure on

1.Fixed Assets, 2.Inventories and 3.Residential Constructions

Government Demand (G)

It refers to government planned (ex-ante) expenditure on purchase of consumers and capital goods to fulfill common needs of the society like schools, transports, hospitals, roads, power and health.

Net Foreign Demand (X-M)

Net Export demand is defined as aggregate of all demand for our goods and services by foreign countries' goods and services. **Net Exports = Exports(X) - Imports (M)**

HOUSEHOLD CONSUMPTION DEMAND (CONSUMPTION FUNCTION)

The level of Household Consumption Demand depends on the level of disposable income of the household. The Relationship Between Level of Disposable Income and Level of Consumption Is Called Propensity to Consume.

Total Disposable Income = Total Personal Income – Total Direct Taxes

There is direct relationship between the level of disposable income and level of consumption. As disposable income increases, total consumption expenditure also increases. Thus, we can say that consumption is a function of income. **C= f (Y)**

Psychological Law of Consumption is that the rate of increase in consumption expenditure is less than the rate of increase in disposable income.

Even at zero level of income, there is consumption because individual and community cannot survive without minimum level of consumption. Consumption at zero level of income is called **Autonomous Consumption**.

Propensity to Consume does not mean desire to consume. It means actual expenditure on consumption.

Consumption above the autonomous consumption is called **Induced Consumption**.

Propensity to Consume is more with the poor people than with the rich people. (Due to their lower income, poor people spent their whole income for consumption as their income increases.)

AVERAGE PROPENSITY TO CONSUME (APC)

Average Propensity to Consume (APC) is the total consumption expenditure of the people divided by the total income of the people.

For example: total income ₹.1000crs, Total consumption is ₹.800crs. Then APC = C/Y = 800/1000= 0.8 That is, 80% of the income is spending on consumption.

$$APC = \frac{\text{Total consumption}}{\text{Total income}} = \frac{C}{Y}$$

Marginal Propensity to Consume (MPC)

Marginal Propensity to Consume is Increase in the consumption expenditure due to increase in income. In other words, it is the ratio between change in consumption and change in income. For example; change in consumption is ₹.300crs. Change in Income is ₹.500crs. Then MPC = ΔC/ ΔY =300/500 = 0.6 That is, 60 % of the additional income is spent on consumption.

$$MPC = \frac{\text{Change in consumption}}{\text{Change in income}} = \frac{\delta C}{\delta Y}$$

PROPENSITY TO SAVE

A corollary to the concept of Propensity to Consume is the Propensity to Save. Disposable income may be either saved or consumed. As income increases the savings also increases. The relationship between level of disposable income and level of savings is called Propensity to save or Saving Function.

Average Propensity to Save (APS)

Average Propensity to Save (APS) is the total savings of the people divided by the total income of the people. For example: total income is ₹.700crs. Total Savings is ₹.100crs. Then APS=S/Y =100/700= 0.14. That is, 14% of the income is saved

$$APS = \frac{\text{Total Savings}}{\text{Total income}} = \frac{S}{Y}$$

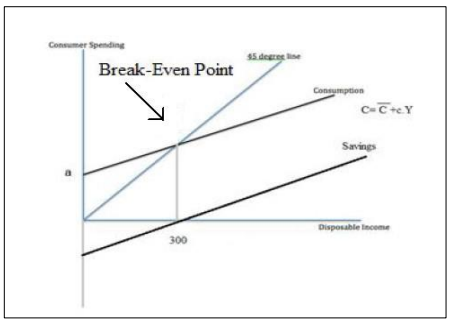
MARGINAL PROPENSITY TO SAVE (MPS)

Marginal Propensity to save is Increase in the savings due to increase in income. In other words, it is the ratio between change i n savings and change in income. For example; change in savings is ₹ 300crs. Changes in Income is ₹ 500crs. Then MPS = ΔS/ΔY = 300/500 = 0.6 That is, 60 % of the additional income is saves

$$MPS = \frac{\text{Change in Savings}}{\text{Change in income}} = \frac{\delta S}{\delta Y}$$

