

MANAGERIAL ECONOMICS

Syllabus

Unit I:

Micro Economic Theory: Concept of macro- and microeconomics & their definition; Demand: meaning, factors affecting demand, individual demand, market demand, movement and shift of demand curve, exceptions to the Law of Demand.

Law of Diminishing Marginal Utility, Consumers equilibrium through utility approach with demand schedule and graph.

Elasticity of demand: Price elasticity of demand, income elasticity of demand, cross price elasticity of demand.

Unit II:

Theory of consumer behaviour : cardinal utility theory, ordinal utility theory(indifference curves).

Concept of product and production function: returns to a factor, total, average and marginal physical products, Law of Variable Proportions and its three stages, returns to scale.

Unit III:

Market Structure: Basic features, characteristics, properties and demand curves of perfect competition ; monopoly; monopolistic competition; oligopoly, kinked demand curve model.

Macro Economic Theory: Meaning & Importance, Functioning of Macro Economic System

National Income : Circular flow of Income, Concepts of GDP, GNP, NDP and NNP, Problems and difficulties in measurement of national income.

Unit IV:

India and the World Economy: Globalization and the Indian economy; Brief Overview India's Foreign Trade- Balance of Payment, Challenges and Opportunities of International Finance; Impact of Monetary and Fiscal Policy on Indian Economy. Recent Advances in Managerial Economics.

UNIT I

INTRODUCTION

Introduction

The term “economics” has been derived from a Greek Word “Oikonomia” which means „household“. Economics is a social science. It is called „social“ because it studies mankind of society. It deals with aspects of human behavior. It is called science since it studies social problems from a scientific point of view. The development of economics as a growing science can be traced back in the writings of Greek philosophers like Plato and Aristotle. Economics was treated as a branch of politics during early days of its development because ancient Greeks applied this term to management of city-state, which they called „Polis“. Actually economics broadened into a full fledged social science in the later half of the 18th century.

Definition of Economics

Classical economists like Adam Smith, Ricardo, Mill Malthus and others; socialist economist like Karl Marx; neo-classical economists like Alfred Marshall, AC Pigou and Lionel Robbins and modern economists like JM Keynes, Samuelson and others have made considerable contribution to the development of Economics. Hence a plethora of definitions are available in connection with the subject matter of economics. These are broadly divided into

- A. Wealth Definition,
- B. Welfare Definition,
- C. Scarcity Definition and
- D. Growth Definition

A. Wealth Definition

Really the science of economics was born in 1776, when Adam Smith published his famous book “An Enquiry into the Nature and Cause of Wealth of Nation”. He defined economics as the study of the nature and cause of national wealth. According to him, economics is the study of wealth- How wealth is produced and distributed. He is called as “father of economics” and his definition is popularly called “Wealth definition”. But this definition was severely criticized by highlighting the points like;

- Too much emphasis on wealth,
- Restricted meaning of wealth,
- No consideration for human feelings,
- No mention for man’s welfare
- Silent about economic problem etc...

B. Welfare Definition

It was Alfred Marshall who rescued the economics from the above criticisms. By his classic work “Principles of Economics”, published in 1890, he shifted the emphasis from wealth to human welfare. According to him wealth is simply a means to an end in all activities, the end being human welfare. He adds, that economics “is on the one side a study of the wealth; and the other and more important side, a part of the study of man”. Marshall gave primary importance to man and secondary importance to wealth. Prof. A C Pigou was also holding Marshall’s view. This definition clarified the scope of economics and rescued economics from the grip of being called “Dismal science”, but this definition also criticized on the grounds that welfare cannot be measured correctly and it was ignored the valuable services like teachers,lawyers,singers etc (non-material welfare)

C. Scarcity Definition

After Alfred Marshall, Lionel Robbins formulated his own conception of economics in his book “The Nature and Significance of Economic Science” in 1932. According to him, “Economics is the science which studies human behavior as a relationship between ends and scarce means which have alternative uses”. He gave importance to four fundamental characters of human existence such as;

1. Unlimited wants- In his definition “ends” refers to human wants which are boundless or unlimited.
2. Scarcity of means (Limited Resources) – the resources (time and money) at the disposal of a person to satisfy his wants are limited.
3. Alternate uses of Scarce means- Economic resources not only scarce but have alternate uses also. So one has to make choice of uses.
4. The Economic Problem –when wants are unlimited, means are scarce and have alternate uses, the economic problem arises. Hence we need to arrange wants in the order of urgency.

The merits of scarcity definition are; this definition is analytical, universal in application, a positive study and considering the concept of opportunity cost. But this also criticized on the grounds that; it is too narrow and too wide, it offers only light but not fruit, confined to micro analysis and ignores Growth economics etc..

D. Modern Definition

The credit for revolutionizing the study of economics surely goes to Lord J.M Keynes. He defined economics as the “study of the administration of scarce resources and the determinants of income and employment”.

Prof. Samuelson recently given a definition based on growth aspects which is known as Growth definition. “Economics is the study of how people and society end up choosing, with or without the use of money to employ scarce productive resources that could have alternative uses to produce various commodities and distribute them for consumption, now or in the future, among various persons or groups in society. Economics analyses the costs and the benefits of improving patterns of resources use”. Main features of growth definition are; it is applicable even in barter economy, the inclusion of time element makes the scope of economics dynamic and it is an improvement in scarcity definition.

Meaning and Definition of Managerial Economics.

Managerial Economics as a subject gained popularity in U.S.A after the publication of the book “Managerial Economics” by Joel Dean in 1951. Joel Dean observed that managerial Economics shows how economic analysis can be used in formulating policies.

Managerial economics bridges the gap between traditional economic theory and real business practices in two ways. Firstly, it provides number of tools and techniques to enable the manager to become more competent to take decisions in real and practical situation. Secondly, it serves as an integrating course to show the interaction between various areas in which the firm operates.

According to Prof. Evan J Douglas, Managerial economics is concerned with the application of business principles and methodologies to the decision making process within the firm or organization under the conditions of uncertainty. It seeks to establish rules and principles to facilitate the attainment of the desired economic aim of management. These economic aims relate to costs, revenue and profits and are important within both business and non business institutions.

Spencer and Siegleman defined managerial Economics as “the integration of economic theory with business practice for the purpose of facilitating decision making and forward planning of management” managerial economics helps the managers to analyze the problems faced by the business unit and to take vital decisions. They have to choose from among a number of possible alternatives. They have to choose that course of action by which the available resources are most efficiently used. Cristopor I Savage and John R Small opinioned that “managerial economics is some thing that concerned with business efficiency”.

In the words of Michael Baye, ”Managerial Economics is the study of how to direct scares resources in a way that mostly effectively achieves a managerial goal”.

Objectives and Uses (importance) of managerial Economics

Objectives: The basic objective of managerial economics is to analyze the economic problems faced by the business. The other objectives are:

1. To integrate economic theory with business practice.
2. To apply economic concepts and principles to solve business problems.
3. To allocate the scares resources in the optimal manner.
4. To make all-round development of a firm.
5. To minimize risk and uncertainty
6. To helps in demand and sales forecasting.
7. To help in profit maximization.
8. To help to achieve the other objectives of the firm like industry leadership, expansion implementation of policies etc...

Importance: In order to solve the problems of decision making, data are to be collected and analyzed in the light of business objectives. Managerial economics provides help in this area. The importance of managerial economics maybe relies in the following points:

1. It provides tool and techniques for managerial decision making.
2. It gives answers to the basic problems of business management.
3. It supplies data for analysis and forecasting.
4. It provides tools for demand forecasting and profit planning.
5. It guides the managerial economist.
6. It helps in formulating business policies.
7. It assists the management to know internal and external factors influence the business.

Following are the important areas of decision making;

- a) Selection of product.
- b) Selection of suitable product mix.
- c) Selection of method of production.
- d) Product line decision.
- e) Determination of price and quantity.
- f) Decision on promotional strategy.
- g) Optimum input combination.
- h) Allocation of resources.
- i) Replacement decision.
- j) Make or buy decision.
- k) Shut down decision.
- l) Decision on export and import.
- m) Location decision.
- n) Capital budgeting.

Scope of Managerial / Business Economics

The scope of managerial economics refers to its area of study. Scope of Managerial Economics is wider than the scope of Business Economics in the sense that while managerial economics dealing the decisional problems of both business and non business organizations, business economics deals only the problems of business organizations. Business economics giving solution to the problems of a business unit or profit oriented unit. Managerial economics giving solution to the problems of non profit organizations like schools, hospital etc., also. The scope covers two areas of decision making (A) operational or internal issues and (B) Environmental or external issues.

A) Operational/internal issues

These issues are those which arise within the business organization and are under the control of the management. They pertain to simple questions of what to produce, when to produce, how much to produce and for which category of consumers. The following aspects may be said to fall under internal issues.

1. **Demand analysis and Forecasting:** - The demands for the firm's product would change in response to change in price, consumer's income, his taste etc. which are the determinants of demand. A study of the determinants of demand is necessary for forecasting future demand of the product.
2. **Cost analysis:** - Estimation of cost is an essential part of managerial problems. The factors causing variation of cost must be found out and allowed for it management to arrive at cost estimates. This will help for more effective planning and sound pricing practices.
3. **Pricing Decisions:** - The firm aims to profit which depends upon the correctness of pricing decisions. The pricing is an important area of managerial economics. Theories regarding price fixation help the firm to solve the price fixation problems.
4. **Profit Analysis:** - Business firms working for profit and it is an important measure of success. But firms working under conditions of uncertainty. Profit planning becomes necessary under the conditions of uncertainty.
5. **Capital budgeting:** - The business managers have to take very important decisions relating to the firm's capital investment. The manager has to calculate correctly the profitability of investment and to properly allocate the capital. Success of the firm depends upon the proper analysis of capital project and selecting the best one.
6. **Production and supply analysis:** - Production analysis is narrower in scope than cost analysis. Production analysis proceeds in physical terms while cost analysis proceeds in monetary terms. Important aspects of supply analysis are; supply schedule, curves and functions, law of supply, elasticity of supply and factors influencing supply...

