Master of Business Administration

(MBA)

GLOBAL BUSINESS ENVIRONMENT AND ECONOMICS

Semester-I

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Learning out comes

Students will be able to understand:

Unit-1

- Understand the interdisciplinary nature of managerial economics, incorporating principles from economics, business, and management.
- Analyze the role of managerial economics in bridging the gap between economic theory and business practice.
- Discuss how business objectives influence managerial decision making and strategic planning.

Unit-2

- Understand the fundamental concepts of production theory, including inputs, outputs, production functions, and factors of production.
- Understand the implications of the law of variable proportions for production decision making and resource allocation.
- Understand the relationship between revenue, price, and quantity demanded.

Unit-3

- Understand the role of supply in determining market equilibrium and influencing price levels.
- Discuss how changes in price affect the quantity supplied, holding other factors constant.
- Analyze real-world examples and applications of the law of supply in different industries and markets.

Unit-4

- Define the business cycle as the recurring pattern of expansion and contraction in economic activity over time.
- Understand the significance of the business cycle in macroeconomic analysis and policy formulation.
- Analyze the effectiveness and limitations of different policy tools in combating deflation and promoting economic recovery.

Unit-5

- Evaluate the implications of credit creation for money supply, economic activity, and financial stability.
- Analyze the factors driving international trade, such as comparative advantage, economies of scale, and factor endowments.
- Understand the drivers and consequences of globalization, including technological advancements, trade liberalization, financial integration, and cultural exchange.

SYLLABUS

GLOBAL BUSINESS ENVIRONMENT AND ECONOMICS

UNIT I

INTRODUCTION TO MANAGERIAL ECONOMICS

Definition of Managerial Economics, Nature of Managerial Economics, Business Problem, Objectives of Business Economics, Scope of Business Economics, Process of Business Decision Making, Importance of Business Economics

UNIT II

DEMAND AND SUPPLY ANALYSIS

Introduction of Demand, Types of Demand, Laws of Demand, Demand Schedule, Demand Curve, Exceptions to Laws of Demand, Elasticity of Demand, Types of Elasticity of Demand, Definition of supply, Factors affecting Supply, Law of Supply, Supply Curve, Market Structure and the Supply Curve

UNIT III

PRODUCTION AND MARKET STRUCTURE

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BUSINESS CYCLE AND CONCEPTS OF INFLATION AND DEFLATION

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UNIT V

ECONOMIC POLICIES AND EXTERNAL ENVIRONMENT

Introduction, Creation of Credit, Monetary Policy, Fiscal Policy, Introduction to foreign trade, Need for Foreign Trade, Objectives of Foreign Trade, Nature of Foreign Trade, Advantages and Disadvantages of Foreign Trade, Globalization

UNIT I

INTRODUCTION TO MANAGERIAL ECONOMICS

STRUCTURE

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1.1 LEARNING OBJECTIVE

Students are expected to learn after this lesson.

- Define Managerial Economics
- Explain the Nature and Role of Managerial Economics
- Understand Business Challenges through Managerial Economics
- Understand the process of decision making

1.2 INTRODUCTION

Managerial economics refers to application of economic theory for business practice. It is an applied branch of knowledge. Management deals with principles which help in decision making under uncertainty. Economics, on other hand, provides a set of propositions for optimum allocation of scarce resources to achieve desired objectives.

1.3 DEFINITION OF MANAGERIAL ECONOMICS

- Mansfield, "Managerial economics is concerned with the application of economic concepts and economic analysis to the problems of formulating rational managerial decisions."
- Spencer and Siegelman have defined the subject as "the integration of economic theory with business practice for the purpose of facilitating decision making and forward planning by management."
- McNair and Meriam said, "Managerial economics consists of the use of economic modes of thought to analyze business situations.

1.4 NATURE OF MANAGERIAL ECONOMICS

The most important function in managerial economics is decision-making. It involves the complete course of selecting the most suitable action from two or more alternatives. The main function is to make the most profitable use of resources which are limited such as labor, capital, land etc. A manager is very careful while taking decisions as the future is uncertain; he ensures that the best possible plans are made in the most effective manner to achieve the desired objective which is profit maximization.

Micro economic in character

Managerial Economics is micro economic in character as it is concerned with the problems of individual business firm. Thus, managerial economics aims at providing help in decision making firms.

Scientific art

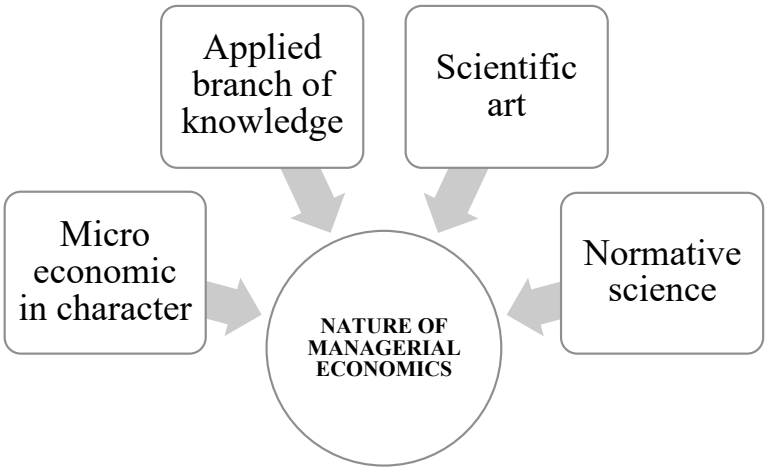
Managerial Economics is a scientific art which uses economic thought. It facilitates good and result oriented decisions under conditions of uncertainty. It can be applied to both public and private sector.

Normative science

Managerial Economics is normative science and can be used to make better management decisions. It is concerned with what should be done under given circumstances to achieve the organizational goals most efficiently.

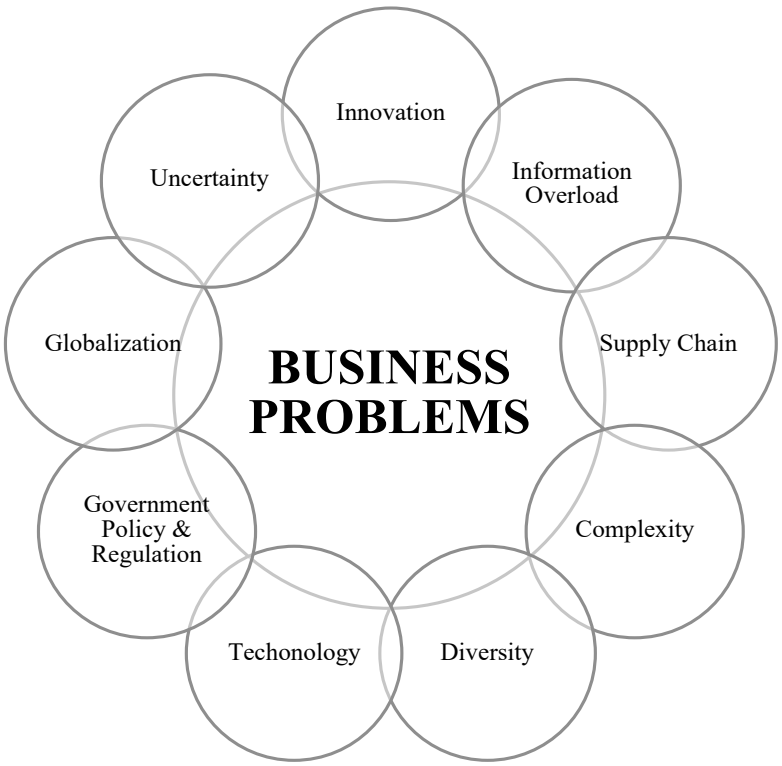
Applied branch of knowledge

Managerial Economics is an applied branch of knowledge as it regards to policy formulation, decision making and future planning. It is concerned with optimum allocation of resources.



1.5 BUSINESS PROBLEM

Following are the major problems faced by businesses around the globe and affect their managerial decision making.



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- **Uncertainty**
  Businesses find great uneasiness in uncertainty. Ambiguity in the global economy, improbability in the credit markets, uncertainty in how new set of laws will affect business, hesitation about what competitors are doing, and doubt about how new technology will affect the business are few listed reasons. The main thing is that uncertainty leads to a temporary focus, business are unfocused from long-term planning and running behind short-term results, with uncertainty often the excuse. The problem to be solved, therefore, is to balance the need for a more spontaneous, short-range focus with the need for informed, long-term strategies.

- **Globalization**
  Considering foreign cultures is most essential in order to enter into new markets with existing products and services, to designing new merchandise and services for new consumers, to recognizing budding, troublesome competitors that only months earlier weren't even known. The problem to be solved is to better be aware of international markets and cultures through better information collection and its analysis. Likewise, the implausible degree of government interference in nearly all major economies of the world is leading to much larger ambiguity in the global marketplace, making international operations ever harder to administer.

- **Innovation**
  It is observed that big companies are aggressive with innovation and a better innovation process is at the top of the schedule for most CEOs, but the idea of a more original culture appears too fearsome. The difficulty to be solved is how to become more innovative while still uphold a sense of control over the business.

- **Government Policy & Regulation**
  A shifting regulatory situation is always of concern in certain businesses, but unsure energy, environmental and financial guidelines are complicating the decision making for nearly all organizations today. Either demand from customers or shareholders to become "Green," the threat of increased costs due to new carbon taxes, regular talk of modification of corporate tax rates, or the imminent healthcare mandate for businesses, etc. are yet unclear. The problems to be solved are to understand the meaning of regulation and government policy in your industry, its implications for your business, and to develop the skills necessary to deal with it.

- **Technology**
  The velocity of technological enhancement is running at an exponentially escalating rate. Because of rapid changing next-generation technology it is difficult to make capital investment in technology. The problem to be solved is to build up a long-term technology strategy while remaining elastic enough to take benefit of unforeseen technology advancements.

- **Diversity**
  Diversity brings many challenges, as it makes it far more likely that people do not agree, and the lack of agreement makes running a business very difficult. Simul-

taneously the lack of diversity within many large company leadership teams show the way to a narrow view of an ever-changing and diverse world leading to out of date culture for too long. The problem to be solved is to first define what diversity really means in your corporation, then promote the development of contradictory ideas and viewpoints while make certain a sufficiently unified environment that efficiently gets work done.

- **Complexity**
  There's no hesitation that life and business have gotten more multifaceted, even as certain tasks and activities have become easier due to information technology. The speed of change is hastening. The worldwide economy is becoming still more associated, creating a much larger and more diverse population of customers and suppliers. Services and Manufacturing companies are increasingly targeted at minor, specialized markets due to the flexibility that IT provides in these areas. The problem is how to develop better systems-thinking ability so that companies can design business models, processes, products and services in a way that reduces unnecessary complications.

- **Information Overload**
  In today's world it is only information is changing growing swiftly. The ability of companies, to consume and make sense of the information that is available to make good decisions is becoming a nearly impossible challenge. The difficulty to be resolved is to deal with these tonnes of information with both technology and human know-how, then to convert this information into valuable knowledge.

- **Supply Chains**
  Due to uncertainty in demand, companies are carrying smaller inventories than ever. Simultaneously, uncertainty in supply, driven by wildly changing product prices, an noticeable increase in weather-related interruption and increasing war for raw materials makes supply chain planning more difficult than ever. The aim is to develop a supply-chain strategy that not only minimizes the risk of supply-chain disorder but also ensures the lowest costs.

1.6 OBJECTIVES OF BUSINESS ECONOMICS

Following are the objectives of business economics:

- To integrate economic theory with business practice.
- To apply economic concepts and principles to solve practical business problems in real life.
- To avoid abstract discussion to get results.
- To employ the most modem instruments and tools to find solutions to business problems.
- To make optimum use of scarce resources of a firm to maximum profits.

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- To help in achieving other objectives of a firm like attaining industry leadership, expansion of market share, etc.
- To help in making overall development of a firm.
- To help the manager to understand the intricacies of business problems and to make right decisions at the right time.

1.7 SCOPE OF BUSINESS ECONOMICS

The scope of business economics includes all those theories and concepts which can be used to analyse the operation and environmental problems to take appropriate business decisions and to formulate future plans.

- **Demand Analysis and Forecasting**
  A business firm is an economic organization, which is engaged in transforming productive resources into goods that are to be sold in the market. A major part of business decision making depends on accurate estimates of demand. A forecast of future sales serves as a guide to management for preparing production schedules and employing resources.