The following table will illustrate the above concepts

Disposable Income	Consumption	Savings	APC	MPC	APS	MPS	APC+APS
100	200	-100	2.00	0.5	-1	0.5	1
200	250	-50	1.25	0.5	-0.25	0.5	1
300	300	0	1.00	0.5	0	0.5	1
400	350	50	0.88	0.5	0.125	0.5	1
500	400	100	0.8	0.5	0.2	0.5	1
600	450	150	0.75	0.5	0.25	0.5	1
700	500	200	0.71	0.5	0.29	0.5	1
800	550	250	0.68	0.5	0.31	0.5	1



At zero level of income, autonomous consumption is Rs.100crs. This *consumption* is made from the past savings; borrowing etc. Therefore, savings is negative as consumption exceeds disposable income until disposable income reaches ₹.300crs. When disposable income reaches ₹.300crs, it will be equal to consumption. This is the Break-Even Point. Beyond the breakeven point people starts saving as disposable income increases.

Keynesian Investment Multiplier

Multiplier implies the cumulative effect of investment upon income. Keynes borrowed this concept from R.F. Khan. Investment Multiplier is the ratio of total change in income due to initial change in investment. It can be expressed mathematically as

$$\Delta Y = K.\Delta I,$$

$$K = \frac{\Delta Y}{\Delta I} = \frac{1}{mps}$$

Where K is the multiplier, ΔY Changes in income ΔI Changes in investment

Relationship Between MPC and MPS

Propensity to Consume need not be constant throughout. It usually declines as the disposable income increases. Hence, MPC declines as the disposable income increases.

MPC is the complement of MPS. MPC can be derived from MPS

$\delta Y = \delta C + \delta S$

Dividing both side by δY

$\frac{\delta Y}{\delta Y} = \frac{\delta C + \delta S}{\delta Y}$

$1 = \frac{\delta C}{\delta Y} + \frac{\delta S}{\delta Y}$

$1 = MPC + MPS$ or $MPS = 1 - MPC$

Multiplier, MPC, and MPS

The value of the multiplier is determined by MPC. Whether the multiplier is large or small depends on the size of MPS. Multiplier can work in the reverse direction depending on the direction of initial investment.

$K = \frac{1}{MPS}$ or. $K = \frac{1}{1-MPC}$

For example, the investment increased by ₹.500crs. , MPC = 1,

Then $K = \frac{1}{1-1} =$ in inity

Investment Function

Investment means the expenditure to make manmade investment of production like, machines, equipment, buildings etc. to increase the productive capacity of an economy. Investments are of two types:

Autonomous Investment

Autonomous investment is the expenditure on capital formation, which is not influenced by the level of income and rate of interest. The level of income and rate of interest does not change the level of autonomous investment. Government expenditure on public utilities such as roads, railways communication etc. are the examples of Autonomous investment.

Induced Investment

Production in a capitalist economy is profit oriented. Sine profit is the prime goal of the entrepreneur they are induced to invest only when they expect to get profit. To examine the profitability of an investment Keynes introduced the concept of Marginal Efficiency of Capital (MEC)

Marginal Efficiency of Capital (MEC)

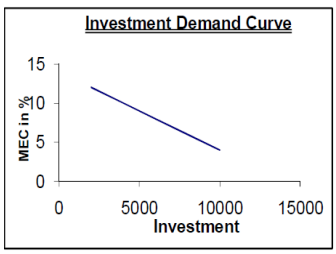
Marginal Efficiency of Capital (MEC) refers to the expected rate of return or expected profitability. According to Kenneth Kunihara, marginal efficiency of capital is the ratio between prospective yield of additional capital asset and their Supply price.

That is, e =Q/P

Where e is MEC, Q is prospective yield of additional capital asset and P is the supply price. MEC depend on two factors. They are Prospective Yield of Additional Capital Asset and Supply Price.

Investment Demand Schedule

Investment demand schedule shows the functional relationship between MEC and the amount of capital invested.