B) Environmental or external issues

It refers to the general business environment in which the firm operates. A study of economic environment should include:

1. The types of economic system in the country.
 2. The general trend in production, employment, income, prices, savings and investments
 3. Trends in the working of financial institutions like banks, financial corporations, insurance companies etc..
 4. Magnitude and trends in foreign trade.
 5. Trends in labour and capital market.
 6. Government economic policies viz., industrial policy, monetary policies, fiscal policy, price policy etc...
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Functions and Responsibilities of managerial economist

A managerial economist can play an important role by assisting the management to solve the difficult problems of decision making and forward planning. Managerial economists have to study external and internal factors influencing the business while taking the decisions. The important questions to be answered by the managerial economists include:

1. Is competition likely to increase or decrease?
2. What are the population shifts and their influence in purchasing power?
3. Will the price of raw materials increase or decrease? Etc...
4. .managerial economist can also help the management in taking decisions regarding internal operation of the firm. Following are the important specific functions of managerial economist;

1. Sales forecasting.
2. Market research.
3. Production scheduling
4. Economic analysis of competing industry.
5. Investment appraisal.
6. Security management analysis.
7. Advise on foreign exchange management.
8. Advice on trade.
9. Environmental forecasting.
10. Economic analysis of agriculture Sales forecasting

The **responsibilities** of managerial economists are the following;

1. To bring reasonable profit to the company.
2. To make accurate forecast.
3. To establish and maintain contact with individual and data sources.
4. To keep the management informed of all the possible economic trends.
5. To prepare speeches for business executives.
6. To participate in public debates
7. To earn full status in the business team.

Chief Characteristics of Managerial or Business economics.

Following are the important feature of managerial economics

- 1) Managerial economics is **Micro economic** in character. Because it studies the problems of a business firm, not the entire economy.
- 2) Managerial economics largely uses the body of economic concepts and principles which is known as **“Theory of the Firm” or “Economics of the firm”**.
- 3) Managerial economics is **pragmatic**. It is purely practical oriented. So Managerial economics considers the particular environment of a firm or business for decision making.
- 4) Managerial economics is **Normative** rather than positive economics (descriptive economics). Managerial economics is **prescriptive** to solve particular business problem by giving importance to firms aim and objectives.
- 5) **Macro economics is also useful** to managerial economics since it provides intelligent understanding of the environment in which the business is operating.
- 6) **It is management oriented.**

Managerial economics as a tool for decision making and forward planning.

Decision making: Decision making is an integral part of modern management. Perhaps the most important function of the business manager is decision making. Decision making is the process of selecting one action from two or more alternative course of actions. Resources such as land, labour and capital are limited and can be employed in alternative uses, so the question of choice is arises.

Managers of business organizations are constantly faced with wide variety of decisions in the areas of pricing, product selection, cost control, asset management and plant expansion. Manager has to choose best among the alternatives by which available resources are most efficiently used for achieving the desired aims. Decision making process involves the following elements;

1. The identification of the firm's objectives.
2. The statement of the problem to be solved.
3. The listing of various alternatives.
4. Evaluation and analysis of alternatives.
5. The selection best alternative
6. The implementation and monitoring of the alternative which is chosen.

Following are the important areas of decision making;

- a) Selection of product.
- b) Selection of suitable product mix.
- c) Selection of method of production.
- d) Product line decision.
- e) Determination of price and quantity.
- f) Decision on promotional strategy.
- g) Optimum input combination.
- h) Allocation of resources.
- i) Replacement decision.
- j) Make or buy decision.
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- m) Location decision.
- n) Capital budgeting.

Forward Planning: -Future is uncertain. A firm is operating under the conditions of risk and uncertainty. Risk and uncertainty can be minimized only by making accurate forecast and forward planning. Managerial economics helps manager in forward planning Forward planning means making plans for the future. A manager has to make plan for the future e.g. Expansion of existing plants etc...The study of macro economics provides managers a clear understanding about environment in which the business firm is working. The knowledge of various economic theories viz, demands theory, supply theory etc. also can be helpful for future planning of demand and supply. So managerial economics enables the manager to make plan for the future.

Economics Vs Managerial economics.

Economics	Managerial Economics
1. Dealing both micro and macro aspects 2. Both positive and normative science. 3. Deals with theoretical aspects 4. Study both the firm and individual. 5. Wide scope	1. Dealing only micro aspects 2. Only a normative science. 3. Deals with practical aspects. 4. Study the problems of firm only. 5. Narrow scope.

DEMAND CONCEPTS

Meaning of Demand

Demand is a common parlance means desire for an object. But in economics demand is something more than this. In economics „Demand“ means the quantity of goods and services which a person can purchase with a requisite amount of money.

According to Prof.Hidbon, “Demand means the various quantities of goods that would be purchased per time period at different prices in a given market. Thus demand for a commodity is its quantity which consumer is able and willing to buy at various prices during a given period of time. Simply, demand is the behavior of potential buyers in a market.

In the opinion of Stonier and Hague, “Demand in economics means demand backed up by enough money to pay for the goods demanded”. In other words, demand means the desire backed by the willingness to buy a commodity and purchasing power to pay. Hence desire alone is not enough. There must have necessary purchasing power, ie, .cash to purchase it. For example, everyone desires to possess Benz car but only few have the ability to buy it. So everybody cannot be said to have a demand for the car. Thus the demand has three essentials-Desire, Purchasing power and Willingness to purchase.

Demand Analysis

Demand analysis means an attempt to determine the factors affecting the demand of a commodity or service and to measure such factors and their influences. The demand analysis includes the study of law of demand, demand schedule, demand curve and demand forecasting. Main objectives of demand analysis are;

- 1) To determine the factors affecting the demand.
- 2) To measure the elasticity of demand.
- 3) To forecast the demand.
- 4) To increase the demand.
- 5) To allocate the resources efficiently

Law of Demand

The law of Demand is known as the „first law in market”. Law of demand shows the relation between price and quantity demanded of a commodity in the market. In the words of Marshall “the amount demanded increases with a fall in price and diminishes with a rise in price”.

According to Samuelson, “Law of Demand states that people will buy more at lower price and buy less at higher prices”. In other words while other things remaining the same an increase in the price of a commodity will decrease the quantity demanded of that commodity and decrease in the price will increase the demand of that commodity. So the relationship described by the law of demand is an inverse or negative relationship because the variables (price and demand) move in opposite direction. It shows the cause and effect relationship between price and quantity demand.

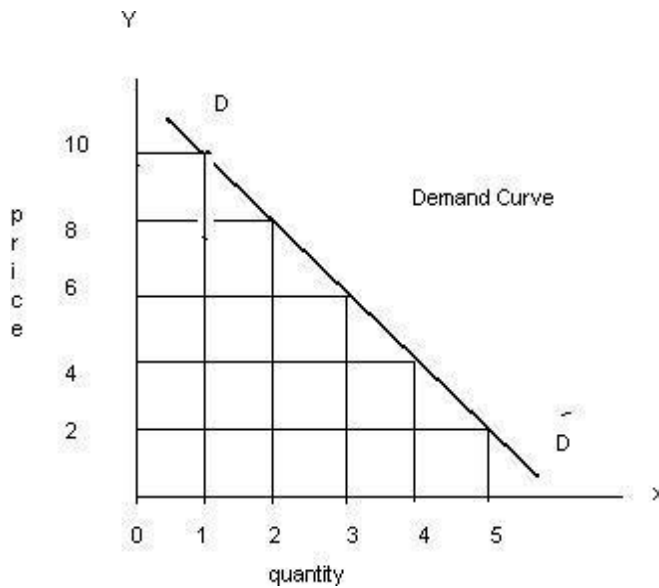
The concept of law of demand may be explained with the help of a demand schedules.

Individual demand Schedule

An individual demand schedule is a list of quantities of a commodity purchased by an individual consumer at different prices. The following table shows the demand schedule of an individual consumer for apple.

Price of Apple (In Rs.)	Quantity demanded
10	1
8	2
6	3
4	4
2	5

When the price falls from Rs 10 to 8, the quantity demanded increases from one to two. In the same way as price falls, quantity demanded increases. On the basis of the above demand schedule we can draw the demand curve as follows;



The demand curve DD shows the inverse relation between price and demand of apple. Due to this inverse relationship, demand curve is slopes downward from left to right. This kind of slope is also called “negative slope”

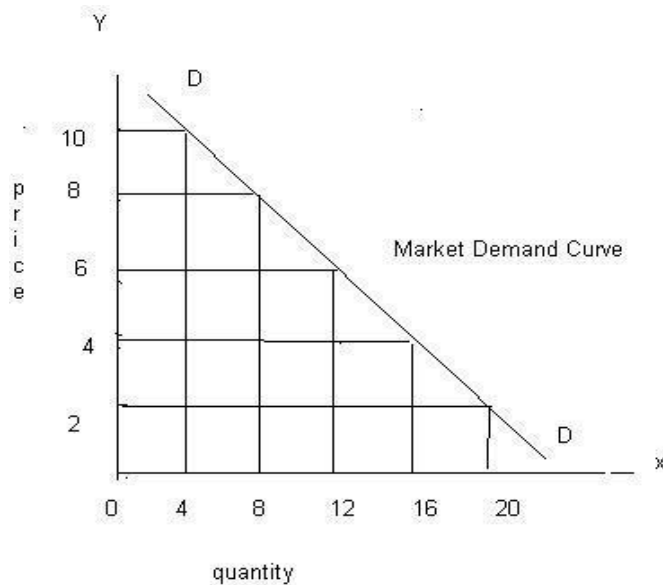
Market demand schedule

Market demand refers to the total demand for a commodity by all the consumers. It is the aggregate quantity demanded for a commodity by all the consumers in a market. It can be expressed in the following schedule.

Market Demand Schedule for egg.