- **Cost and Production Analysis**
  Cost estimates are most useful for management decisions. The different factors that cause variations in cost estimates should be given due consideration for planning purposes. The chief topics covered under cost and production analysis are: Cost concepts and classifications, Cost-outputs Relationship, Economies and Diseconomies of scale, Production.

- **Pricing Decision, Policies and Practices**
  As price gives income to the firm, it constitutes the most important field of business economies. The various aspects that are dealt under it cover the price determination in various market forms, pricing policies, pricing method, differential pricing, productive and price forecasting.

- **Profit Management**
  The chief purpose of a business firm is to earn maximum profit. There is always an element of uncertainty about profits because of variation in costs and revenues. The important aspects covered under this area are nature and measurement of Profit, Profit Policies and Techniques of profit planning like Break-Even analysis.

- **Capital Management**
  The problems relating to the firm's capital investments are perhaps the most complex and troublesome. Capital management implies planning and control of capital expenditure because it involves a large sum and moreover the problems in disposing the capital assets of are so complex that require considerable time and labour.

- **Analysis of Business Environment**
  The environment factors influence the working and performance of a business undertaking. Therefore, the managers will have to consider the environmental factors

in the process of decision-making. Decisions taken in isolation of environmental factors would prove harmful to the firm. Therefore, the management must be fully aware of economic environment, particularly those economic factors which constitute the business climate.

CHECK YOUR PROGRESS

1. **What are the various scopes of economics?**
2. **Explain the objectives of business economics.**
3. **What are the major problems faced by businesses around the globe which affect their managerial decision making?**
4. **Define Managerial Economics.**
5. **Explain the Nature and Role of Managerial Economics.**

1.8 PROCESS OF BUSINESS DECISION MAKING

The problem of decision making a number of alternatives are available in it is a process of selecting the best out of the alternative opportunities open to the firm. The process of decision-making process of the following steps:

- The object to be achieved must be clearly defined
- All the information regarding economic and technological environment should be collected and analysed.
- The possible course of Action should be developed and analysed properly.
- From the available alternatives a particular course of action is to be selected.

However, all the steps are very crucial in business decision making. Modem business conditions are so competitive and complex that personal business sense need to be supplemented with quantitative analysis of business data on market conditions and business environment. It is relevant to know that along with economic considerations, the process of business decision making is also influenced by behavioural considerations, technological forces and environmental factors.

Let us take the example of a firm which plans to launch a new product for which close substitutes are available in the market. The managers of the firm will have to investigate into two major issues:

- **Production related issues**
  In the field of production, managers will be required to collect information on techniques of production available, cost of production of different production techniques, availability and price structure of inputs required and the cost structure of competitive products.

- **Issues related to sale prospects**
  To assess sales prospects, managers will be required to collect information on general market trends, existing and potential competitors, and pricing strategy of prospective competitors and availability of complementary goods in the market. In

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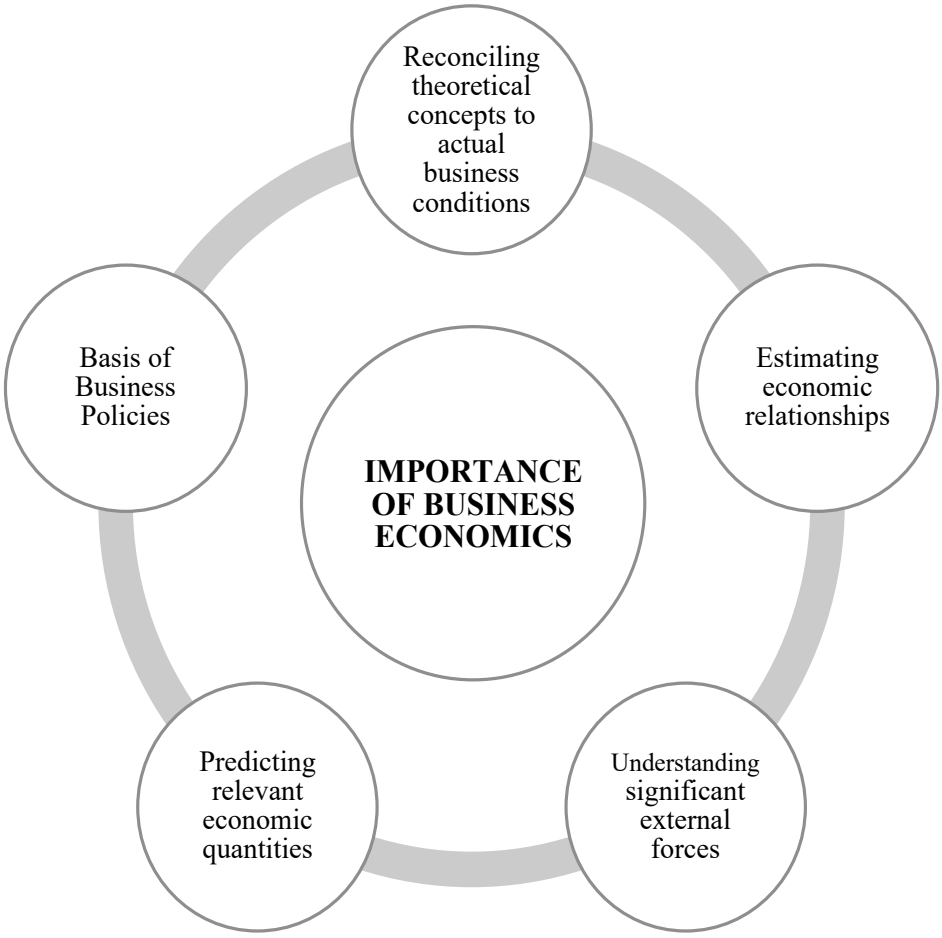
this kind of market analysis, the knowledge of economic theories and application of the tools of economic analysis helps in process of decision making in a significant way.

1.9 IMPORTANCE OF BUSINESS ECONOMICS

Managerial economics plays a vital role in the decision-making process of the firm.



- **Reconciling theoretical concepts to actual business conditions**
  Managerial Economics differs from the traditional economics in that it is directly concerned with the real business situations and is concerned more about behaviour on the practical side. Thus, managerial economics reconciles the tools, techniques, models and theories of traditional economics with the actual business practice and with the environment in which a firm has to operate.

- **Estimating economic relationships**
  The significance of managerial economics is to be traced in the development of planning decisions based on the analysis of all relevant data, past experiences and future expectations. As an applied science it helps in estimating industry trends and macro factors which are relevant to concerned business activity.

- **Predicting relevant economic quantities**
  A major contribution of managerial economics to management pertains to identification of key variables in the business decision making process. Most managerial decisions are made under conditions of varying degree of uncertainty about future. To reduce the uncertainty, it is essential to investigate the problem, do research before the action is taken.

- **Understanding significant external forces**
  Managerial economist incorporated elements of both micro and macroeconomics dealing with management problem in arriving at optimal decisions. Important external factors affecting decision making process are economic system of the country, business cycles, government policies, over which a firm cannot have any control. However, internal forces which relate to business operations are within control of the firm.

- **Basis of Business Policies**
  Managerial economics is the foundation of business policies and these are prepared on the basis of studies and findings of managerial economics. Modern businessman depends upon skilful management, appropriate timely economic decision making which is facilitated by the science of managerial economics.

1.10 CHAPTER SUMMARY

Decision Making is key aspect for any management professional. The applied economics in field of management forms the basis of such decision making in business world. This chapter explains the managerial economics, nature, role and challenges in business enabling effective decision making.

Modem business conditions are so competitive and complex that personal business sense need to be supplemented with quantitative analysis of business data on market conditions and business environment. It is relevant to know that along with economic considerations, the process of business decision making is also influenced by behavioural considerations, technological forces and environmental factors.

1.11 REVIEW QUESTIONS

SHORT ANSWER TYPE QUESTIONS

1. **Write a short note on Nature of managerial economics.**
2. **Write a short note on Objectives of business economics.**
3. **Write a short note on Scope of business economics.**
4. **Enlist problems faced by a business using managerial economics.**
5. **Enlist the importance of business economics.**

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LONG ANSWER TYPE QUESTIONS

1. **Define and Explain Managerial Economics.**
2. **Elaborate role of managerial economics.**
3. **What is the process of business decision making in managerial economics?**
4. **Why business economics considered to be important?**
5. **What is the basis of business economics? Explain in brief.**

1.12 MULTIPLE CHOICE QUESTIONS

1. **A firm which plans to launch a new product for which close substitutes are available in the market will have to investigate into two major issues. They are: _____**

   a. Production related issues

   b. Issues related to sale prospects

   c. Issues related to distribution

   d. a. and b. both

2. **Managerial economics reconciles the tools, techniques, models and theories of _____ with the actual business practice and with the environment in which a firm has to operate.**

   a. Traditional economics

   b. Modern economics

   c. Conventional Economics

   d. None of the above

3. **Managerial economist incorporated elements of _____ dealing with management problem in arriving at optimal decisions.**

   a. Both micro and macroeconomics

   b. Micro economics

   c. Macroeconomics

   d. None of the above

4. **Managerial economics plays a vital role in the decision-making process of the firm due to _____.**

   a. Reconciling theoretical concepts to actual business conditions

   b. Estimating economic relationships

   c. Predicting relevant economic quantities

   d. Understanding significant external forces

   e. All of the above

5. **The scope of business economics includes _____.**

   a. Demand Analysis and Forecasting

   b. Cost and Production Analysis

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c. Pricing Decision, Policies and Practices

d. Profit and Capital Management

e. All of the above

6. **The major problems faced by businesses around the globe and affect their managerial decision making are: _____.**

a. Uncertainty

b. Globalization

c. Government Policy & Regulation

d. All of the above

7. **The process of business decision making is influenced by behavioural considerations, technological forces and _____factors.**

a. environmental

b. political

c. social

d. None of the above

8. **Management deals with principles which help in decision making under_____.**

a. Certainty

b. uncertainty

c. Risk

d. None of the above

9. **The chief purpose of a business firm is to earn maximum _____.**

a. wealth

b. Profit

c. Fame

d. None of the above

10. **The aim is to develop a _____ strategy that not only minimizes the risk of supply-chain disorder but also ensures the lowest costs.**

a. distribution chain

b. marketing chain

c. supply-chain

d. None of the above

♦♦♦♦♦

UNIT II

DEMAND AND SUPPLY ANALYSIS

STRUCTURE

2.1 LEARNING OBJECTIVE

After reading this lesson you should be able to:

- Understand the Concept of Demand
- Understand the Types of Demand
- Understand Demand Schedule
- Understand Law of Demand
- Understand concept of Elasticity of Demand
- Understand concept of Exceptions in Demand
- Understand the Concept of Supply and Stock
- Understand the Determinants of Supply
- Explain the Supply Function
- Explain the Law of supply
- Understand the Increase and Decrease in Supply Functions

2.2 INTRODUCTION AND DEFINITION OF DEMAND

Ordinarily, by demand is meant the desire or want for something. In economics, demand is a technical concept and refers to effective demand i.e., the number of buyers who are willing to purchase at a given price and over a given period of time. The use of word 'demand' is made to show the relationship between the prices of a commodity and the amounts of the commodity which the customers want to purchase at those prices.

Thus, there are three necessary things for a demand to exist:

- The price of a commodity
- The amount of the commodity the customer or consumer is prepared to buy per unit time.
- A given time period

A want with three attributes: desire to buy, willingness to pay and ability to pay, becomes effective demand. Only the concept of effective demand figures in economic analysis and business decisions.

Benham: "The demand for a thing at a given price is the amount of it which will be bought per unit time at that place."

Mayers: "The demand for good is a schedule of the amount that buyers would be willing to purchase at all possible prices at anyone instant of time."

Hibdon: "Demand means the various quantities of goods that would be purchased per time period at different prices in a given market."