MEC and Rate of Interest

MEC and Rate of Interest are the two factors determining the volume of investment. The factors are determined beforehand independently of each other. Marginal efficiency of capital is the ratio between prospective yield of additional capital asset and their Supply price while rate of interest is determined by liquidity preference and supply of money. A prospective investor will make investment only when Marginal Efficiency of Capital

(MEC) is greater than the rate of interest. The volume of investment will continue as long as Marginal Efficiency of Capital (MEC) and rate of interest is equalised.

Government Demand

Present day government believe in the concept of welfare state. It undertakes productive and unproductive expenditure. Marginal

Efficiency of Capital (MEC) and rate of interest do not guide the Government investment.

Net Foreign Demand

The balance of export over import is called net foreign demand. Net foreign demand depends on factors like income, price elasticity of demand, foreign trade policy, foreign exchange rate etc.

DETERMINATION OF INCOME IN TWO-SECTOR MODEL

In two sector economy (household and Firm) ex-ante aggregated demand AD for final goods is the sum total of ex-ante consumption expenditure (C) and ex-ante investment expenditure (I)

Thus AD = C + I

Ex-Ante Consumption Expenditure (C)

Ex-ante consumption expenditure (C) can be represented by C = $\overline{C}$ +bY where $\overline{C}$ indicates autonomous consumption, b shows marginal propensity to consume (MPC) and Y stands for level of income.

Ex-Ante Investment Expenditure (I)

Ex-ante investment expenditure (I) can be represented by I = $\overline{I}$ where $\overline{I}$ indicates autonomous investment.

Equilibrium Condition

An economy is in equilibrium when Aggregate Demand is equal to Aggregate Supply (AD = AS). AD consist of Consumption Expenditure (C) and investment expenditure (I). So, AD = C + I. Aggregate supply AS or total output represent national income (Y)

Thus AS = AD or Y = C + I

= $\overline{C}$ + bY + $\overline{I}$ (Because C = $\overline{\boldsymbol{C}}$ + bY and $I = \overline{\boldsymbol{I}}$)

= $\overline{C} + \overline{I} + bY$

Y = $\overline{A}$ + bY where $\overline{A} = \overline{C} + \overline{I}$ showing total autonomous expenditure

Thus, equilibrium is

Ex- ante (Planned) supply of final goods (Y) = Ex-ante (Planned) demand for final goods $\overline{A}$ + bY

CHAPTER 5, GOVERNMENT BUDGET AND THE ECONOMY

Budget

It is an annual statement of the estimated Receipts and Expenditures of the Government over the fiscal year which runs from April 1st to March 31st.

GOVERNMENT BUDGET is divided in to two: **REVENUE BUDGET AND CAPITAL BUDGET**

REVENUE BUDGET is divided in to two: Revenue Receipts and Revenue Expenditure

Revenue Receipts is divided into two: Tax Revenue and Non-Tax Revenue

Revenue Receipts

Any receipt, which does not either, creates a liability or lead to the reduction in assets is called a revenue receipt. it includes tax and non-tax revenue Tax Revenue includes direct and indirect tax. Non-Tax Revenue includes receipts from Commercial revenue, administrative revenue, interest, dividend, profit, and external grants.

Tax Revenue includes Direct Tax (e.g. Income Tax, Interest Tax, Wealth Tax, and Estate Duty) and 2. Indirect Tax Revenue (e.g. Goods and Service Tax (GST), Customs Duties, Excise Duties, Sales Tax)

Non-Tax Revenue Includes Receipts from Commercial Revenue, Administrative Revenue, Interest, Dividend, Profit and External Grants.

Examples of Non-Tax Revenue

1. **Commercial Revenue** Examples-Payments for postage, toll, and interest on funds borrowed from government credit corporations, electricity, Railway services.

2. **Administrative Revenue** Examples: Fees, fines, penalties etc.