Price per dozen(Rs)	Demand by consumers				Market Demand
	A	B	C	D	
10	1	2	0	0	3
8	2	3	1	0	6
6	3	4	2	1	10
4	4	5	3	2	14
2	5	6	4	3	18

Derivation of market demand curve is a simple process. For example, let us assume that there are four consumers in a market demanding eggs. When the price of one dozen eggs is Rs.10, A buys one dozen and B buys 2 dozens. When price falls to Rs.8, A buys 2 , B buys 3 and C buys one dozen. When price falls to Rs.6, A buys 3 b buys 4,C buys 2 and D buys one dozen and so on. By adding up the quantity demanded by all the four consumers at various prices we get the market demand curve. So last column of the above demand schedule gives the total demand for eggs at different prices,ie, "Market Demand" as given below;



Assumptions of Law of Demand

Law of demand is based on certain basic assumptions. They are as follows

- 1) There is no change in consumers' taste and preference
- 2) Income should remain constant.
- 3) Prices of other goods should not change.
- 4) There should be no substitute for the commodity.
- 5) The commodity should not confer any distinction.
- 6) The demand for the commodity should be continuous.
- 7) People should not expect any change in the price of the commodity.

Why does demand curve slopes downward?

Demand curve slopes downward from left to right (Negative Slope). There are many causes for downward sloping of demand curve:-

1) Law of Diminishing Marginal utility

As the consumer buys more and more of the commodity, the marginal utility of the additional units falls. Therefore the consumer is willing to pay only lower prices for additional units. If the price is higher, he will restrict its consumption

2) Principle of Equi- Marginal Utility

Consumer will arrange his purchases in such a way that the marginal utility is equal in all his purchases. If it is not equal, they will alter their purchases till the marginal utility is equal.

3) Income effect.

When the price of the commodity falls, the real income of the consumer will increase. He will spend this increased income either to buy additional quantity of the same commodity or other commodity.

4) Substitution effect.

When the price of tea falls, it becomes cheaper. Therefore the consumer will substitute this commodity for coffee. This leads to an increase in demand for tea.

5) Different uses of a commodity.

Some commodities have several uses. If the price of the commodity is high, its use will be restricted only for important purpose. For e.g. when the price of tomato is high, it will be used only for cooking purpose. When it is cheaper, it will be used for preparing jam, pickle etc...

6) Psychology of people.

Psychologically people buy more of a commodity when its price falls. In other word it can be termed as **price effect**.

7) Tendency of human beings to satisfy unsatisfied wants.

Exceptions to the Law of Demand. (Exceptional Demand Curve).

The basic feature of demand curve is negative sloping. But there are some exceptions to this. I.e... In certain circumstances demand curve may slope upward from left to right (positive slopes). These phenomena may due to;

1) Giffen paradox

The Giffen goods are inferior goods is an exception to the law of demand. When the price of inferior good falls, the poor will buy less and vice versa. When the price of maize falls, the poor will not buy it more but they are willing to spend more on superior goods than on maize. Thus fall in price will result into reduction in quantity. This paradox is first explained by Sir Robert Giffen.

2) Veblen or Demonstration effect.

According to Veblen, rich people buy certain goods because of its social distinction or prestige. Diamonds and other luxurious article are purchased by rich people due to its high prestige value. Hence higher the price of these articles, higher will be the demand.

3) Ignorance.

Some times consumers think that the product is superior or quality is high if the price of that product is high. As such they buy more at high price.

4) Speculative Effect.

When the price of commodity is increasing, then the consumer buy more of it because of the fear that it will increase still further.

5) Fear of Shortage.

During the time of emergency or war, people may expect shortage of commodity and buy more at higher price to keep stock for future.

6) Necessaries

In the case of necessaries like rice, vegetables etc., People buy more even at a higher price.

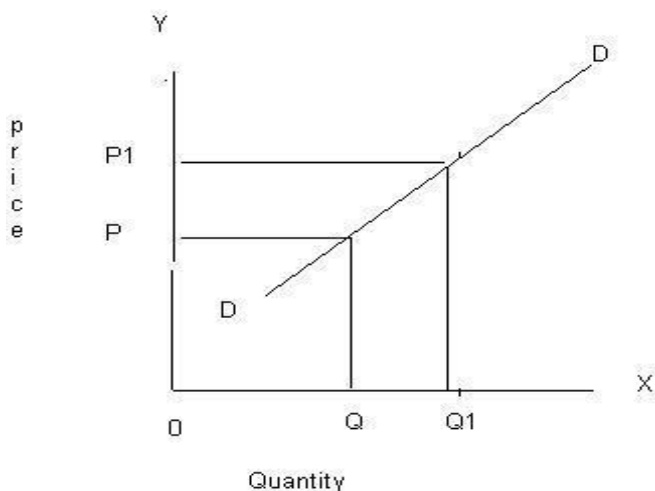
7) Brand Loyalty

When consumer is brand loyal to particular product or psychological attachment to particular product, they will continue to buy such products even at a higher price.

8) Festival, Marriage etc.

In certain occasions like festivals, marriage etc. people will buy more even at high price.

Exceptional Demand Curve (perverse demand curve)



When price raises from OP to OP1 quantity demanded also increases from OQ to OQ1. In other words, from the above, we can see that there is positive relation between price and demand. Hence, demand curve (DD) slopes upward.

CHANGES IN DEMAND

Demand of a commodity may change. It may increase or decrease due to changes in certain factors. These factors are called **determinants of demand**. These factors include;

- 1) Price of a commodity
 - 2) Nature of commodity
 - 3) Income and wealth of consumer
 - 4) Taste and preferences of consumer
 - 5) Price of related goods (substitutes and compliment goods)
 - 6) Consumers' expectations.
 - 7) Advertisement etc...
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Demand Function.

There is a functional relationship between demand and its various determinants. I.e., a change in any determinant will affect the demand. When this relationship expressed mathematically, it is called Demand Function. Demand function of a commodity can be written as follows:

$$D = f(P, Y, T, P_s, U)$$

Where, **D**= Quantity demanded

Y= Income of the consumer

P_s = Price of substitutes

f = Function of (indicates how variables are related)

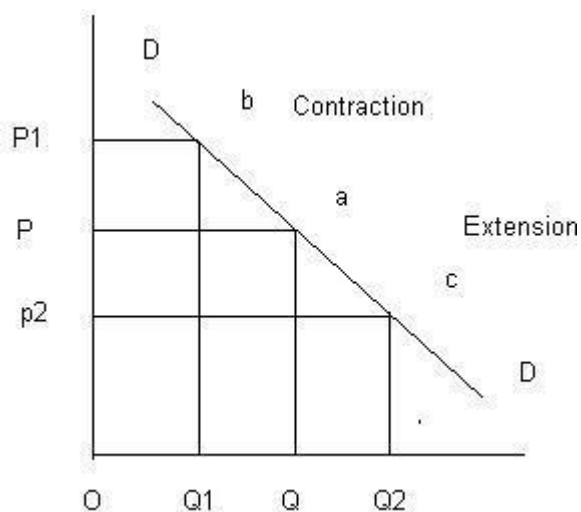
P= Price of the commodity

T= Taste and preference of consumers.

U= Consumers expectations & others

Extension and Contraction of Demand.

Demand may change due to various factors. The change in demand due to change in price only, where other factors remaining constant, it is called extension and contraction of demand. A change in demand solely due to change in price is called extension and contraction. When the quantity demanded of a commodity rises due to a fall in price, it is called extension of demand. On the other hand, when the quantity demanded falls due to a rise in price, it is called contraction of demand. It can be understand from the following diagram.

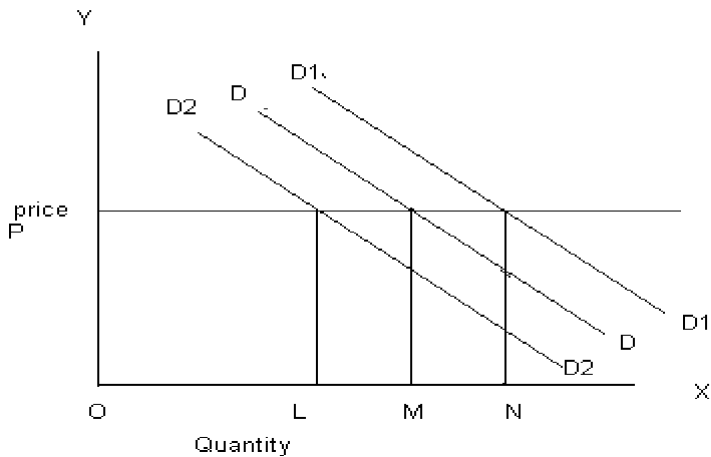


When the price of commodity is OP, quantity demanded is OQ. If the price falls to P2, quantity demanded increases to OQ2. When price rises to P1, demand decreases from OQ to OQ1. In demand curve, the area **a** to **c** is extension of demand and the area **a** to **b** is contraction of demand. As result of change in price of a commodity, the consumer moves along the same demand curve.

Shift in Demand (Increase or Decrease in demand)

When the demand changes due to changes in other factors, like taste and preferences, income, price of related goods etc... , it is called shift in demand. Due to changes in other factors, if the consumers buy more goods, it is called increase in demand or upward shift. On the other hand, if the consumers buy fewer goods due to change in other factors, it is called downward shift or decrease in demand.

Shift in demand cannot be shown in same demand curve. The increase and decrease in demand (upward shift and downward shift) can be expressed by the following diagram.



DD is the original demand curve. Demand curve shift upward due to change in income, taste & preferences etc of consumer, where price remaining the same. In the above diagram demand curve D1-D1 is showing upward shift or increase in demand and D2-D2 shows downward shift or decrease in demand.

Comparison between extension/contraction and shift in demand

SL. No	Extension/Contraction of Demand	Shift in Demand
1	Demand is varying due to changes in price	Demand is varying due to changes in other factors
2	Other factors like taste, preferences, income etc... remaining the same.	Price of commodity remain the same
3	Consumer moves along the same demand curve	Consumer may moves to higher or lower demand curve

Different types of demand.

Joint demand:

When two or more commodities are jointly demanded at the same time to satisfy a particular want, it is called joint or complimentary demand.(demand for milk, sugar, tea for making tea).

Composite demand:

The demand for a commodity which can be put for several uses (demand for electricity)

Direct and Derived demand:

Demand for a commodity which is for a direct consumption is called direct demand.(food, cloth). When the commodity is demanded as s result of the demand of another commodity, it is called derived demand.(demand for tyres depends on demand of vehicles).