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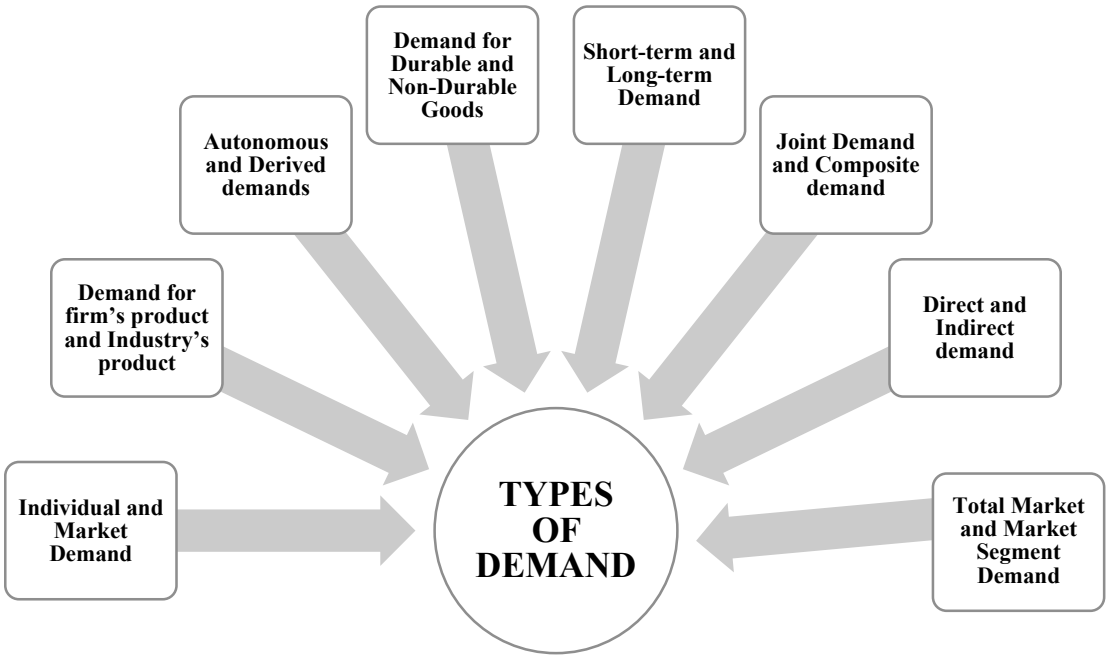
2.3 TYPES OF DEMAND



- **Individual and Market Demand**
  The quantity of a commodity with an individual is willing to buy at a particular size of the commodity during a specific time table given his money income to space and price of a commodity is known as 'individual demand' for a commodity.

  The total quantity which all the customer of a commodity are willing to buy at a given price per time unit, given their money, income, his taste and price of other commodities is known as 'market demand' for the commodity.

- **Demand for firm's product and Industry's product**
  The quantity of a Firm's produce that can be disposed of at a given price over time period denotes the demand for the firm's product. The aggregate of demand for the product of all the firms of an industry is known as the market demand for the industry's products.

- **Autonomous and Derived demands**
  Autonomous demand for a commodity is one that arises independent of the demand for any other commodity whereas derived demand is one that is tied to the demand for 'parent product'. Demand for the food, clothes, shelter, etc. is autonomous demand. Demand for land, fertilizers and agricultural tools and implements are derived demands, for these goods are demanded because food is demanded.

- **Demand for Durable and Non-Durable Goods**
  Demand is often classified also under demand for durable and non-durable goods. Durable goods are those, whose use is not exhausted by single use. Such goods can be used repeatedly or continuously over a period. Durable goods may be consumer

as well as producer goods. Durable consumer goods include clothes, shoes; owners occupied residential houses, furniture, utensils, refrigerators, cars etc.

Non-durable goods on the other hand, are those which can be used or consumed only once (e.g. Food items) and their total utility is exhausted in a single use.

- **Short-term and Long-term Demand**
  Short term demand refers to the demand for such goods as arc over a short period. For example, fashion consumer goods, goods of seasonal use, and inferior substitutes during the scarcity period of superior goods etc.

  The long-term demand, on the other hand, refer to the demand, which exist over a long period. The change in long term demands us perceptible only after a long period. Most generic goods have long term demands. For example, demand for consumer and producer goods, durable and non-durable goods, is long term demand, though their different varieties or brands may have short term demands.

- **Joint Demand and Composite demand**
  When two or more goods are jointly demanded at the same time to satisfy a single want, it is called as joint or complementary demand. There is joint demand for cars and petrol, pens and ink, tea and sugar etc. a commodity is said to have composite demand when it can be put to several alternative uses. This is not only peculiar to commodities like leather, steel, coal, paper etc., but also to factors of production like land, labour and capital.

- **Direct and Indirect demand**
  Demand for goods that are directly used for consumption by the ultimate consumer is known as direct demand. Since such goods are used for final consumption, such demand is also called consumer's demand. Demand for all consumers' goods such as bread, tea, readymade shirts, houses etc. are direct demands. Indirect demand is the demand for the goods that are not used directly by the customer. They are used by producers for producing other goods. So, indirect demand is also known as producer's goods demand.

- **Total Market and Market Segment Demand**
  The total market demand will be aggregate demand for the product for all the segments while market segment demand would refer to demand for the product in that specific market segment. Demand analysis requires not only the total demand for a product but also a breakup of the demand for the product in different parts of the market. The market may be segmented on the basis of age, sex, geographic region etc.

2.4 LAWS OF DEMAND AND DEMAND SCHEDULE

The general tendency of consumers' behaviour is demanding a commodity in relation to the changes in its price is described by the law of demand. The Taw of demand' is one

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of the fundamental laws of economics. It indicates the relation between the price of a commodity and its quantity demanded in the market.

The Economists defined the Laws as:

Marshall:
"There is one general law of demand- greater the amount is to be sold, the smaller must be the price at which it is offered in order that it may find purchasers or in other words the amount demanded increases with the fall in price and diminishes with the rise is price."

Samuelson:
"The law of demand states that people will buy more at lower price and buy less at higher price, other things remaining the same."

ASSUMPTIONS

The above stated law of demand is conditional and is thus based on the following assumptions:

- **No change in customer's income:** Throughout the operation of the laws, the consumers' income should remain the same.
- **No change in prices of related goods:** The prices of other related goods i.e., those of substitutes and complementary goods remain unchanged.
- **No change in consumer's preferences:** The consumer's tastes, habits and preferences should remain constant.
- **No change in fashion:** If the commodity in question goes out of fashion, a buyer may not buy more of it even at a substantial price reduction.
- **No expectations of future price changes or shortage**: Buyers do not expect any shortages in the supply of commodity in the market and consequent future change in prices.
- **No change in size of population:** The number of buyers and their preferences should remain constant. Thus, it is necessary that the size of population as well as age-structure and sex-ratio of the population as well as age-structure and sex-ratio of the population should remain same throughout the operation of the law.
- **No change in government policy**: The level of taxation and fiscal policy of the government remain the same throughout the operation of the law, otherwise it may lead to distortion in consumer's preferences.
- **No change in the distribution of income and wealth of the community**: There should be no redistribution of income either, so that the levels of income of the consumers remain the same.

DEMAND SCHEDULE

The demand schedule is represented by a tabular statement of price - quantity relationship i.e., it shows how the quantity demanded of good varies with price, other things remaining constant.

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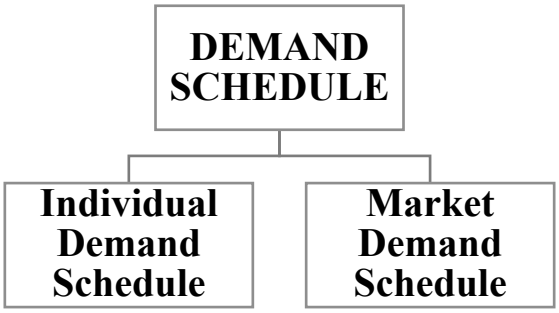
CHARACTERISTICS OF DEMAND SCHEDULE

- The demand schedule merely expresses the present behaviour of individual concerned in purchasing the commodity at alternative prices.
- It shows only the variation in demand at varying prices.
- It seeks to illustrate the principle that more of a commodity is demanded at a lower price that at a higher one. In fact, most of the demand schedules show an inverse relationship between price and quantity demanded.

This relationship between quantity demanded of a product and its price is the basis of the law of demand.



There are two types of demand schedule:

1. **Individual Demand Schedule**
   A tabular statement showing the quantities of a commodity that will be purchased by an individual at various prices in a given period of time is referred to as an individual demand schedule. A hypothetical individual demand schedule for a commodity, X is given in Table No. 1 below.

Price of X (Rs.)	Quantity Demanded of X (Units)
30	2
25	4
20	6
15	10
10	16

Table No. 1

2. **Market Demand Schedule**
   The aggregate of individual demands for a product is called as market demand for the product. The tabular statement representing the quantities of a commodity demanded in aggregate by all individuals in the market at different prices in a given period of time represents total market demand at various prices

   Horizontal summation of individual demand schedules produces the market demand schedule. For example, suppose there are three consumers A, B and C of a commodity X that their individual demands are given as in Table No. 2.

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X (Rs.)	A	B	C	Demanded of X
4	1	3	4	8
3	2	4	5	11
2	3	5	7	15
1	5	9	10	24

Table No.2

The last column presents the markets demand schedule and is constructed by horizontal addition of quantities at various prices shown by individual demands schedules. It is the aggregate of individual demands by three consumers at different prices. Just like an individual demand schedule, the market demand schedule also depicts an inverse relationship between the price and quantity demanded.

2.5 DEMAND CURVE AND EXCEPTIONS TO LAWS OF DEMAND

The demand curve is a locus of points showing various alternative price-quantity combinations. Demand curve shows the quantities of a commodity which a customer would buy at different prices per unit of time. Each point on the demand curve shows a unique price quantity combination.

Thus, unique demand curve shows a functional relationship between the alternative prices of a commodity and its corresponding quantities which a customer would like to buy during a specific period of time.

R.G. Lipsey:
"The curve which shows the relation between the price of a commodity and the amount of that commodity the consumer wishes to purchase is called Demand Curve."

- **Individual demand curve**
  Conventionally a demand curve is drawn by representing the price variable on the vertical axis and demand variable on the horizontal axis. Figure below illustrates the individual demand curve based on the data in Table.

  Corresponding to the price-quantity relations given in the demand schedule, various points like a, b, c, d and e is obtained. By joining these points, we get a smooth curve representing an individual demand curve.

- **Market demand curve**
  Market demand curve is derived by horizontal summation of individual demand curve for a given commodity. Figure below illustrates the market demand curve based on the data in adjoining Table.

  The market demand curve Dm, can also be obtained by plotting the total demand given in the last column against the corresponding first column.

  Graphically, market demand curve is horizontal summation of individual demand curves. However, the slope of the market demand curve is an average of the slope of

individual demand curves. Essentially, the market demand curve has a downward slope indicating an inverse price-quantity relationship.

FACTORS AFFECTING DEMAND

There are factors on which the demand for a commodity depends. These factors are economic, social as well as political factors. The effect of all the factors on the amount demanded for the commodity is called Demand Function.

These factors are as follows:

1. **Price of the Commodity**: The most important factor-affecting amount demanded is the price of the commodity. The amount of a commodity demanded at a particular price is more properly called price demand. The relation between price and demand is called the Law of Demand. It is not only the existing price but also the expected changes in price, which affect demand.
2. **Income of the Consumer**: The second most important factor influencing demand is consumer income. In fact, we can establish a relation between the consumer income and the demand at different levels of income, price and other things remaining the same. The demand for a normal commodity goes up when income rises and falls down when income falls. But in case of Giffen goods the relationship is the opposite.
3. **Prices of related goods**: The demand for a commodity is also affected by the changes in prices of the related goods also. Related goods can be of two types: (i). Substitutes which can replace each other in use; for example, tea and coffee are substitutes. The change in price of a substitute has effect on a commodity's demand in the same direction in which price changes. The rise in price of coffee shall raise the demand for tea; (ii). Complementary foods are those which are jointly demanded, such as pen and ink. In such cases complementary goods have opposite relationship between price of one commodity and the amount demanded for the other. If the price of pens goes up, their demand is less as a result of which the demand for ink is also less. The price and demand go in opposite direction. The effect of changes in price of a commodity on amounts demanded of related commodities is called Cross Demand.
4. **Tastes of the Consumers:** The amount demanded also depends on consumer's taste. Tastes include fashion, habit, customs, etc. A consumer's taste is also affected by advertisement. If the taste for a commodity goes up, its amount demanded is more even at the same price. This is called increase in demand. The opposite is called decrease in demand.
5. **Wealth**: The amount demanded of commodity is also affected by the amount of wealth as well as its distribution. The wealthier are the people; higher is the demand for normal commodities. If wealth is more equally distributed, the demand for necessaries and comforts is more. On the other hand, if some people are rich, while the majorities are poor, the demand for luxuries is generally higher.
6. **Population:** Increase in population increases demand for necessaries of life. The composition of population also affects demand. Composition of population

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means the proportion of young and old and children as well as the ratio of men to women. A change in composition of population has an effect on the nature of demand for different commodities.