3**. Gifts and Grants**

Revenue Expenditure

An expenditure that does not result in creation of assets or reduction of liability is treated as Revenue Expenditure. Such expenditure is incurred for the normal running of the government. For example: expenditure such as salaries, pensions, interest, subsidies, etc.

CAPITAL BUDGET is divided in to two: ***Capital Receipts and Capital Expenditure***

Capital Receipts:- Any receipt, which creates a liability or lead to the reduction in assets, is called a capital receipt.

Recoveries from Loans: - It includes recovery of loans granted by the central Government to the state Government. It is a capital receipts because it reduces the financial assets of the Government.

Borrowing and Other Liability: -The funds raised from borrowings are treated as capital receipts.

Other Receipts: - Other receipts include capital receipts from disinvestments of Government shares of a public sector unit.

Capital Expenditure

An expenditure that leads to creation of assets or reduction of liability is treated as capital Expenditure. Purchases of land, building, machines, etc. are the examples of capital expenditure. It includes Plan Expenditure and Non Plan Expenditure

Developmental and Non-Developmental Expenditure

Expenditure on activities, which are directly related to economic and social development of a country is called ***Developmental Expenditure***. Expenditures on industry, agriculture, education, health, social welfare, etc. are the examples of Developmental Expenditure.

Expenditure on essential general service of the Government is called ***Non-Developmental Expenditure***. Expenditure on defense and administration are the examples of non–developmental expenditure. Non-developmental expenditure is an essential part of the development process.

Balanced, Surplus and Deficit Budgets.

1. **Balanced Budget**: - It is one where the estimated revenue equals the estimated expenditure.
2. **Surplus Budget**: - It is one where the estimated revenue is greater than the estimated expenditures.
3. **Deficit Budget**: - It is one where the estimated revenue is less than the estimated expenditure

Different Concepts of Budget Deficit

1. **Budgetary Deficit**: -It is the total receipts minus total expenditure of Government on both revenue and capital accounts ***Budgetary Deficit = Total Budget Receipts – Total Budget Expenditure***
2. **Revenue Deficit: -** Revenue deficit is the excess of Government's revenue expenditure over revenue receipts. ***Revenue Deficit = Revenue Receipts – Revenue Expenditure***
3. **Fiscal Deficit: -** is the ***Budgetary Deficit plus borrowing and other liability***. Significance of fiscal deficit is that it is a measure of total borrowing requirements of the Government.
4. **Primary Deficit: -**it is the difference between fiscal deficit and interest payments

Fiscal Deficit and its Problems

Fiscal deficit creates many problems in the economy. Government liability in future increases because it as to pay the interest and repay the loan. Payment of interest increases revenue expenditure Increases revenue

expenditure may lead to revenue deficit. This may further lead to more borrowing and more interest payments. This creates a vicious circle. The Government should try to reduce the Fiscal Deficit.

CHAPTER-6 OPEN ECONOMY

BALANCE OF TRADE

Balance of trade is the difference between the money value of exports and imports of material goods ***(visible item)***

BALANCE OF PAYMENTS

Balance of payments is a systematic record of all economic transactions between residents of a country and the residents of foreign countries during a given period of time. ***It includes both visible and invisible items. Balance of Payments gives a good picture of a country's economic transactions with the rest of the world than the balance of trade***

Accounts of Balance of Payments:

1. **Current Account:** The current account records export and import of goods and services and unilateral transfers.

2. **Capital Account:** It records of all such transactions between normal residents of a country and rest of the world which relates to sale and purchase of foreign assets and liabilities during an accounting year.

Components of Current Account	**Components of Capital Account**
1. Visible items (import and export of goods).	1. Foreign Direct investment.
2. Invisible items (import and export of services).	2. Loans.
3. Unilateral transfers.	3. Portfolio investment.
4. Income receipts and payments from and to abroad.	4. Banking capital transactions.
5. These are the transactions which do not affect the assets or liabilities position of the country.	5. These are the transactions which affect assets or liabilities position of the country.
6. It is a flow concept.	6. It is a stock concept.

The study notes doesn't claim all comprehensive and is subject to supplementation