Industry demand and company demand:

Demand for the product of particular company is company demand and total demand for the products of particular industry which includes number of companies is called industry demand

ELASTICITY OF DEMAND

Meaning of Elasticity

Law of demand explains the directions of changes in demand. A fall in price leads to an increase in quantity demanded and vice versa. But it does not tell us the rate at which demand changes to change in price. The concept of elasticity of demand was introduced by Marshall. This concept explains the relationship between a change in price and consequent change in quantity demanded. Nutshell, it shows the rate at which changes in demand take place.

Elasticity of demand can be defined as “the degree of responsiveness in quantity demanded to a change in price”. Thus it represents the rate of change in quantity demanded due to a change in price. There are mainly three types of elasticity of demand:

1. Price Elasticity of Demand.
2. Income Elasticity of Demand. and
3. Cross Elasticity of Demand.

Price Elasticity of Demand

Price Elasticity of demand measures the change in quantity demanded to a change in price. It is the ratio of percentage change in quantity demanded to a percentage change in price. This can be measured by the following formula.

Price Elasticity = Proportionate change in quantity demanded

Proportionate change in price

OR

$E_p = \frac{\text{Change in Quantity demanded} / \text{Quantity demanded}}$

Change in Price/price

OR

$E_p = \frac{(Q_2 - Q_1) / Q_1}{(P_2 - P_1) / P_1}$,

Where: Q1 = Quantity demanded before price change

Q2 = Quantity demanded after price change

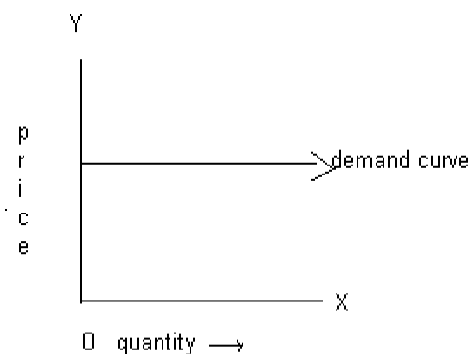
P1 = Price charged before price change

P2 = Price charge after price change.

There are five types of price elasticity of demand. (Degree of elasticity of demand) Such as perfectly elastic demand, perfectly inelastic demand, relatively elastic demand, relatively inelastic demand and unitary elastic demand.

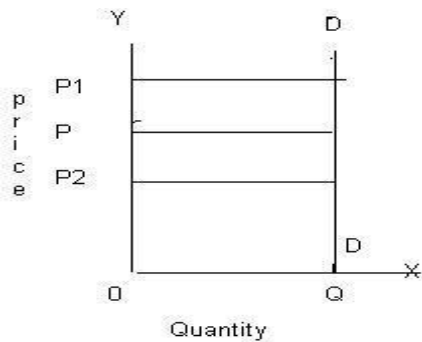
1) Perfectly elastic demand (infinitely elastic)

When a small change in price leads to infinite change in quantity demanded, it is called perfectly elastic demand. In this case the demand curve is a horizontal straight line as given below. (Here $e_p = \infty$)



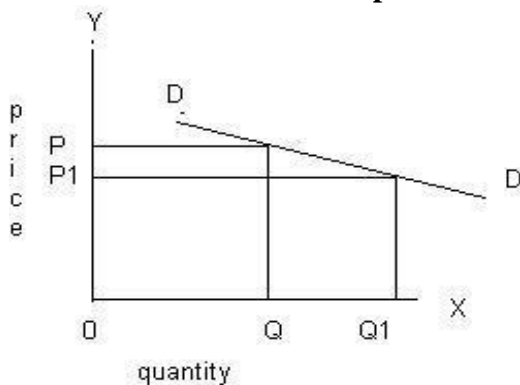
2) Perfectly inelastic demand

In this case, even a large change in price fails to bring about a change in quantity demanded. I.e. the change in price will not affect the quantity demanded and quantity remains the same whatever the change in price. Here demand curve will be vertical line as follows and $ep=0$



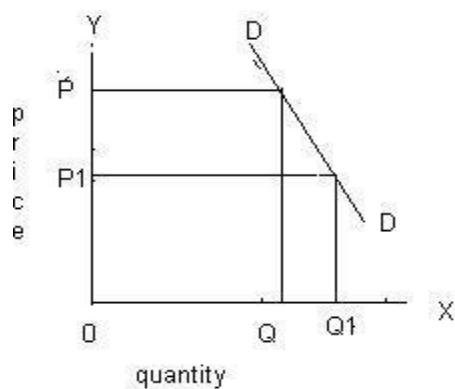
3) Relatively elastic demand

Here a small change in price leads to very big change in quantity demanded. In this case demand curve will be flatter one and $ep>1$



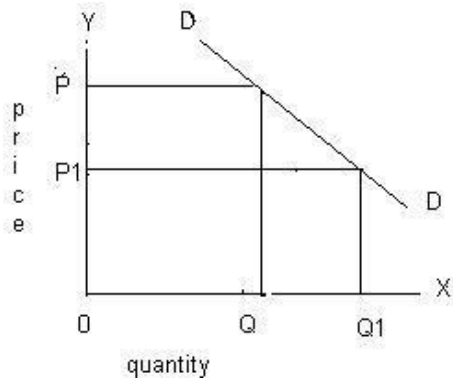
4) Relatively inelastic demand

Here quantity demanded changes less than proportionate to changes in price. A large change in price leads to small change in demand. In this case demand curve will be steeper and $ep<1$



5) Unit elasticity of demand (unitary elastic)

Here the change in demand is exactly equal to the change in price. When both are equal, $ep= 1$, the elasticity is said to be unitary.



The above five types of elasticity can be summarized as follows

SL No	type	Numerical expression	description	Shape of curve
1	Perfectly elastic	α	infinity	Horizontal
2	Perfectly inelastic	0	Zero	Vertical
3	Unitary elastic	1	One	Rectangular hyperbola
4	Relatively elastic	>1	More than one	Flat
5	Relatively inelastic	<1	Less than one	Steep

3.3 Income Elasticity

of Demand

Income elasticity of demand shows the change in quantity demanded as a result of a change in consumers' income. Income elasticity of demand may be stated in the form of formula:

$$E_y = \frac{\text{Proportionate Change in Quantity Demanded}}{\text{Proportionate Change in Income}}$$

Income elasticity of demand mainly of three types:

- 1) Zero income Elasticity.
- 2) Negative income Elasticity
- 3) Positive income Elasticity.

Zero income elasticity – In this case, quantity demanded remain the same, eventhogh money income increases.ie, changes in the income doesn't influence the quantity demanded (Eg.salt,sugar etc). Here E_y (income elasticity) = **0**

Negative income elasticity -In this case, when income increases, quantity demanded falls.Eg, inferior goods. Here $E_y = < 0$.

Positive Income Elasticity - In this case, an increase in income may lead to an increase in the quantity demanded. i.e., when income rises, demand also rises. ($E_y \Rightarrow 0$) This can be further classified into three types:

- a) Unit income elasticity; Demand changes in same proportion to change in income. i.e, $E_y = 1$
- b) Income elasticity greater than unity: An increase in income brings about a more than proportionate increase in quantity demanded. i.e, $E_y \Rightarrow 1$
- c) Income elasticity less than unity: when income increases quantity demanded is also increases but less than proportionately. I.e., $E_y = <1$

Business decision based on income elasticity.

The concept of income elasticity can be utilized for the purpose of taking vital business decision. A businessman can rely on the following facts.

If income elasticity is greater than Zero, but less than one, sales of the product will increase but slower than the general economic growth

If income elasticity is greater than one, sales of his product will increase more rapidly than the general economic growth.

Firms whose demand functions have high income elasticity have good growth opportunities in an expanding economy. This concept helps manager to take correct decision during business cycle and also helps in forecasting the effect of changes in income on demand.

Cross Elasticity of Demand

Cross elasticity of demand is the proportionate change in the quantity demanded of a commodity in response to change in the price of another related commodity. Related commodity may either substitutes or complements. Examples of substitute commodities are **tea and coffee**. Examples of compliment commodities are **car and petrol**. Cross elasticity of demand can be calculated by the following formula;

$$\text{Cross Elasticity} = \frac{\text{Proportionate Change in Quantity Demanded of a Commodity}}{\text{Proportionate Change in the Price of Related Commodity}}$$

If the cross elasticity is positive, the commodities are said to be substitutes and if cross elasticity is negative, the commodities are compliments. The substitute goods (tea and Coffee) have positive cross elasticity because the increase in the price of tea may increase the demand of the coffee and the consumer may shift from the consumption of tea to coffee.

Complementary goods (car and petrol) have negative cross elasticity because increase in the price of car will reduce the quantity demanded of petrol.

The concept of cross elasticity assists the manager in the process of decision making. For fixing the price of product which having close substitutes or compliments, cross elasticity is very useful.

Advertisement Elasticity of Demand

Advertisement elasticity of demand (Promotional elasticity of demand) measure the responsiveness of demand due to a change in advertisement and other promotional expenses. This can be measured by the following formula;

$$\text{Advertisement Elasticity} = \frac{\text{Proportionate Increase in Sales}}{\text{Proportionate increase in Advertisement expenditure.}}$$

There are various determinants of advertisement elasticity, they are;

1. Type of commodity- elasticity will be higher for luxury, new product, growing product etc.,
2. Market share – larger the market share of the firm lower will be promotional elasticity.
3. Rival's reaction – if the rivals react to increase in firm's advertisement by increasing their own advertisement expenditure, it will reduce the advertisement elasticity of the firm.
4. State of economy – if economic conditions are good, the consumers are more likely to respond to the advertisement of the firm.

Advertisement elasticity helps in the process of decision making. It helps to deciding the optimum level of advertisement and promotional cost. If the advertisement elasticity is high, it is profitable to spend more on advertisement. Hence, advertisement elasticity helps to decide optimum advertisement and promotional outlay.

Importance of Elasticity.