7. **Government Policy**: Government policy affects the demands for commodities through taxation. Taxing a commodity increases its price and the demand goes down. Similarly, financial help from the government increases the demand for a commodity while lowering its price.
8. **Expectations regarding the future**: If consumers expect changes in price of commodity in future, they will change the demand at present even when the present price remains the same. Similarly, if consumers expect their incomes to rise in the near future they may increase the demand for a commodity just now.
9. **Climate and weather:** The climate of an area and the weather prevailing there has a decisive effect on consumer's demand. In cold areas woollen cloth is demanded. During hot summer days, ice is very much in demand. On a rainy day, ice cream is not so much demanded.
10. **State of business:** The level of demand for different commodities also depends upon the business conditions in the country. If the country is passing through boom conditions, there will be a marked increase in demand. On the other hand, the level of demand goes down during depression.

Demand function

Demand function is a function that describe how much of a commodity will be purchased at the prevailing prices of that commodity and related commodities, alternative income levels, and alternative values of other variables affecting demand.

Price is not the only factor which determines the level of demand for a good. Other important factor is income. The rise in income will lead to an increase in demand for a normal commodity. A few goods are named as inferior goods for which the demand will fall, when income rises. Another important factors which influence the demand for a good are the price of other goods, changes in population, changes in fashion, changes in taste, etc.

A change in demand occurs when one or more of the determinants of demand change and it is expressed in the following equation.

Qd (X) = f (Px, Pr, Y, T, Ey, Ep, ….)

Where,

Qd (X) = quantity demanded of good 'X

Px = the price of good X

Pr = the price of a related good

Y = income level of the consumer

T = taste and preference of the consumers

Ey = expected income

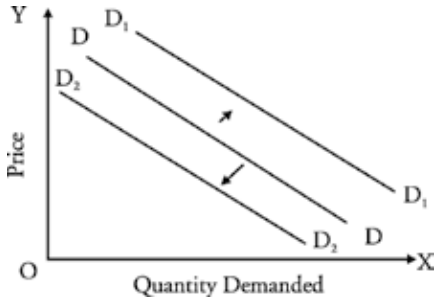
Ep = expected price

The above-mentioned demand function expresses the relationship between the demand and other factors. The quantity demanded of commodity X varies according to the price of commodity (Px), income (Y), the price of a related commodity (Pr), taste and preference of the consumers (T), expected income (Ey) etc.

SHIFTS IN DEMAND

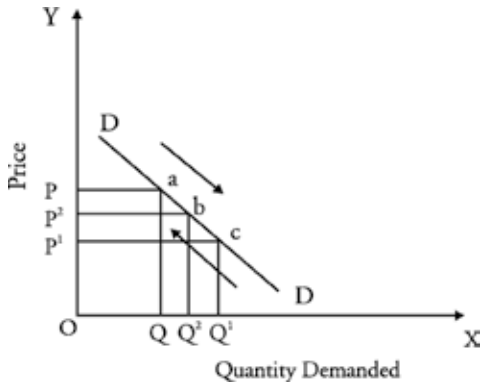
Shift of the demand curve occurs when the determinants of demand change. When tastes and preferences and incomes are altered, the basic relationship between price and quantity demanded changes (shifts). This shifts the entire demand curve upward (rightward) and is called as increase in demand because more of that commodity is demanded at that price. The downward shift (leftward) is called as decrease in demand. The new demand curves D1D1 and D0D0 can be seen in the graph below.

Graph – Shift in Demand Curve



Therefore, we understand that a shift in a demand curve may happen due to the changes in the variables other than price. The movement along a demand curve takes place (extension or contraction) due to price rise or fall. Extension and Contraction of Demand Curve: When with a fall in price, more of a commodity is bought, then there is an extension of the demand curve. When lesser quantity is demanded with a rise in price, there is a contraction of demand.

Graph –Extension and Contraction in Demand Curve



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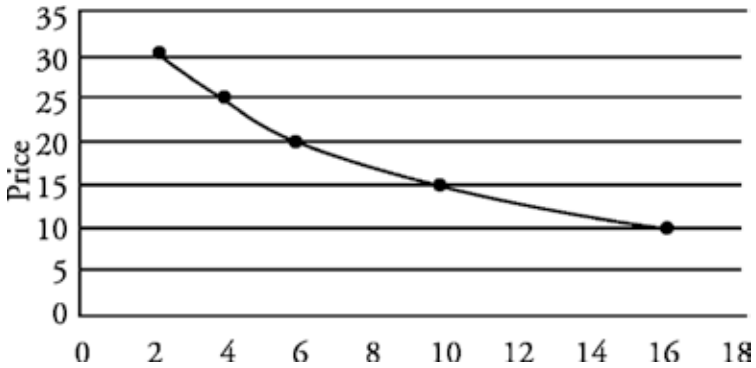
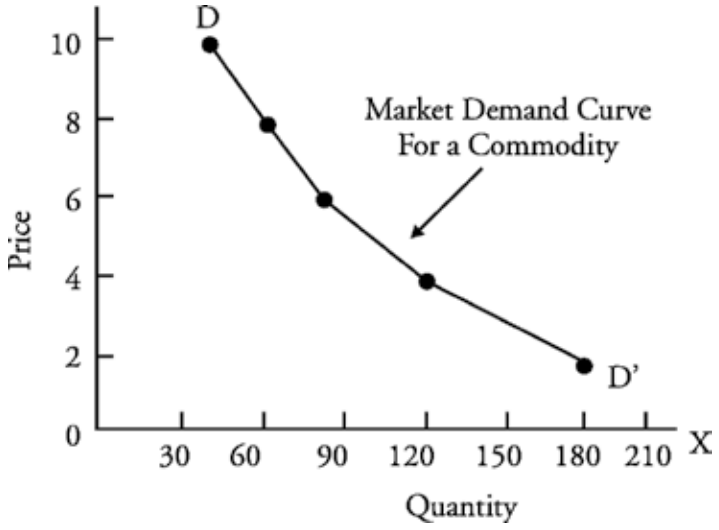
From the above graph we can understand that an increase in prices result in the contraction of demand. If the price increases from P2 to P, then the demand for the commodity fall from OQ2 to OQ. Therefore, the demand curve DD contracts from 'b' to 'a' on the other hand when there is a fall in price, it results in the extension of demand. Let us assume that the price falls from P2 to P1 then the quantity demanded OQ2 increases to OQ1 and the demand curve extends from point 'b' to 'c'.

EXCEPTIONS TO LAWS OF DEMAND

Law of demand is generally believed to be valid in most of the situations. However, there are cases which are contrary to the law of demand. Such cases are referred to as the exceptions to the general law of demand. The demand curve for such cases will be an upward sloping demand curve as shown below.



Demand



In figure, DD is the demand curve which slopes upward from the right. At OP1 price, the quantity demanded is OQ1. When the price rises to OP2, demand expands to OQ2. Thus, the upward sloping demand curve expresses a direct functional relationship between price and demand. It is contrary to the law of demand as they represent the phenomenon that more will be demanded at a higher price and vice versa. The upward sloping demand curve, thus, refers to the exception to the law of demand.

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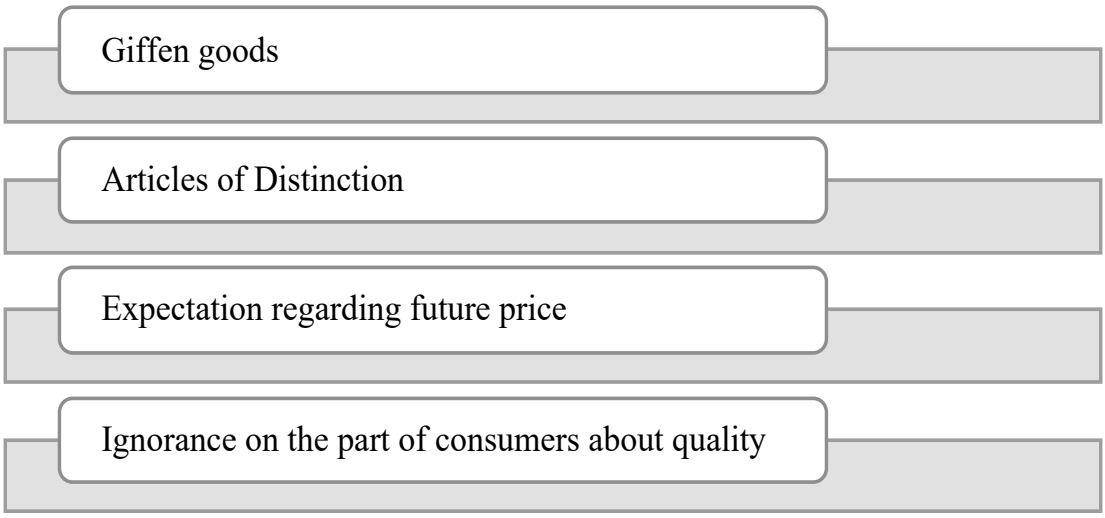
Following are the exceptional cases where law of demand does not apply.



- **Giffen goods**
  This exception to the law of demand was pointed out by Sir Robert Giffen. In case of inferior goods when the price falls, quite often less quantity will be purchased that before because of the negative income effect and people's increasing preference for a superior commodity with the rise in their real income. English workers had two main items of consumption: bread and meat. As the price of bread fell in the market, they could buy the same amount of bread with less money. The money saved was invested in purchasing more meat, superior commodity for the English workers. Therefore, bread was a special type of inferior good, whose amount demanded change directly with change in its price.

- **Articles of Distinction**
  This exception to the law of demand is associated with the name of an American Economist, Veblen. Certain commodities are demanded just because they happen to be expensive or prestige goods. Thus, demand for articles of distinction like diamond and jewellery is more when their price is high.

- **Expectation regarding future price**
  There are many commodities whose prices are expected to go down or rise in the near future. If people expect a rise in price in the future, they will rush to purchase more of the commodity despite the increase in price. Similarly, when a consumer anticipates a further fall in future in the falling prices, they postpone their purchase to derive the benefit for the falling price later on.

- **Ignorance on the part of consumers about quality**
  It happens many times that consumer's judge the quality of the commodity from its price. A lower price product may be considered to be inferior and purchasers buy lesser amount of it.

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2.6 ELASTICITY OF DEMAND AND TYPES OF ELASTICITY OF DEMAND

MEANING OF ELASTICITY OF DEMAND

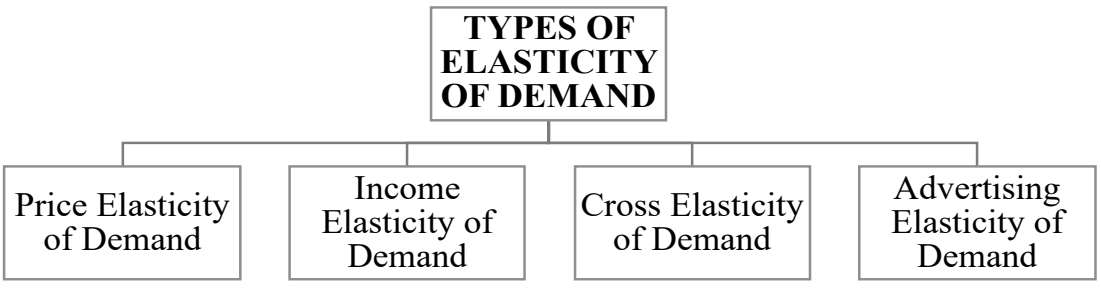
The term 'elasticity of demand' is used to denote a measure of the rate at which demand changes in response to the change in various factors. We can say that it is the percentage change in quantity demanded divided by the percentage in one of the variables on which demand depends. In other words, it is price elasticity of demand, which is usually referred to as elasticity of demand. In economics, the term elasticity means a proportionate (percentage) change in one variable relative to a proportionate (percentage) change in another variable. The quantity demanded of a good is affected by changes in the price of the good, changes in price of other goods, changes in income and changes in other factors. Elasticity is a measure of just how much of the quantity demanded will be affected due to a change in price or income. Elasticity of Demand is a technical term used by economists to describe the degree of responsiveness of the demand for a commodity due to a fall in its price. A fall in price leads to an increase in quantity demanded and vice versa.

For analytical purposes and practical decision-making, it is often necessary to know the degree of responsiveness of demand to each of the factors that may be influencing it as well as relative responsiveness of demand to one factor compared to another factor or a comparison of the relative responsiveness of demand for different goods to the same factor. The concept of elasticity of demand is a device to measure the responsiveness of the quantity demanded to change in any factor that may influence the demand for a commodity.