The concept of elasticity of demand is much of practical importance;

1. **Production-** Producers generally decide their production level on the basis of demand for their product. Hence elasticity of demand helps to fix the level of output.
2. **Price fixation-** Each seller under monopoly and imperfect competition has to take into account the elasticity of demand while fixing their price. If the demand for the product is inelastic, he can fix a higher price.
3. **Distribution-** Elasticity helps in the determination of rewards for factors of production. For example, if the demand for labour is inelastic, trade union can raise wages.
4. **International trade-** This concept helps in finding out the terms of trade between two countries. Terms of trade means rate at which domestic commodities is exchanged for foreign commodities.
5. **Public finance-** This assists the government in formulating tax policies. In order to impose tax on a commodity, the government should take into consideration the demand elasticity.
6. **Nationalization-** Elasticity of demand helps the government to decide about nationalization of industries.
7. **Price discrimination-** A manufacture can fix a higher price for the product which have inelastic demand and lower price for product which have elastic demand.
8. **Others-** The concept elasticity of demand also helping in taking other vital decision Eg.Determining the price of joint product, take over decision etc..

Determinants of elasticity.

Elasticity of demand varies from product to product, time to time and market to market. This is due to influence of various factors. They are;

1. **Nature of commodity**- Demand for necessary goods (salt, rice,etc,) is inelastic. Demand for comfort and luxury good are elastic.
2. **Availability/range of substitutes** – A commodity against which lot of substitutes are available, the demand for that is elastic. But the goods which have no substitutes, demand is inelastic.
3. **Extent /variety of uses**- a commodity having a variety of uses has a comparatively elastic demand.Eg.Demand for steel, electricity etc..
4. **Postponement/urgency of demand**- if the consumption of a commodity can be post pond, then it will have elastic demand. Urgent commodity has inelastic demand.
5. **Income level**- income level also influences the elasticity. E.g. Rich man will not curtail the consumption quantity of fruit, milk etc, even if their price rises, but a poor man will not follow it.
6. **Amount of money spend on the commodity**- where an individual spends only a small portion of his income on the commodity, the price change doesn't materially affect the demand for the commodity, and the demand is inelastic... (match box, salt Etc)
7. **Durability of commodity**- if the commodity is durable or repairable at a substantially less amount (eg.Shoes), the demand for that is elastic.
8. **Purchase frequency of a product/time** –if the frequency of purchase of a product is very high, the demand is likely to be more price elastic.
9. **Range of Prices**- if the products at very high price or at very low price having inelastic demand since a slight change in price will not affect the quantity demand.
10. **Others** – the habit of consumers, demand for complimentary goods, distribution of income and wealth in the society etc., are other important factors affecting elasticity.

Measurement of Elasticity

There are various methods for the measurement of elasticity of demand. Following are the important methods:

1. **Proportional or Percentage Method**: Under this method the elasticity of demand is measured by the ratio between the proportionate or percentage change in quantity demanded and proportionate change in price. It is also known as formula method. It can be computed as follows:

$$\begin{aligned} \text{ED} &= \frac{\text{Proportionate change in quantity demanded}}{\text{Proportionate change in price.}} \\ &\text{OR} \\ &= \frac{\text{Change in Demand Original}}{\text{Quantity demanded}} \\ &\quad \frac{\text{Change in Price}}{\text{Original price}} \end{aligned}$$

UNIT II

PRODUCTION

Introduction

In Economics the term production means process by which a commodity(or commodities) is transformed in to a different usable commodity. In other words, production means transforming inputs(labour ,machines ,raw materials etc.) into an output. This kind of production is called manufacturing. The production process however does not necessarily involve physical conversion of raw materials in to tangible goods . it also includes the conversion of intangible inputs to intangible outputs . For example , production of legal, medical ,social and consultancy services- where lawyers, doctors, social workers consultants are all engaged in producing intangible goods.

An „input is good or service that goes in to the process of production and “out put is any good or service that comes out of production process.

Fixed and variable inputs.

In economic sense, a fixed input is one whose supply is inelastic in the short run .Therefore, all of its users cannot buy more of it in short run. Conceptually, all its users, cannot employ more of it in the short run. If one user buys more of it, some other users will get less of it. A variable input is defined as one whose supply in the short run is elastic, eg:Labour, raw materials etc. All the users of such factors can employ larger quantity in the short run.

In technical sense ,a fixed input remains fixed (constant) up to a certain level of output whereas a variable input changes with change in output . A firm has two types of production function:-

(1) Short run production function

(2) Long run production function

Production function

Production function shows the technological relationship between quantity of out put and the quantity of various inputs used in production. Production function in economic sense states the maximum output that can be produced during a period with a certain quantity of various inputs in the existing state of technology. In other words, It is the tool of analysis which is used to explain the input - output relationships. In general, it tells that production of a commodity depends on the specified inputs. in its specific form it presents the quantitative relationship between inputs and output . inputs are classified as:-

- 1 . Fixed input or fixed factors.
2. Variable input or variable factors.

Short run and Long run

Short run refers to a period of time in which the supply of certain inputs (E.g. :- plant, building ,machines, etc) are fixed or inelastic. Thus an increase in production during this period is possible only by increasing the variable input . In some Industries, short run may be a matter of few weeks or a few months and in some others it may extend even up to three or more years.

The long run refers to a period of time in which “ supply of all the input is elastic ; but not enough to permit a change in technology. In the long run, the availability of even fixed factor increases. Thus in the long run, production of commodity can be increased by employing more of both ,variable and fixed inputs.

In the strict sense ,production function is defined as the transformation of physical input in to physical out put where out put is a function of input .It can be expressed algebraically as;

$$Q=f(K,L \text{ etc}). \text{Where}$$

Q- Is the quantity of out put produced during a particular period

K, L etc are the factors of production

f -denotes the function of or depends on.

The production functions are based on certain assumptions;

1. Perfect divisibility of both inputs and out put;
2. Limited substitution of one factor for the others
3. Constant technology; and
4. Inelastic supply of fixed factors in the short run

Cobb-Douglas Production Function.

One of the important tool of statistical analysis in production function that measures the relation between change in physical input is cob-Douglas production function . The concept was originated in USA. This is more peculiar to manufacturing concerns. The cob-Douglas formula says that labour contributes about 75% increases in manufacturing production while capital contributes only 25%.The formula is as follows:-

$$O=KL^a C^{(1-a)}$$

Where O is output. L is the quantity of labour „C“ is the quantity of capital employed K and a(a<1)are positive constants. a and 1-a measure percentage response of output to percentage change in labour and capital respectively.

The production function shows at One (1%)percentage change in labour, capital remaining constant, is associated with 0.75% change in output . Similarly One percentage change in capital, labour remaining constant, is associated with a 20%change in output. Returns to scale are constant. That is if factors of production are increased, each by 10 percentage then the output also increases by 10 percentage

The laws of production

Production function shows the relationship between a given quantity of input and its maximum possible out put. Given the production function, the relationship between additional quantities of input and the additional output can be easily obtained. This kind of relationship yields the law of production The traditional theory of production studies the marginal input-output relationship under (I) Short run; and (II) long run. In the short run, input-output relations are studied with one variable input, while other inputs are held constant .The Law of production under these assumptions are called “ the Laws of variable production”. In the long run input output relations are studied assuming all the input to be variable. The long-run input output relations are studied under `Laws of Returns to Scale.

Law of Diminishing Returns (Law of Variable Proportions)

The Laws of returns states the relationship between the variable input and the output in the short term. By definition certain factors of production (e.g.-Land, plant, machinery etc) are available in short supply during the short run . Such factors which are available in unlimited supply even during the short periods are known as variable factor. In short-run there fore ,the firms can employ a limited or fixed quantity of fixed factors and an unlimited quantity of the variable factor . In other words, firms can employ in the short run varying quantities of variable inputs against given quantity of fixed factors. This kind of change in input combination leads to variation in factor proportions. The Law which brings out the relationship between varying factor properties and output are there fore known as the Law of variable proportions..

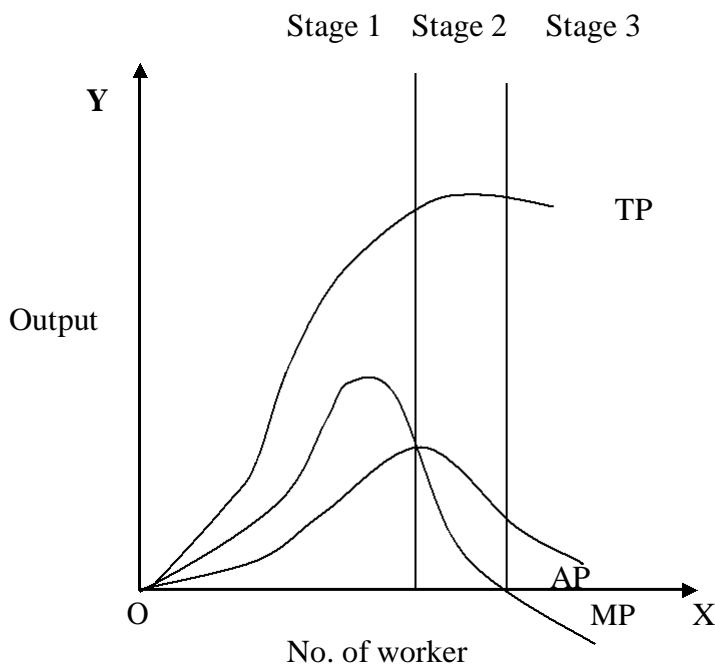
The variation in inputs lead to a disproportionate increase in output more and more units of variable factor when applied cause an increase in output but after a point the extra output will grow less and less. The law which brings out this tendency in production is known as“ Law of Diminishing Returns`

The Law of Diminishing returns levels that any attempt to increase output by increasing only one factor finally faces diminishing returns. The Law states that when some factor remain constant ,more and more units of a variable factor are introduced the production may increase initially at an increasing rate; but after a point it increases only at diminishing rate. Land and capital remain fixed in the short-term whereas labour shows a variable nature.

The following table explains the operation of the Law of Diminishing Returns.

No. of Workers	Total product	Average product	Marginal product
1	10	10	10
2	22	11	12
3	36	12	14
4	52	13	16
5	66	13.2	14
6	76	12.7	10
7	82	11.7	6
8	85	10.5	3
9	85	9.5	0
10	83	8.3	(-2)

The above table illustrates several important features of a typical production function. With one variable input, here both Average Product (AP) and Marginal Product (MP) first rise, reach a maximum, then decline. Average product is the product for one unit of labour. It is arrived at by dividing the Total Product (TP) by number of workers. Marginal product is the additional product resulting from additional labour. It is found out by dividing the change in total product by the change in the number of workers. The total output increases at an increasing rate till the employment of the 4th worker. The rate of increase in the marginal product reveals this. Any additional labour employed beyond the 4th labour clearly faces the operation of the Law of Diminishing Returns. The maximum marginal product is 16 after which it continues to fall, ultimately becoming negative. Thus when more and more units of labour are combined with other fixed factors the total output increase first at an increasing rate then at a diminishing rate finally it becomes negative. The graphical representation of the above table is shown below.



Assumptions of Law Diminishing Returns

The Law of Diminishing Returns is based on the following assumptions;-
Returns is based on the following assumptions;-

1. The production technology remains unchanged
2. The variable factor is homogeneous.
3. Any one factor is constant
4. The fixed factor remains constant.

Law of Returns to scale

In the long –run all the factor of production are variable ,and an increase in output is possible by increasing all the inputs. The Law of Returns to scale explains the technological relationship between changing scale of input and output. The law of returns of scale explain how a simultaneous and proportionate Increase in all the inputs affect the total output. The increase in output may be proportionate , more than proportionate or less than proportionate. If the increase in output is proportionate to the increase in input , it is constant Returns to scale .If It is less then proportionate it is diminishing returns to scale . The increasing returns to the scale comes first ,then constant and finally diminishing returns to scale happens.

Increasing Returns to scale

When proportionate increase in all factor of production results in a more than proportionate increase in output and this results first stage of production which is known as increasing returns to scale. Marginal output increases at this stage. Higher degree of specialization, falling cost etc will lead higher efficiency which result increased returns in the very first stage of production.

Constant Returns to scale

Firms cannot maintain increasing returns to scale indefinitely after the first stage , firm enters a stage when total output tends to increase at a rate which is equal to the rate of increase in inputs. This stage comes in to operation when the economies of large scale production are neutralized by the diseconomies of large scale operation.

Diminishing Returns to Scale

In this stage ,a proportionate increase in all the input result only less than proportionate increase in output . This is because of the diseconomies of large scale production. When the firm grows further, the problem of management arise which result inefficiency and it will affect the position of output.

UNIT III

MARKET STRUCTURES

Introduction

The determination of price of the product is an important managerial function. Price affects profit through its effect both on revenue and cost. profit is concerned With the difference between cost and the revenue .It always depends on cost and volume of sales. Therefore the management always tries to find out the optimum combination of price and output which offers the maximum profit to the firm. Thus pricing occupies an important place in economic analysis of firms.

The knowledge of market and market structure with which a firm operates is more helpful in price output decisions . Market in economic term means a meeting place where buyers and sellers deal directly or indirectly. Clark and Clark defines market as that “any body of persons who are in intimate business relations and carry on extensive transactions in any commodity” . Market structures are different market forms based on the degree of competition prevailing in the market. Broadly the market forms are classified into two types:-

1. Perfectly competitive market
2. Imperfectly competitive market

Perfect Competition

The term perfect competition is used in wider sense. perfect competition means all the buyers and sellers in the market are aware of price of products .The following are the characteristics of perfectly competitive market

1. Large number of buyers and sellers in the market
2. Homogeneous product
3. Free entry or exit
4. All the buyers and sellers in the market have perfect knowledge about the market conditions.
5. Perfect mobility of factor of production
6. Absence of transportation costs.

When the first three assumptions are satisfied there exists pure competition .competition becomes perfect only when all the assumptions are satisfied . In perfect competition ,the demand for the output for each producer is perfectly elastic .With the larger number of firms and homogeneous products, no individual firm is in a position to influence the price .

Monopoly

Monopoly means `single `selling . In brief, monopoly is a market situation in which there is only one seller or producer of a product for which no close substitution is available .As there is only one firm under monopoly ,that single firm constitutes the whole industry .The monopolist can fix price of his product and can pursue an independent price policy .A monopolist can take the decision about the price of his product .For ex:- electricity , water supply companies etc.

Features

The following are the important features of monopoly :-

1. One seller and a large number of buyers.
2. No close substitutes for the product .

3. Monopolist is not the price taker and the price maker.
4. Monopolist can control the supply.
5. No entry of new firm to the market .
6. Firm and industry are the same

Causes of Monopoly

1. Legal restrictions
2. Exclusive ownership or control over the raw materials.
3. Economies of large scale production
4. Exclusive knowledge of a production technique.

Difference between perfect competition and Monopoly

1. Under perfect competition there are many sellers but in the case of monopoly , there is only one seller
2. Individual seller has no control over the market supply in the case of perfect competition. But in the case of Monopoly individual seller controls the supply.
3. Products are identical in the case of perfect competition, but there is only one product in the case of Monopoly.
4. Under perfect competition, there are free entry and exit of firms .But the Monopolist blocks the entry .
5. The Monopolist discriminates the price but there is uniform price in perfect competition.
6. Firm and Industry is different in the case of perfect competition, they are same in the case of Monopoly.

Monopolistic Competition

In the present World market, it can be seen that there is no monopoly and there is no real competition. There is a mix up of the two. This situation is generally known as Monopolistic competition. According to Prof .E. H Chamberlin of America, Monopolistic Competition means a market situation In which competition is imperfect . The products of the firms under monopolist competition , are mainly close substitutes to each other .

Features /Assumptions of Monopolistic Competition.

The following are the important features of Monopolistic Competition.

1. There are large numbers of producers or sellers
2. It deals with differentiated products.
3. There are free entry and exit of firms to the markets.
4. The selling cost determines the demand for the products.
5. There is no association of firms
6. There is no price competition.
7. There is lack of knowledge of the market.

Difference between Perfect Competition and Monopolistic Competition

Perfect Competition	Monopolistic Competition
1)Products are identical .	1) Products are differentiated

- 2) It is not a real concept
- 3) Large Number of buyers and sellers .
- 4) Perfect knowledge of market Condition
- 5) Selling Cost do not play any role .
- 6) They are price takers
- 7) Demand curve is horizontal
- 8) AR, MR curves are parallel to x axis and price = demand = AR=MR

- 2) It is real concept .
- 3) Buyers and Sellers are not so large
- 4) Lack of perfect knowledge of market Condition
- 5) Selling cost has an important role.
- 6) They are price markers .
- 7) Demand curve is downward sloping
- 8) Price = demand =AR=But MR<AR.

Oligopoly

Oligopoly is a situation in which there are so few sellers that each of them is conscious of the results upon the price of the supply. Which he individually places upon the market. According to J. Stigler 'Oligopoly is that situation in which a firm bases its market policy in part on the expected behavior of a few close rivals'. Further, they may produce homogeneous or differentiated products.

Characteristics

Oligopoly is a distinct market condition. It has the following features:

1. The firms are inter dependent in decision making .
2. Advertising should be effective.
3. Firms should have group behavior.
4. Indeterminateness of demand curve .
5. The number of firms or producers or sellers are very small .
6. Product are identical or close substitutes to each other
7. There is an element of Monopoly

Price Determination Under Oligopoly

Pricing may be in condition of independent pricing, Pricing under price leadership and pricing under collusion.

Independent pricing (Kinked Demand Model or Price rigidity Model)

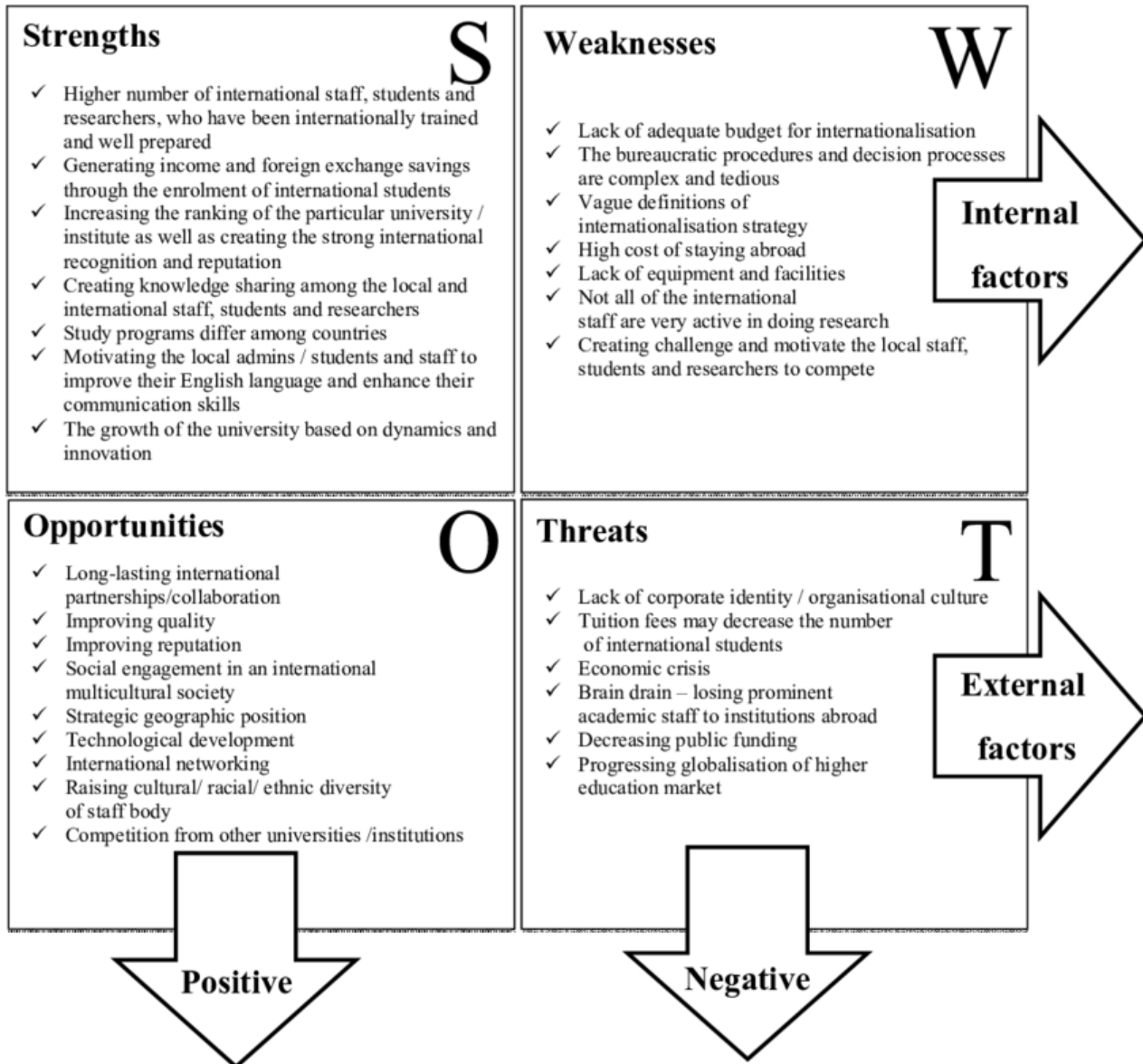
Kinked demand curve was first introduced by prof Paul M Sweezy to explain price rigidity under oligopoly. An oligopolist always guesses about his competitors reaction. They assume that if one decides to decrease the price, the others will also reduce the price. The assumption behind the kinked curve is that each oligopolist will act and react in a way that keep condition tolerable for all the members of the industry. If one firm reduces the price of the product, the others will be compelled to reduce the price. But some times, If one increases the price, the other will not increase the price. The firms in Oligopoly do not increase the prices due to the possibility of losing the customers to rivals who do not raise their prices. Firms usually do not change their price in response to small changes in costs.