In principle, it be possible to use the concept of elasticity of demand to measure the responsiveness of quantity demanded to changes in any factor that may influence the demand for various goods are quantifiable and it is, therefore, possible to measure responsiveness of demand to changes in them, some other factors cannot be quantified and responsiveness of demand to changes in them cannot possibly be measured.

TYPES OF ELASTICITY OF DEMAND

There are various types of Elasticity of Demand. However, the important once are given below:



- **Price Elasticity of Demand**

  Price Elasticity of Demand expresses the response of quantity demanded of goods to a change in its price, given the consumers income, his taste and prices of all

other goods. According to Mrs. Robinsons, "The Elasticity of Demand at any price is the proportional change of amount purchased in response to a small change in price, divided by the proportional change in price."

Thus, price Elasticity of Demand is the ration of percentage change in amount demanded to a percentage change in price. It may be written as:

Price Elasticity (Ep) = % Change in Quantity Demanded / %Change in Price

- **Income Elasticity of Demand**
  Income Elasticity of Demand is defined as, "the percentage change in the quantity demanded of a good divided by the percentage change in the income of the consumer". It may be written as:

Y_{ED} = % Change in Quantity Demanded / %Change in Income

- **Cross Elasticity of Demand**
  A change in the demand for one good in response to a change in the price of another good represents cross elasticity of demand of the former good for the latter good. It is defined as:

X_{ED} = % Change in Quantity Demanded for one good (X)%)/ Change in Price of another Good (Y)

- **Advertising and Promotional Elasticity of Demand**
  The promotional elasticity of demand is a measure of the responsiveness of the demand for a commodity to the change in outlay on advertisement and other promotional efforts.

  Advertising and Promotional Elasticity=

A_{ED}= % Change in Quantity Demanded for one good (X)% / % Change in Advertising A

The greater the promotional elasticity, the more will be the incentive to go in for advertising. The advertisement elasticity of sales varies between zero to infinity.

CHECK YOUR PROGRESS

1. **Give the meaning of demand curve.**
2. **Explain any four factors which influence demand.**
3. **Explain the formula to calculate price elasticity of demand with suitable example.**
4. **What do you mean by advertising and promotional elasticity of demand? Explain with suitable example.**
5. **Explain the four types of elasticity of demand with suitable examples.**

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2.7 INTRODUCTION TO CONCEPT OF SUPPLY

By supply we mean the quantities of a commodity or service which a seller is willing and able to offer for sale at various prices during a given period of time. Thus, supply is always at a price and in relation to a period of time. The higher the price, the greater will be the quantity of a commodity that will be supplied by a producer and vice versa. Therefore, the relation between price and quantity supplied is direct and positive.

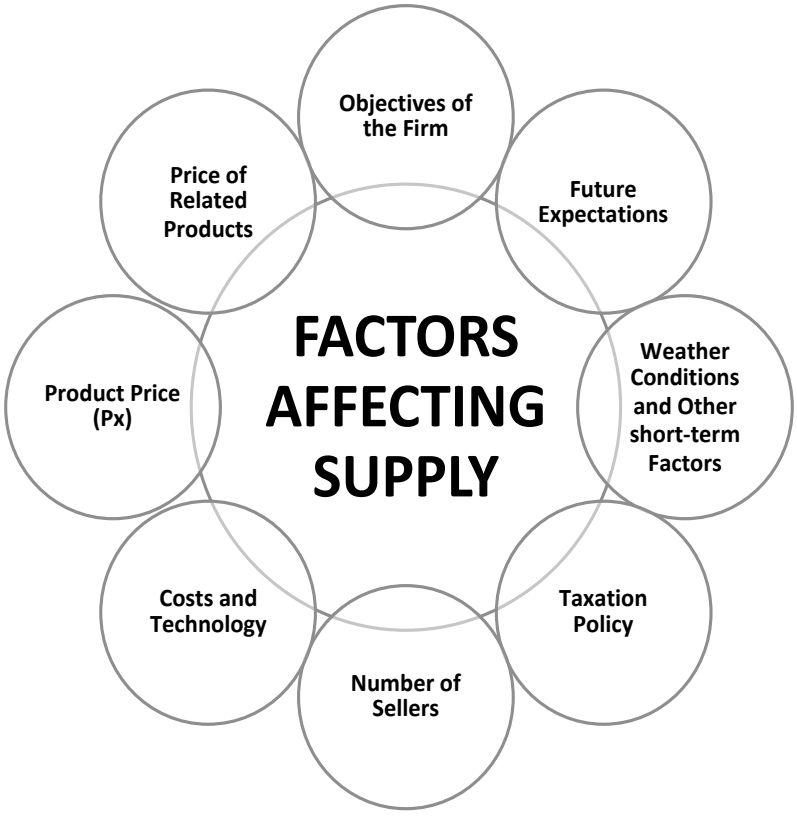
2.8 DEFINITION OF SUPPLY AND FACTORS AFFECTING SUPPLY

According to Meyers, "Supply means the amount offered for sale at a given price. We may define supply as a schedule of the amount of a good that would be offered for sale at all possible prices at any one instant of time, or during any one period of time, e.g., a day, a week and so on, in which the conditions of supply remain the same".

According to Murad, "Supply refers to the quantity of a commodity offered for sale at a given price, in a given market, at a given time".

According to McConnel, "Supply may be defined as a schedule which shows the various amounts of a product which a particular seller is willing and able to produce and make available for sale in the market at each specific price in a set of possible prices during a given period".

Following are the determinants of supply:



- **Product Price (Px)**
  The quantity supplied varies directly to price of the good, other factors held constant. Generally, producers tend to supply more at a higher price to earn greater profits. Higher revenues from the sales are necessary to induce producers to increase supply of good or vice-versa.

- **Price of Related Products (Py)**
  Prices of goods related in production influence firm's supply goods and services. For example, suppose the seller of pizza notice that the price of hot dog increases substantially. They may reduce the number of resources devoted to the selling of pizza in favour of hot dogs. This will decrease the supply of pizza. If the sellers were already selling two or more goods, the change in market conditions would prompt them to reallocate their resources towards the more profitable once.

- **Costs and Technology (C& T)**
  The two factors can be treated as one as they are closely related. Costs refer to the cost of factors used in the production. Increase in factor prices, other things remain constant, increases production cost that leads the firm to restrict supply. For example, an increase in cost of compressor will increase the price of a refrigerator.

  Technology refers to technological innovations introduced to reduce the cost of production or increase productivity. A reduction in total cost lowers the total cost curves which lead to increase in supply.

- **Objectives of the Firm (O)**
  Firms pursue different goals. The amount of a good or service supplied is influenced by the objective of the firm. For example, a sales maximizer would supply more that the profit maximizer to gain greater market share.

- **Future Expectations (F)**
  Like consumers' expectations influence their demands, sellers' expectations influence the supply. Future expectations of price, cost, sales and general macroeconomic conditions influence supply. For example, if a seller anticipates rise in price, they may choose to hold back current supply to take advantage of higher price in the future, thus decreasing the market supply.

- **Weather Conditions and Other short-term Factors (W)**
  Floods, draughts, strikes, lockouts and other short-term factors have adverse temporary impact on supply. Supply of geysers and room heaters tend to increase in winters, as they are few buyers in other months and carrying costs of inventory.

- **Number of Sellers (N)**
  The number of sellers has direct impact on supply. The more the sellers, greater is the market supply. If sellers are in collusion, they would tend to restrict the supply. Sellers under rivalry are most likely to increase the supply to capture larger market share.

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- **Taxation Policy (T)**
  Imposition of heavy taxes on a commodity discourages its production and as a result its supply diminishes, on the other hand, tax concessions of various kinds induce producers.

2.9 LAW OF SUPPLY AND SUPPLY CURVE

MEANING

This law establishes the relation between the price of commodity and its supply. According to this law, other things being equal, the supply of commodity increases with an increase in its price and decreases with a fall in price. The relation between price and supply is direct and positive. The law of supply is a basic principle in economics that asserts that, assuming all else being constant, an increase in the price of goods will result in a corresponding direct increase in the supply thereof. The law works similarly with a decrease in prices.

The law of supply depicts the producer's behavior when the price of a good rises or falls. With a rise in price, the tendency is to increase supply because there is now more profit to be earned. On the other hand, when prices fall, producers tend to decrease production due to the reduced economic opportunity for profit.

According to Dooley, "Higher the price the greater the quantity supplied or the lower the price, the smaller the quantity supplied". It can be written as

$Sn = f(Pn)$

ASSUMPTIONS OF THE LAW OF SUPPLY

The law of supply like the law of demand assumes other things remaining the same. It considers the following factors remaining constant to establish direct relation between the price and the quantity supplied.

- No change in the price of factors of production.
- No change in the price of related goods.
- No change in the goals of the firm.
- Producers do not expect any change in the price of the commodity in near future.
- No change in the state of technology.
- No change in the number of producers.
- No change in the government policy about taxation and subsidies.

SUPPLY CURVE

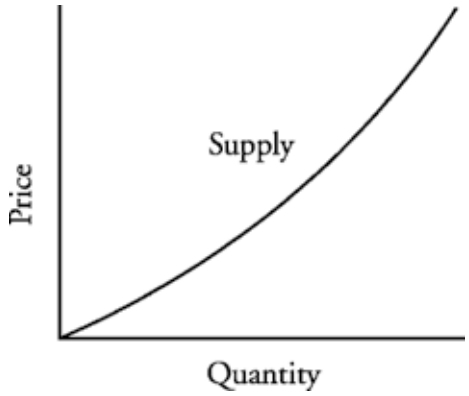
It is the relationship between price and supply curve. The curve is generally positively sloped. The curve depicts the relationship between two variables only; price and quantity supplied. All other factors affecting supply are held constant. However, these factors are

part of the supply equation and are implicitly present in the constant term. The supply curve is a graphic representation of the correlation between the cost of a good or service and the quantity supplied for a given period. In a typical illustration, the price will appear on the left vertical axis, while the quantity supplied will appear on the horizontal axis.

How a Supply Curve Works

The supply curve will move upward from left to right, which expresses the law of supply: As the price of a given commodity increases, the quantity supplied increases (all else being equal).

Note that this formulation implies that price is the independent variable, and quantity the dependent variable. In most disciplines, the independent variable appears on the horizontal or x-axis, but economics is an exception to this rule.



If a factor besides price or quantity changes, a new supply curve needs to be drawn. For example, say that some new soybean farmers enter the market, clearing forests and increasing the amount of land devoted to soybean cultivation. In this scenario, more soybeans will be produced even if the price remains the same, meaning that the supply curve itself shifts to the right (S2) in the graph below. In other words, supply will increase.

Effects on Supply Curve

We are now aware of the various determinants of supply curves. An alteration of any of these factors has effects on the supply curve. We classified the determinants of supply into two categories- price and factors other than price.

Interestingly, the incidence of the alterations in determinants of supply is also categorized into two. The changes in price and factors other than price have varying consequences on the curve. These are classified as the movement along the supply curve and shift in the supply curve.

Movement along the Supply Curve

When the price of a commodity changes, other factors kept constant, the quantity supplied of a commodity changes suitably. This is because of the direct relationship between the two. This is known as a change in quantity supplied. Graphically it causes movement along the supply curve. A change in price either causes supply curves to expand or contract.

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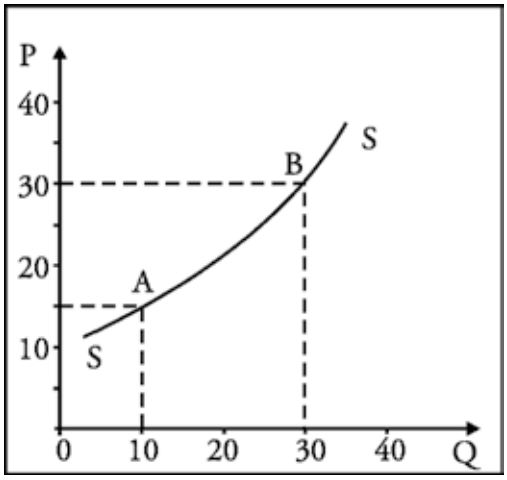
If the prices increase, other factors kept constant, there is an increase in the quantity supplied which is referred to as an expansion in supply. Graphically, this is represented as an upward movement along the same supply curve.