The kinked demand curve has two segments i.e(i) the relatively elastic portion of the demand curve and(ii)the relatively inelastic portion of the demand curve. The following diagram will give you the clear idea:

UNIT IV

India and the World Economy: Globalization and the Indian economy; Brief Overview India's Foreign Trade- Balance of Payment, Challenges and Opportunities of International Finance; Impact of Monetary and Fiscal Policy on Indian Economy. Recent Advances in Managerial Economics.

GLOBALIZATION AND THE INDIAN ECONOMY



BALANCE OF PAYMENTS

What is the Balance of Payments

- The Balance of Payments of a country is a systematic accounting record of all economic transactions during a given period of time between the residents of the country and residents of foreign countries.
- The term “residents” includes all individuals and business enterprises, including financial institutions, that are permanently residing within the country’s borders, as well as govt. agencies at all levels.
- The word “transactions” refers to exports and imports of goods & services, lending & borrowing funds, govt. aid and military expenditure.

Basic types of economic transactions

- Purchase or sale of goods or services with a financial quid pro quo - or a promise to pay. One real and one financial transfer.
- Purchase or sale of goods or services in return for goods or services or a barter transaction. Two real transfers.

- An exchange of financial items e.g. purchase of foreign securities with payment in cash or by a cheque drawn on a foreign deposit. Two financial transfers.
- A unilateral gift in kind. One real transfer.
- A unilateral financial gift. One financial transfer.
- Thus, BoP of a country summarizes all the transactions that have taken place between its residents & foreigners in a given period, usually a year.

Accounting Principles in Balance of Payments

- The BoP is a standard double-entry accounting record and as such is subject to all the rules of double-entry book-keeping . This means that every international transaction should produce debit & credit entries of equal magnitude. BoP is a sources and funds statement that reflects changes in assets, liabilities and net worth during a specific period of time.
- A decrease in assets and an increase in liabilities represents CREDIT or SOURCE of funds.
- Thus, credit transactions are those which earn foreign exchange and are recorded in the BoP with a plus (+) sign.
- Examples-
 - Export of goods
 - Services provided to foreigners
 - Income received from foreign residents
- SOURCES of funds (Examples) -
 - Gifts received from foreign residents
 - Aid from foreign governments or residents
 - Borrowing from other countries
 - Sales of assets to foreign residents
 - Investment in the country by foreign residents.
- Credit transactions (+) are those that involve the receipt of payment from foreigners –
 - Exports of goods and services
 - Unilateral transfers (gifts) received from foreigners
 - Capital inflows.
 - ❖ An increase in foreign assets of the nation
 - ❖ A reduction in the nation’s assets abroad
- An increase in foreign assets of the nation
 - A US Resident purchases Indian stock. When a US resident acquires a stock in an Indian company, foreign assets in India go up. This is a capital inflow to India because it involves receipt of payment from a foreigner.
- A reduction in the nation’s assets abroad
 - When an Indian resident sells a foreign stock, Indian assets abroad decrease. This transaction is a capital flow to India because it involves receipt of payment from a foreigner.
- An increase in assets and a decrease in liabilities represents DEBIT or USE of funds.
- Thus, debit transactions are those which expend or use up foreign exchange and are recorded in the BoP with a plus (-) sign.
- Example: When Indian residents buy machinery from U.S. or perfume from France, foreign exchange is spent and the import is recorded as debit.
- Debit transactions (-) are those that involve the payment of foreign exchange to foreigners –
 - Imports of goods and services
 - Unilateral transfers (gifts) made to foreigners
 - Capital outflows.
 - ❖ An increase in nation’s assets abroad
 - ❖ A reduction in the foreign assets of the nation.

Components of the Balance of Payments

- The Current Account
 - **Merchandise trade balance** is the balance between exports and imports of tangible goods like automobiles, computers, machinery etc.
 - A favorable balance (surplus) occurs when exports are greater in value than imports.

- Merchandise exports and imports are the largest component of international payments for most countries.
- **Services** represent interest payments, shipping and insurance fees, tourism, dividends. A.k.a. “invisible trade”
- Credits under invisibles consist of services rendered by residents to non-residents, income earned by residents from their ownership of foreign financial assets (interest, dividends)
- Debits consist of same items with the roles of residents and non-residents reversed.
- **Unilateral Transfers** are gifts and grants by both private parties and governments. Private gifts and grants include personal gifts of all kinds and also relief organization shipments.
- (Example: Govt. aid from foreign countries in case of national calamities such as floods, droughts, earthquakes, etc.)
- The net balance between the credit and debit entries under the heads merchandise, invisibles and unilateral transfers taken together is the Current Account Balance.
 - The net balance is taken as deficit if negative (debits/use exceed credits/source), a surplus if positive (credits exceed debits).
- **The Capital Account**
 - **Direct Investments** occur when the investor acquires equity (ownership) such as purchases of stocks, the acquisition of entire firms or the establishment of new subsidiaries.
 - **Portfolio investments** represent sale and purchase of financial assets (bonds) that do NOT involve transfer of management or ownership. They occur only due to investor’s desire to diversify risk globally.
 - **Other capital flows** represent claims of maturity of less than one year, such as bank deposits, short-term loans, etc. Capital inflows are credits, outflows are debits. Hence increase in foreign assets or reduction in liabilities are debits; reduction in foreign assets or increase in liabilities are credits.

Loans raised, portfolio investments by foreigners, direct inward investment – credits (sources)

Loans repaid, investments by residents abroad, disinvestment by foreigners – debits. (uses)

- **Errors & Omissions**
 - A.k.a. “Statistical Discrepancy”
 - Difficulties in collection of BoP data
 - Unrecorded illegal transactions. (Dr./Cr.)
- **The Official Reserve Account**
 - Official reserves are govt. owned assets.
 - This account represents only purchases and sales by the central bank of the country (e.g. RBI)
 - The changes in official reserves are necessary to account for the deficit and surplus in the balance of payments.
 - The Foreign Exchange Reserves account records increases (debits) and decreases (credits) in reserve assets (RBI's holdings of gold, foreign currency assets, SDRs - Special Drawing Rights - are a reserve asset created by the IMF and allocated from time to time to member countries)
 - **4.4 Meaning of “Deficit” and “Surplus” in the Balance of Payments**
- As the BOP Statement includes inflows and outflows of funds arising from different types of activities, these are shown separately under different heads and sub-groupings.
- The terms "deficit" or "surplus" cannot then refer to the entire BOP but must indicate imbalance on a subset of accounts included in the BOP
- Several concepts of "balance" have evolved
 - **Trade Balance:** This is the balance on the merchandise trade account.
 - **Balance on Goods and Services:** This is the balance between exports and imports of goods and services.
 - **Current Account Balance:** This is the net balance on the entire current account.
 - **Balance on Current Account and Long Term Capital:** This is sometimes called **basic balance**. When current account transactions are combined with the long-term capital transactions in the capital account (i.e. foreign investments, external commercial borrowings), the balance between debits and credits is called basic balance.
- **Current Account Surplus** indicates excess of receipts over payments in the current account transactions of a country during the accounting period. These increase For-ex reserves or maybe utilized to repay IMF borrowings.

- **Current Account Deficit** indicates that international imports exceed exports. It is adjusted by either borrowings from the IMF or by utilizing for-ex reserves held by the country.
- Transactions in BOP maybe differentiated into 2 categories:
 - **Autonomous transactions:** Take place in the economy as part of functioning of the economy (e.g. exports, FDIs) A.k.a. “ Above-the-line”
 - **Accommodating transactions:** Undertaken for the purpose of adjusting surplus and deficit arising as a result of the autonomous transactions.A.k.a. “ Below-the-line”
- **4.5 Why is BoP important?**
- BOP is a reflection of :
 - Changes in consumer tastes in the country or abroad which may reduce imports/increase exports or vice-versa
 - Changes in country’s foreign exchange reserves
- Important to investors, MNCs, business managers, consumers and governments because it affects economic variables of a country.
- **4.6 Summary**
- The balance of payments of a county records its economic transactions with the rest of the world using a well defined set of accounting conventions
- The phrase balance of payments deficit or surplus normally refers to the balance between credits and debits on the current account
- Corporate finance managers must monitor the BOP data being put out by government agencies on a regular basis because they have both short term and long term implications for a host of economic and financial variables affecting the fortunes of the company

MONETARY POLICY

Monetary policy is the macroeconomic policy laid down by the central bank. It involves management of money supply and interest rate and is the demand side economic policy used by the government of a country to achieve macroeconomic objectives like inflation, consumption, growth and liquidity. In India, monetary policy of the Reserve Bank of India is aimed at managing the quantity of money in order to meet the requirements of different sectors of the economy and to increase the pace of economic growth. The RBI implements the monetary policy through open market operations, bank rate policy, reserve system, credit control policy, moral persuasion and through many other instruments. Using any of these instruments will lead to changes in the interest rate, or the money supply in the economy. Monetary policy can be expansionary and contractionary in nature. Increasing money supply and reducing interest rates indicate an expansionary policy. The reverse of this is a contractionary monetary policy.

For instance, liquidity is important for an economy to spur growth. To maintain liquidity, the RBI is dependent on the monetary policy.

OBJECTIVES OF MONETARY POLICY OF INDIA :-

The main objective of monetary policy in India is „growth with stability“. Monetary Management regulates availability, cost and use of money and credit. It also brings institutional changes in the financial sector of the economy. Following are the main objectives of monetary policy in India :-

1. Growth With Stability :-

Traditionally, RBI’s monetary policy was focused on controlling inflation. Thus, RBI have now adopted the policy of „Growth with Stability“. This means sufficient credit will be available for growing needs of different sectors of economy and at the same time, inflation will be controlled with in a certain limit.

2. Regulation, Supervision And Development Of Financial Stability :-

Financial stability means the ability of the economy to absorb shocks and maintain confidence in financial system. Threats to financial stability can come from internal and external shocks. Such shocks can destabilize the country’s financial system. Thus, greater importance is being given to RBI’s role in maintaining confidence in financial system through proper regulation and controls, without sacrificing the objective of growth. Therefore, RBI is focusing on regulation, supervision and development of financial system.

3. Promoting Priority Sector :-

Priority sector includes agriculture, export and small scale enterprises and weaker section of population. RBI with the help of bank provides timely and adequately credit at affordable cost of weaker sections and low income groups. RBI, along with NABARD, is focusing on microfinance through the promotion of Self Help groups and other institutions.

4. Generation Of Employment :-

Monetary policy helps in employment generation by influencing the rate of investment and allocation of investment among various economic activities of different labour Intensities.

5. External Stability :-

With the growth of imports and exports India's linkages with global economy are getting stronger. Earlier, RBI controlled foreign exchange market by determining exchange rate. Now, RBI has only indirect control over external stability through the mechanism of „managed Flexibility“, where it influences exchange rate by buying and selling foreign currencies in open market.

6. Encouraging Savings And Investments :-

RBI by offering attractive interest rates encourage savings in the economy. A high rate of saving promotes investment. Thus the monetary management by influencing rates of interest can influence saving mobilization in the country.

7. Redistribution Of income And Wealth :-

By control of inflation and deployment of credit to weaker sectors of society the monetary policy may redistribute income and wealth favouring to weaker sections.

8. Regulation Of NBFIs:-

Non – Banking Financial Institutions (NBFIs), like UTI, IDBI, IFCI plays an important role in deployment of credit and mobilization of savings. RBI does not have any direct control on the functioning of such institutions. However it can indirectly affects the policies and functions of NBFIs through its monetary policy.

QUANTITATIVE AND SELECTIVE METHODS OF CREDIT CONTROL USED BY RBI.

The Monetary Policy of RBI is not merely one of credit restriction, but it has also the duty to see that legitimate credit requirements are met and at the same time credit is not used for unproductive and speculative purposes RBI has various weapons of monetary control and by using them, it hopes to achieve its monetary policy.

I) GENERAL/ QUANTITATIVE CREDIT CONTROL METHODS :-

In India, the legal framework of RBI's control over the credit structure has been provided under Reserve Bank of India Act, 1934 and the Banking Regulation Act, 1949. Quantitative credit controls are used to maintain proper quantity of credit o money supply in market. Some of the important general credit control methods are:-

1. Bank Rate Policy :-

Bank rate is the rate at which the Central bank lends money to the commercial banks for their liquidity requirements. Bank rate is also called discount rate. In other words bank rate is the rate at which the central bank rediscounts eligible papers (like approved securities, bills of exchange, commercial papers etc) held by commercial banks.

Bank rate is important because it is the pace setter to other market rates of interest. Bank rates have been changed several times by RBI to control inflation and recession.

2. Open market operations :-

It refers to buying and selling of government securities in open market in order to expand or contract the amount of money in the banking system. This technique is superior to bank rate policy. Purchases inject money into the banking system while sale of securities do the opposite. During last two decades the RBI has been undertaking switch operations. These involve the purchase of one loan against the sale of another or, vice-versa. This policy aims at preventing unrestricted increase in liquidity.

3. Cash Reserve Ratio (CRR)

The Cash Reserve Ratio (CRR) is an effective instrument of credit control. Under the RBI Act of, 1934 every commercial bank has to keep certain minimum cash reserves with RBI. The RBI is empowered to vary the CRR between 3% and 15%. A high CRR reduces the cash for lending and a low CRR increases the cash for lending.

4. Statutory Liquidity Ratio (SLR)

Under SLR, the government has imposed an obligation on the banks to maintain a certain ratio to its total deposits with RBI in the form of liquid assets like cash, gold and other securities. The RBI has power to fix SLR in the range of 25% and 40% between 1990 and 1992 SLR was as high as 38.5%.

5. Repo And Reverse Repo Rates

In determining interest rate trends, the repo and reverse repo rates are becoming important. Repo means Sale and Repurchase Agreement. Repo is a swap deal involving the immediate Sale of Securities and simultaneous purchase of those securities at a future date, at a predetermined price. Repo rate helps commercial banks to acquire funds from RBI by selling securities and also agreeing to repurchase at a later date.

Reverse repo rate is the rate that banks get from RBI for parking their short term excess funds with RBI. Repo and reverse repo operations are used by RBI in its Liquidity Adjustment Facility. RBI contracts credit by increasing the repo and reverse repo rates and by decreasing them it expands credit. Repo rate was 6.75% in March 2011 and Reverse repo rate was 5.75% for the same period. On May 2011 RBI announced Monetary Policy for 2011-12. To reduce inflation it hiked repo rate to,7.25% and Reverse repo to 6.25%

II) SELECTIVE / QUALITATIVE CREDIT CONTROL METHODS :-

Under Selective Credit Control, credit is provided to selected borrowers for selected purpose, depending upon the use to which the control try to regulate the quality of credit - the direction towards the credit flows. The Selective Controls are :-

1. Ceiling On Credit

The Ceiling on level of credit restricts the lending capacity of a bank to grant advances against certain controlled securities.

2. Discriminatory Interest Rate (DIR)

Through DIR, RBI makes credit flow to certain priority or weaker sectors by charging concessional rates of interest. RBI issues supplementary instructions regarding granting of additional credit against sensitive commodities, issue of guarantees, making advances etc. .

3 Directives:-

The RBI issues directives to banks regarding advances. Directives are regarding the purpose for which loans may or may not be given.

4. Direct Action

It is too severe and is therefore rarely followed. It may involve refusal by RBI to rediscount bills or cancellation of license, if the bank has failed to comply with the directives of RBI.

5. Moral Suasion

Under Moral Suasion, RBI issues periodical letters to bank to exercise control over credit in general or advances against particular commodities. Periodic discussions are held with authorities of commercial banks in this respect.

CHALLENGES AND OPPORTUNITIES OF INTERNATIONAL FINANCE;

- In today's world finance cannot be anything but international
- Enormous growth in the volume of international trade
- Cross border capital flows and, in particular, direct investment have also grown enormously
- 1.2 The Finance Function
- The finance function in a firm can be conveniently divided into two sub-functions viz. accounting and control and treasury management
- Decisions taken by the treasurer have implications for the controller and vice versa
- Treasury Function: Acquisition and allocation of financial resources so as to minimize the cost and maximize the return, consistent with the level of financial risk acceptable to the firm is the core of treasury management
- Accounting and Control: Internal and External Reporting, MIS, Control, etc.
- 1.3 The Emerging Challenges
- Five key responsibilities of finance managers can be identified as follows:
 - To keep up-to-date with significant environmental changes and analyze their implications for the firm

- To understand and analyze the complex interrelationships between relevant environmental variables and corporate responses - own and competitive - to the changes in them
- 1.3 The Emerging Challenges (contd.)
 - To be able to adapt the finance function to significant changes in the firm's own strategic posture
 - To take in stride past failures and mistakes to minimize their adverse impact
 - To design and implement effective solutions to take advantage of the opportunities offered by the markets.
 - 1.4 Recent Changes in Global Financial Markets
- The outstanding feature of the changes during the eighties was integration
- Both the potential borrower and the potential investor have a wide range of choice of markets
- there has been a strong trend towards functional unification across the various types of financial institutions within individual markets
- 1.4 Recent Changes in Global Financial Markets (contd.)
- The driving forces behind this spatial and functional integration were first, liberalization of cross border financial transactions and, second, deregulation within the financial systems of the major industrial nations
- Assets denominated in various currencies became more nearly substitutable
- 1.4 Recent Changes in Global Financial Markets (contd.)
- Deregulation involved action on two fronts
 - Eliminating the segmentation of the markets for financial services
 - permitting foreign financial institutions to enter the national markets and compete on an equal footing with the domestic institutions
- This is a part of the overall trend towards securitization and disintermediation
- 1.4 Recent Changes in Global Financial Markets (contd.)
- Securitization : The process through which an issuer creates a financial instrument by combining other financial assets and then marketing the repackaged instruments to investors.
- Disintermediation : The process of withdrawal of funds from intermediary financial institutions, such as banks and other financial institutions, in order to invest them directly.
- 1.4 Recent Challenges in Global Financial Markets (contd.)
- The attainment of the Economic and Monetary Union (EMU) and the birth of Euro in the closing years of the decade of 1990's
- There is a race on to come up with increasingly complex and often esoteric products which, it is sometimes said, the bankers themselves do not fully understand
- 1.4 Recent Changes in Global Financial Markets (contd.)
- The explosive pace of deregulation and innovation has given rise to serious concerns about the viability and stability of the system
- Disturbances following a local financial crisis tend to spread throughout the global system at the "speed of thought" making the policy makers' task extremely difficult
- 1.5 Summary
- The finance manager of the new century cannot afford to remain ignorant about international financial markets and instruments and their relevance for the treasury function
- The job of the finance manager will increasingly become more challenging, demanding and exciting