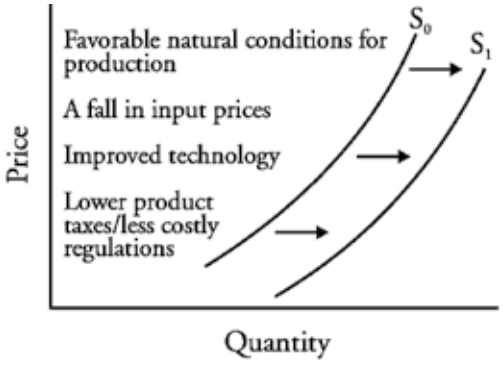
Conversely, if the prices decrease, keeping other factors constant, firms tend to decrease the supply. This is referred to as a contraction in supply. Graphically, this is represented as a downward movement along the same supply curve.



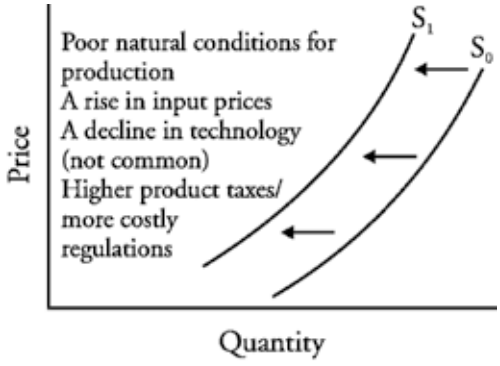
Shifting of the Supply Curve

The factors other than price affect the supply curve in a different manner. These factors cause the supply curve to shift. Of course, this shift is also categorized into two which are- a leftward and rightward shift.

Note that, this shift occurs because the price is constant when studying the effect of other factors on supply. A rightward shift indicates a positive effect on the curve whereas a leftward shift indicates a negative effect on the supply curve. We have already studied the various factors other than price and their relationship with the supply of a commodity. The factors can either have a direct or an inverse relationship with the quantity of commodity supplied.



(a) Factors that increase supply



(a) Factors that decrease supply

Direct Relationship with supply

Factors like the state of technology have a direct relationship with the supply. In other words, the change in such factors and supply occurs in the same direction. As a result, an increase in such factors leads to a shift in the rightward direction. Conversely, a decrease in such factors causes the curve to shift towards left.

Inverse Relationship with supply

Factors like the price of other goods tend to be in an inverse relationship with the supply of a commodity. Simply put, a change in such factors and supply occurs in opposite direction. A negative change in such factors induces a positive change in supply and vice versa. In effect, an increase in such factors leads to a shift in leftward direction. However, a decrease of such factors causes the supply curve to shift towards the right.

2.10 MARKET STRUCTURE AND THE SUPPLY CURVE

The equilibrium price and equilibrium quantity occur where the supply and demand curves cross. The equilibrium occurs where the quantity demanded is equal to the quantity supplied. If the price is below the equilibrium level, then the quantity demanded will exceed the quantity supplied. Excess demand or a shortage will exist. If the price is above the equilibrium level, then the quantity supplied will exceed the quantity demanded. Excess supply or a surplus will exist. In either case, economic pressures will push the price toward the equilibrium level.

Market equilibrium, or balance between supply and demand

Supply and demand are equated in a free market through the price mechanism. If buyers wish to purchase more of a good than is available at the prevailing price, they will tend to bid the price up. If they wish to purchase less than is available at the prevailing price, suppliers will bid prices down. The price mechanism thus determines what quantities of goods are to be produced. The price mechanism also determines which goods are to be produced, how the goods are to be produced, and who will get the goods—i.e., how the goods will be distributed. Goods so produced and distributed may be consumer items, services, labour, or other saleable commodities. In each case, an increase in demand will lead to the price being bid up, which will induce producers to supply more; a decrease in demand will lead to the price being bid down, which will induce producers to supply less. The price system thus provides a simple scale by which competing demands may be weighed by every consumer or producer.

The tendency to move toward the equilibrium price is known as the market mechanism, and the resulting balance between supply and demand is called a market equilibrium.

Supply Function in a Perfectly Competitive Market

In a free market, the cost curves find the optimal production point. This is the point where costs are minimized, and profits maximized. Individual firms' supply curves are positively sloped. Thus, an increase in price causes an increase in supply. In this case, the supplied

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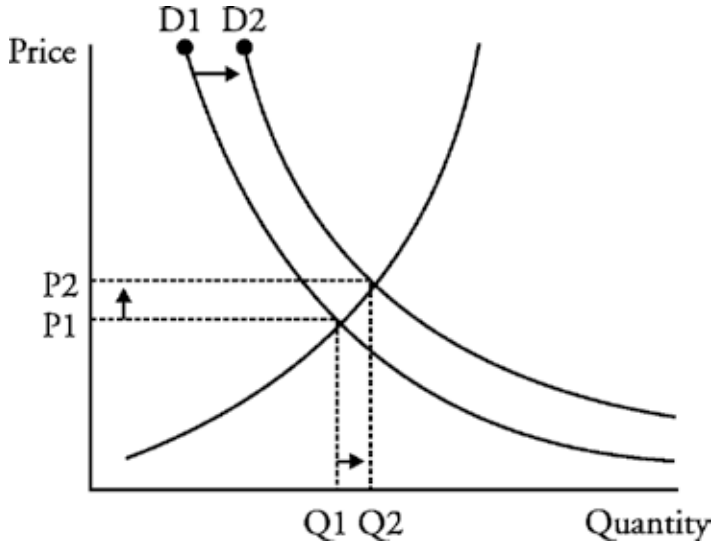
quantity is dependent on the market prices, while the price is dependent on the quantity available in the market.



As demand rises from D1 to D2, the quantity supplied rises from Q1 to Q2, and the price also rises from P1 to P2.

Example of Supply Function in a Perfectly Competitive Market
Assume that the supply function of a product is given by:

Qs=20+10P

Where Qs= quantity supplied, and P=Price

Calculate the quantity supplied if the price of the product is currently Rs.10.

Solution
Using the function Qs=20+10P, substitute P=10 so that the quantity supplied is:

Qs=20+10×10=120 units

Supply Function Under Monopoly Markets
The supply function of a monopoly is purely based on the cost structure of the firm. However, it is important to note that a monopoly does not have a purely defined supply function.

- For a competitive firm: P = MR = MC.
- However, for a monopoly firm: P > MR = MC.

Thus, the optimal output level and price are not determined by any supply curve. Here, the optimal output is based on the output levels that maximize profits. In a monopoly market, profit is maximized when marginal revenue equals marginal cost, i.e., MR=MC.

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Supply Function Under Oligopoly Market

The supply function of oligopolies is also not well-defined. Therefore, the optimal points of an oligopoly cannot be determined without including demand conditions. The strategies of competitors need to be considered.

However, the cost function is useful in determining the optimal supply level. In this case, it still holds that at the optimal points, MR = MC. If a dominant firm exists, it becomes the price maker while the remaining firms are all price takers.

Example of Supply Function in an Oligopoly Market

Let:

M = price maker

T = price taker

The price maker first identifies its profit-maximizing output MRM=MCM with an output QM. Its price will depend on its portion of the total demand DM. When the price is PM, the price maker will supply QM of the total demand QT. The price takers will, therefore, supply QT□QM=QF.

From the above example, we can conclude that no single function can determine the quantity supplied.

Supply Function for a Monopolistically Competitive Market

In this market structure, the supply function is also not well-defined. The appropriate output level is determined by the point where the Marginal Cost and Marginal Revenue curves intersect (MC=MR).

However, it is important to note that the price will be charged in accordance with the demand schedule of the market. The supply curve of a firm should measure the quantity that the firm is willing and able to supply at different price levels. Unfortunately, the marginal revenue and marginal cost do not include this information.

2.11 CHAPTER SUMMARY

The quantity demanded is the amount of a good that a buyer is (buyers are) willing and able to purchase during a specified period of time. Quantity demanded refers to a particular number of units.

A change in the quantity demanded is the change in the quantity of the good that a buyer is (buyers are) willing and able to purchase. This is a change in the number of units. The quantity demanded by a consumer will depend upon the following factors:

- The good's own price.
- The consumer's income.
- The prices of related goods.

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- The tastes and preferences of the consumer.
- Expectations and other special influences (e.g., weather).

A demand schedule is a table representation of the relationship between the price of a good and the quantity demanded other things equal. A demand curve is a graphical representation of the relationship between the price of a good and the quantity demanded, ceteris paribus.

The law of demand states that there is an inverse or negative relationship between a good's price and the quantity demanded other things constant. The law of demand is reflected in demand curves being downward sloping. This has the following implications:

- When the price of a good rises, the quantity demanded falls, other things equal.
- When the price of a good falls, the quantity demanded increases, other things equal.

In summary, demand is the relationship between the price of a good or service and the quantity demanded, other things held constant.

Market demand is the relationship between the price of a good or service and the quantity demanded by all buyers in the market, ceteris paribus. The market demand curve is obtained by horizontally summing the demand curves for all buyers in the market. An implication is that an increase in the number of buyers, ceteris paribus, will result in an increase in demand.

The law of supply is a fundamental principle of economic theory which states that, keeping other factors constant, an increase in price results in an increase in quantity supplied. In other words, there is a direct relationship between price and quantity: quantities respond in the same direction as price changes.

Law of supply also states that other factors remaining constant, price and quantity supplied of a good are directly related to each other. In other words, when the price paid by buyers for a good rise, then suppliers increase the supply of that good in the market.

Law of supply depicts the producer behaviour at the time of changes in the prices of goods and services. When the price of a good rises, the supplier increases a profit because of higher prices.

2.12 REVIEW QUESTIONS

SHORT ANSWER TYPE QUESTIONS

1. **What is the Basic Law of Supply and Law of demand?**
2. **Explain the Concept of Supply Increase and Supply Decrease.**
3. **What are the Factors affecting demand and supply?**
4. **How is market structure and supply curve associated?**
5. **What are the assumptions of supply curve?**

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LONG ANSWER TYPE QUESTIONS

1. **Why is the Law of Supply Important?**
2. **Explain Law of demand in detail. What are its exceptions?**
3. **How the supply curve works?**
4. **Explain Supply Function in a Perfectly Competitive Market.**
5. **Explain Supply Function Under Monopoly Markets.**

2.13 MULTIPLE CHOICE QUESTIONS

1. **Income Elasticity of Demand is defined as the percentage change in the quantity demanded of a good divided by the percentage change in the_____.**
   a. Price of the good
   b. income of the consumer
   c. income of the seller
   d. None of the above
2. **The _____ will be aggregate demand for the product for all the segments while _____ would refer to demand for the product in that specific market segment.**
   a. Direct demand, Indirect demand
   b. Joint Demand and Composite demand
   c. total market demand, market segment demand
   d. None of the above
3. **_____ function is a function that describe how much of a commodity will be purchased at the prevailing prices of that commodity.**
   a. Supply
   b. Elasticity
   c. Demand
   d. None of the above
4. **There are factors on which the demand for a commodity depends. They include:_____**
   a. Price of the Commodity
   b. Income of the seller
   c. Choice of the seller
   d. Prices of unrelated goods
5. **A _____is a table representation of the relationship between the price of a good and the quantity demanded other things equal.**
   a. Supply schedule
   b. Demand curve

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c. Demand schedule

d. None of the above

6. **_____ leads to an increase in the supply of a commodity without a change in its price.**

a. Rise in supply

b. Contraction in supply

c. Expansion in supply

d. Fall in supply

7. **Because of increasing marginal costs, most supply curves _____.**

a. Have a negative slope

b. Have a positive slope

c. Are horizontal

d. Are vertical

8. **Which of the following metrics is not a constant factor while moving upwards along the supply curve?**

a. The price of the commodity

b. The number of sellers

c. Expected future prices

d. Cost of the resources used for producing that commodity

9. **The supply of a good refers to:**

a. Stock available for sale

b. Total stock in the warehouse

c. Actual Production of the good

d. Quantity of the good offered for sale at a particular price per unit of time

10. **Factors like the price of other goods tend to be in an _____ relationship with the supply of a commodity.**

a. direct

b. indirect

c. inverse

d. None of the above

♦♦♦♦♦

UNIT III

PRODUCTION AND MARKET STRUCTURE

STRUCTURE

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3.1 LEARNING OBJECTIVE

After reading this lesson, you will be able to:

- Understand the Concept of Cost
- Understand the Concept of Revenue
- Understand the types of Costs and Revenues
- Understand the Theory of Production
- Understand the Production function
- Explain the Law of Variable Proportions
- Describe how a perfect competitor makes the decision to stay in business or to go out of business.
- Understand the characteristics of monopoly.
- Understand the difference between marginal revenue for a perfect competitor and marginal revenue for a pure monopoly.

3.1 INTRODUCTION AND DEFINITION OF COST

Cost is defined as those expenses faced by a business in the process of supplying goods and services to the consumer. In economics, the cost of production is the value that the price of an object or condition is determined by the sum of the cost of the resources that went into making it. The cost can compose any of the factors of production and taxation.

According to Campbell, "Production costs are those which must be received by the resource owners in order to assume that they will continue to supply them in a particular time of production".

According to Gulhrie and Wallace, "Cost of production has a specific meaning. It is all of the payments or expenditures necessary to obtain the factors of production of land, labour, capital and management required to produce the commodity. It represents money costs which we want to incur in order to acquire the factors of production".

3.2 TYPES AND DETERMINANTS OF COSTS

There are various concepts of cost that firm considers relevant under various circumstances. To make better business decisions, it is necessary to know the fundamental differences between the uses of the main concepts of cost.

Business Costs and Full Costs	Opportunity Cost and Actual Cost	Explicit and Implicit or Imputed Costs	Out-of-Pocket and Book Costs
Fixed and Variable Costs	Direct and Indirect Costs (Traceable and Common Costs)	Total, Average and Marginal Costs	Short-Run and Long-Run Costs

Incremental Costs and Sunk Costs	Historical and Replacement Costs	Private and Social Costs	Urgent and Postponable Cost
	Escapable and Unavoidable Costs	Controllable and Non-Controllable Costs	

- **Opportunity Cost and Actual Cost**

  Opportunity cost refers to the loss of earnings due to opportunities foregone due to scarcity of resources. If resources were unlimited, there would be no need to forego any income-yielding opportunity and, therefore, there would be no opportunity cost. Resources are scarce but have alternative uses with different returns. Incomes maximizing resource owners put their scarce resources to their most productive use and forego the income expected from the second best use of the resources.

  Therefore, the opportunity cost may be defined as the expected returns from the second best use of the resources foregone due to the scarcity of resources. The opportunity cost it is also called Alternative cost. For example, suppose that a person has a sum of Rs. 1,00,000 for which he has only two alternative uses. He can buy either a printing machine or, alternatively, a lathe machine. From printing machine, he expects an annual income of Rs. 20,000 and from the lathe, Rs. 15,000.

  If he is a profit maximizing investor, he would invest his money in printing machine and forego the expected income from the lathe. The opportunity cost of his income from printing machine is the expected income from the lathe, i.e., Rs. 15,000.

  The opportunity cost arises because of the foregone opportunities. Thus, the opportunity cost of using resources in printing business, the best alternative is the expected return from the lathe, the second best alternative. In assessing the alternative cost, both explicit and implicit costs are taken into account.

  Associated with the concept of opportunity cost is the concept of economic rent or economic profit. For example, economic rent of the printing machine is the excess of its earning over the income expected from the lathe (i.e., Rs. 20,000 - Rs. 15,000 = Rs. 5,000).

  The implication of this concept for business man is that investing in printing machine is preferable so long as its economic rent is greater than zero. Also, if firms know the economic rent of the various alternative uses of their resources, it will be helpful in the choice of the best investment avenue.

  On the other hand, actual costs are those which are actually incurred by the firm in payment for labour, material, plant, building, machinery, equipment, travelling and transport, advertisement, etc. The total money expenses, recorded in the books of accounts are, for all practical purposes, the actual costs. Actual cost comes under the accounting concept.

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- **Business Costs and Full Costs**

  Business costs include all the expenses which are incurred to carry our business. The concept of business costs is similar to the actual or real costs. Business costs "include all the payments and contractual obligations made by the firm together with the book cost of depreciation on plant and equipment".

  These cost concepts are used for calculating business profits and losses and for filling returns for income-tax and also for other legal purposes.

  Full costs, on the contrary, include business costs, opportunity cost and normal profit. The opportunity cost includes the expected earnings from the second best use of the resources, or the market rate of interest on the total money capital, and also the value of entrepreneur's own services which are not charged for in the current business. Normal profit is a necessary minimum earning in addition to the opportunity cost, which a firm must get to remain in its present occupation.

- **Explicit and Implicit or Imputed Costs**

  Explicit costs refer to those which fall under actual or business costs entered in the books of accounts. The payments for wages and salaries, materials, license fee, insurance premium, depreciation charges are the examples of explicit costs. These costs involve cash payments and are recorded in normal accounting practices.

  In contrast with these costs, there are not certain other costs which do not take the form of cash outlays, nor do they appear in the accounting system. Such costs are known as implicit or imputed costs. Implicit costs may be defined as the earning expected from the second best alternative use of resources. For instance, suppose an entrepreneur does not utilize his services in his own business and works as a manager in some other firm on a salary basis.

  If he starts his own business, he foregoes his salary as manager. This loss of salary is the opportunity costs of income from one's own business. This is an implicit cost of his own business; implicit, because the entrepreneur suffers the loss, but does not charge it as the explicit cost of his own business. Thus, implicit wages, rent and interest are the highest wages, rents and interest which owner's labour, building and capital can respectively earn from their second best use.

  Implicit costs are not taken into account while calculating the loss or gains of the business, but they form an important consideration in whether or not a factor would remain in its present occupation. The explicit and implicit costs together make the economic cost.

- **Out-of-Pocket and Book Costs**

  Out-of-pocket costs means costs that involve current cash payments to outsiders while book costs such as depreciation do not require current cash payments. In concept, this distinction is quite different from traceability and also from variability with output. Not all out-of- pocket costs are variable, e.g., salaries paid to the administrative staff.

Neither are they all direct, e.g., the electric power bill. Book costs are in some cases variable and in some cases readily traceable, and hence become a part of direct costs. The distinction primarily shows how cost affects the cash position. Book costs can be converted into out-of-pocket costs by selling the assets and having them on hire. Rent would then replace depreciation and interest.

While undertaking expansion, book costs do not come into the picture until the assets are purchased. Yet the question to be answered is: What will be the gross earnings of the investment during its life time and do they justify the outlay? Transfer of old equipment to new areas will bring book costs into the picture.

- **Fixed and Variable Costs**

Fixed costs are those costs which are fixed in volume for a certain given output. Fixed cost does not vary with variation in the output between zero and certain level of output. The costs that do not vary for a certain level of output are known as fixed cost.

The fixed costs include:

a. Cost of managerial and administrative staff.

b. Depreciation of machinery, building and other Axed assets, and

c. Maintenance of land, etc. The concept of fixed cost is associated with short-run.

Variable costs are those which vary with the variation in the total output. They are a function of output. Variable costs include cost of raw materials, running cost on fixed capital, such as fuel, repairs, routine maintenance expenditure, direct labour charges associated with the level of output, and the costs of all other inputs that vary with output.

- **Total, Average and Marginal Costs**

Total cost represents the value of the total resource requirement for the production of goods and services. It refers to the total outlays of money expenditure, both explicit and implicit, on the resources used to produce a given level of output. It includes both fixed and variable costs.

Average cost:

Average cost (AC) is of statistical nature, it is not actual cost. It is obtained by dividing the total cost (TC) by the total output (Q), i.e.

AC = TC / Q = average cost

Marginal cost:

Marginal cost is the addition to the total cost on account of producing an additional unit of the product. Or, marginal cost is the cost of marginal unit produced. Given the cost function, it may be defined as

MC = TC/ Q

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These cost concepts are discussed in detail in the following section. Total, average and marginal cost concepts are used in economic analysis of firm's production activities.

- **Short-Run and Long-Run Costs**
  Short-run and long-run cost concepts are related to variable and fixed costs respectively, and often marked in economic analysis interchangeably. Short-run costs are the costs which vary with the variation in output, the size of the firm remaining the same. In other words, short-run costs are the same as variable costs. Long-run costs, on the other hand, are the costs which are incurred on the fixed assets like plant, building, machinery, etc. Such costs have long-run implication in the sense that these are not used up in the single batch of production.

  Long-run costs are, by implication, the same as fixed costs. In the long-run, however, even the fixed costs become variable costs as the size of the firm or scale of production increases. Broadly speaking, 'the short-run costs are those associated with variables in the utilization of fixed plant or other facilities whereas long-run costs are associated with the changes in the size and kind of plant.

- **Incremental Costs and Sunk Costs**
  Incremental costs are closely related to the concept of marginal cost but with a relatively wider connotation. While marginal cost refers to the cost of the marginal unit of output, incremental cost refers to the total additional cost associated with the marginal batch of output.

  The concept of incremental cost is based on the fact that in the real world, it is not practicable for lack of perfect divisibility of inputs to employ factors for each unit of output separately. Besides, in the long run, firms expand their production; hire more men, materials, machinery and equipments.

  The expenditures of this nature are incremental costs and not the marginal cost (as defined earlier). Incremental costs arise also owing to the change in product lines, addition or introduction of a new product, replacement of worn out plant and machinery, replacement of old technique of production with a new one, etc.

  The Sunk costs are those which cannot be altered, increased or decreased, by varying the rate of output. For example, once it is decided to make incremental investment expenditure and the funds are allocated and spent, all the preceding costs are considered to be the sunk costs since they accord to the prior commitment and cannot be revised or reversed or recovered when there is change in market conditions or change in business decisions.

- **Historical and Replacement Costs**
  Historical costs are those costs of an asset acquired in the past whereas replacement cost refers to the outlay which has to be made for replacing an old asset. These concepts own their significance to unstable nature of price behaviour.

Stable prices over time, other things given, keep historical and replacement costs on par with each other. Instability in asset prices makes the two costs differ from each other.

Historical cost of assets is used for accounting purposes, in the assessment of net worth the firm.

Replacement cost is a term referring to the amount of money a business must currently spend to replace an essential asset like a real estate property, an investment security, a lien, or another item, with one of the same or higher value. Sometimes referred to as a "replacement value," a replacement cost may fluctuate, depending on factors such as the market value of components used to reconstruct or repurchase the asset and the expenses involved in preparing assets for use.

- **Private and Social Costs**

There are not certain other costs which arise due to functioning of the firm but are not normally marked in the business decisions nor does are such cost explicitly borne by the firms. The costs of this category are borne by the society.

Thus, the total cost generated by a firm's working may be divided into two categories:

a. Those paid out or provided for by the firms, and
b. Those not paid or borne by the firms- it includes use of resource freely available plus the disutility created in the process of production.

The costs of the former category are known as private costs and of the latter category are known as external or social costs. The example of social cost are: Mathura Oil Refinery discharging its wastage in the Yamuna river causes water pollution; Mills and factories located in a city cause air pollution by emitting smoke.

Similarly, plying cars, buses, tracks, etc., cause both air and noise pollution. Such pollutions cause tremendous health hazards which involve health cost to the society as a whole. Such costs are termed external costs from the firm's point of view and social cost from society's point of view.

The relevance of the social costs lies in understanding the overall impact of firm's working on the society as a whole and in working out the social cost of private gains. A further distinction between private costs and social costs is therefore in order.

Private costs are those which are actually incurred or provided for by an individual or a firm on the purchase of goods and services from the market. For a firm, all the actual costs both explicit and implicit are private costs. Private costs are internalized costs that are incorporated in the firm's total cost of production.

Social costs on the other hand, refer to the total cost to the society on account of production of a commodity. Social costs include both private cost and the external cost.

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Social costs include:

a. The cost of resources for which the firm is not compelled to pay a price, i.e., atmosphere, rivers, lakes, and also for the use of public utility services like roadways, chainage system, etc., and

b. The cost in the form of disutility created through air, water and noise pollutions, etc. The costs of category.

c. Generally assumed to equal the total private and public expenditures are incurred to safeguard the individual and public interest against the various kinds of health hazards created by the production system.

The private and public expenditure, however, serve only as an indicator of 'public disutility', they do not give the exact measure of the public disutility or the social costs.

- **Urgent and Postponable Cost**

Urgent costs are those costs which must be incurred in order to continue operations of the firm. For example, the costs of materials and labour which must be incurred if production is to take place.

Postponable costs refer to those costs which can be postponed at least for some time c.g., maintenance relating to building and machinery. Railways usually make use of this distinction. They know that the maintenance of rolling stock and permanent way can be postponed for some time.

Therefore, their maintenance expenditure is incurred mainly in periods of slack activity when the rolling stock is comparatively idle. During World War II most maintenance was virtually postponed due to the rush of work in railways as also in other factories. Such postponement of maintenance expenditure tends to create employment during periods of slack activity and thus serves as an anti-cyclical measure.

- **Escapable and Unavoidable Costs**

Escapable costs refer to costs which can be reduced due to a contraction in the activities of a business enterprise. It is the net effect on costs that is important, not just the costs directly avoidable by the contraction. And the difficult problem is estimating these indirect effects rather than directly Escapable costs.

For Example:

a. Closing apparently unprofitable branch house-storage costs of other branches and transportation charges would increase.

b. Reducing credit sales-costs estimated may be less than the benefits otherwise available.

Escapable costs are different from controllable and discretionary costs. The latter are like chopping off the additional fat and are not directly associated with a special curtailment decision.

- **Controllable and Non-Controllable Costs**
  The concept of responsibility accounting leads directly to the classification of cost as controllable or uncontrollable. The controllability of a cost depends upon the levels of responsibility under consideration. A controllable cost may refer to one which is reasonably subject to regulation by the executive with whose responsibility that cost is being identified. Thus a cost which is uncontrollable at one level of responsibility may be regarded as controllable at some other, usually higher level.

  The control- liability of certain cost may be shared by two or more executives. For example, materials cost where price paid is the responsibility of the purchasing department and the usage is the responsibility of the production supervisor. This distinction is primarily useful for expense and efficiency control.

  Direct material and direct labour costs are usually controllable. Regarding so for, overhead costs, some costs are controllable and others are not. Indirect labour, supplies and electricity are usually controllable. An allocated cost is not controllable. It varies with the formula adopted for allocation and is independent of the actions of the supervisor.

- **Direct and Indirect Costs (Traceable and Common Costs)**
  A direct or traceable cost is that which can be identified easily and indisputably with a unit of operation (costing unit/cost centre). Common or indirect costs are those that are not traceable to any plant, department or operation, or to any individual final product. Intake an example, the salary of a divisional manager, when division is a costing unit, will be a Direct Cost.

  The salary of the manager of the other division is neither a direct nor an indirect cost. Thus, whether a specific cost is direct or indirect depends upon the costing unit under consideration. The concepts of direct and indirect costs are meaning-less without identification of the relevant costing unit.

DETERMINANTS OF COST

The following are the determinants of cost:

- **Law of Returns Operating:** An important determinant of cost is the law of returns operating. In the law of diminishing returns, the cost will show a tendency to rise; the reverse will be the case when the law of increasing returns operates.
- **Size of the Plant:** Cost is also influenced by the size of the plant. With a bigger size, although, the initial fixed costs are high, variable costs tend to be low compared to a small sized plant.
- **Period:** Cost behaviour is affected by the period under consideration. If we consider a short period, then the cost will rise speedily but in case of long period, cost would not increase that speedily. In fact, a long-term cost curve is an envelope curve of several short-run cost curves.

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- **Capacity Utilization:** Cost is also affected by the level of capacity utilization. Especially this is the per unit fixed cost which makes a big difference; with higher capacity utilization fixed cost per unit of output is bound to be low.
- **Prices of Factors of Production:** The cost of product is affected by the prices of factors of production but the impact of the price of a given factor would depend upon the contribution which that factor of production makes to the total products; in other words, the relationship of the value of a given input to the total cost of the product.
- **Technology:** Technology has also a big influence on the cost of a product. In fact, most technological innovations aim at reducing cost.
- **Efficiency in the Use of Inputs:** Cost is also affected by efficiency in the use of inputs as well as choice of relatively cheaper inputs which are equally efficient so far as the product quality is concerned.
- **Lot size of the Product:** Cost is also affected by the lot size of the product. If it is possible to process a bigger lot at one time, the total cost of operation and thereby the unit cost will be lower compared with a process in which only smaller lot sizes are produced.
- **Output is stable and constant:** Overall costs are generally lower where output is stable and constant over a period of time. Production by sudden breaks and disruption is bound to be costly.
- **Cost output relationship:** The theory of cost deals with the behaviour of cost in relation to a change in output. The basic principle of the cost behaviour is that the total cost increases with increase in output. A cost function is a statement of technological relationship between the cost and output. The cost-output relationship is observed in the short-run as well as in the long-run. The short-run cost function states cost-output relationship under a given I scale of output in the short ran. The long-run cost function states cost-output relationship with changing scale of output in the long run.

SHORT-TERM COST-OUTPUT RELATIONS

The short-run is normally defined as a time period over which some factors of production are fixed and others are variable. Thus, a firm incurs some costs that are associated with variable factors and others that result from fixed factors. The former are called variable costs and the later represent fixed costs. Variable costs changes with changes in level of output and can be expressed as a function of output. Fixed costs are not a function of the level of outputs and are constant in the short run.

COST CONCEPT

The basic cost concepts used in the analysis of cost behaviour are as follows:

Total Cost (TC)

It is defined as the actual cost that must be incurred to produce given quantity of output. It is the total cost of production derived by aggregating total fixed cost (TFC) and total variable cost (TVC). Thus,

TC = TFC + TVC

Total Fixed Cost (TFC)
It is the cost pertaining to all fixed inputs (i.e. cost of plant, building, etc.) at any given level of output.

Total Variable Cost (TVC)
It is the cost pertaining to all variable inputs (i.e. cost raw material, direct labour, etc.) at any given level of output.

3.4 MEANING OF REVENUE AND RELATION BETWEEN AR AND MR CURVES

The amount of money that a producer receives in exchange for the sale proceeds is known as revenue. For example, if a Turn gets Rs. 16,000 from sale of 100 chairs, then the amount of Rs. 16,000 is known as revenue. Revenue refers to the amount received by a firm from the sale of a given quantity of a commodity in the market. Revenue is a very important concept in economic analysis. It is directly influenced by sales level, i.e., as sales increases, revenue also increases.

CONCEPT OF REVENUE
The concept of revenue consists of three important terms; Total Revenue, Average Revenue and Marginal Revenue.

Total Revenue (TR)
Total Revenue refers to total receipts from the sale of a given quantity of a commodity. It is the total income of a firm. Total revenue is obtained by multiplying the quantity of the commodity sold with the price of the commodity.

Total Revenue = Quantity x Price

For example, if a firm sells 10 chairs at a price of Rs. 160 per chair, then the total revenue will be: 10 Chairs x Rs. 160 = Rs 1,600

Average Revenue (AR)
Average revenue refers to revenue per unit of output sold. It is obtained by dividing the total revenue by the number of units sold.

Average Revenue = Total Revenue/Quantity

For example, if total revenue from the sale of 10 chairs @ Rs. 160 per chair is Rs. 1,600, then:

Average Revenue = Total Revenue/Quantity = 1,600/10 = Rs 160

AR and Price are the Same.

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We know, AR is equal to per unit sale receipts and price is always per unit. Since sellers receive revenue according to price, price and AR arc one and the same thing.

This can be explained as under:

TR = Quantity x Price ... …..(1)

AR = TR/Quantity ……. (2)

Putting the value of TR from equation (1) in equation (2), we get

AR = Quantity x Price / Quantity

AR = Price

AR Curve and Demand Curve are the same

A buyer's demand curve graphically represents the quantities demanded by a buyer at various prices. In other words, it shows the various levels of average revenue at which different quantities of the good are sold by the seller. Therefore, in economics, it is customary to refer AR curve as the Demand Curve of a firm.

Marginal Revenue (MR)

Marginal revenue is the additional revenue generated from the sale of an additional unit of output. It is the change in TR from sale of one more unit of a commodity.

$MR_n = TR_n - TR_{n-1}$

Where:

MR_n = Marginal revenue of nth unit;

TR_n = Total revenue from n units;

Where, TR_{n-1} = Total revenue from (n-1) units;

n = number of units sold

For example, if the total revenue realised from sale of 10 chairs is Rs. 1,600 and that from sale of 11 chairs is Rs. 1,780, then MR of the 11^{th} chair will be:

$MR_n = TR_n - TR_{n-1}$

MR_n = Rs. 1,780 - Rs. 1,600 = Rs. 180

One More way to Calculate MR:

We know, MR is the change in TR when one more unit is sold. However, when change in units sold is more than one, then MR can also be calculated as:

MR Change in Total Revenue/ Change in number of units = $\frac{\Delta TR}{\Delta Q}$

Let us understand this with the help of an example: If the total revenue realised from sale of 10 chairs is Rs. 1,600 and that from sale of 14 chairs is Rs. 2,200, then the marginal revenue will be:

MR= (TR of 14 chairs - TR of 10 chairs) / 14 chairs -10 chairs

= 600/4 = Rs. 150

TR is summation of MR:

Total Revenue can also be calculated as the sum of marginal revenues of all the units sold.

It means, $TR_n = MR_1 + MR_2 + MR_3 + \ldots\ldots + MR_n$

or, $TR = \sum MR$

RELATION BETWEEN AR AND MR CURVES

The relation between average revenue and marginal revenue can be discussed under pure competition, monopoly or monopolistic competition or imperfect competition.

Under Pure Competition				Under Monopoly			
Q	AR (=P)	TR	MR	Q	AR (=P)	TR	MR
	Rs	Rs	Rs		Rs	Rs	Rs
1	20	20	20	1	20	20	20
2	20	40	20	2	18	36	16
3	20	60	20	3	16	48	12
4	20	80	20	4	14	56	8
5	20	100	20	5	12	60	4
6	20	120	20	6	10	60	0
				7	8	56	-4

(1) Under Pure Competition:

The average revenue curve is a horizontal straight line parallel to the X-axis and the marginal revenue curve coincides with it. This is because under pure (or perfect) competition the number of firms selling an identical product is very large.

The price is determined by the market forces of supply and demand so that only one price tends to prevail for the whole industry, as shown in Table 1. It is OP, as shown in Panel (A) of Figure 1. Each firm can sell as much as it wishes at the market price OP.

Thus the demand for the firm's product becomes infinitely elastic. Since the demand curve is the firm's average revenue curve, the shape of the AR curve is horizontal to the X-axis at price OP, as shown in Panel (B) and the MR curve coincides with it. This is also shown in Table 1 where AR and MR remain constant at Rs.20 at every level of output. Any change

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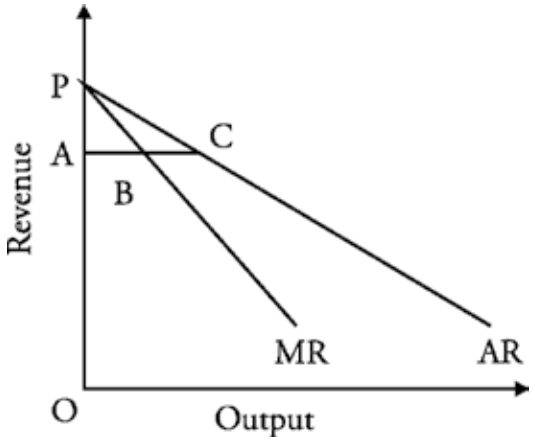
in the demand and supply conditions will change the market price of the product, and consequently the horizontal AR curve of the firm.

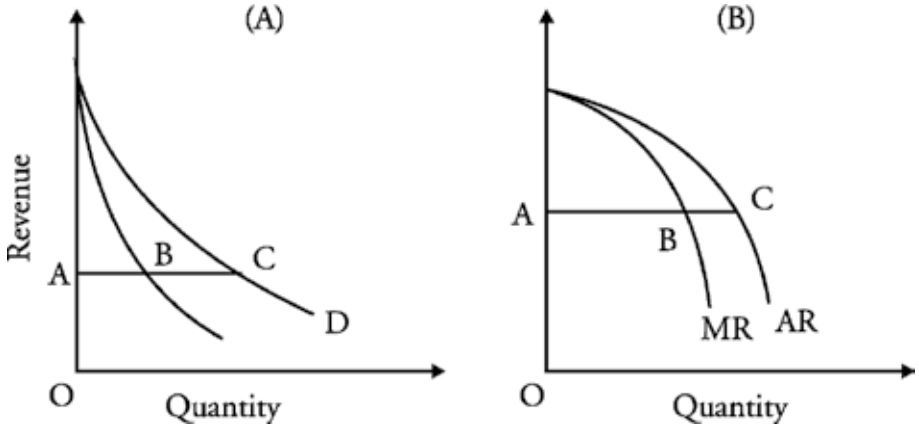
(2) Under Monopoly or Imperfect Competition:

The average revenue curve is the downward sloping industry demand curve and its corresponding marginal revenue curve lies below it. The relation between the average revenue and the marginal revenue under monopoly can be understood with the help of Table 2.

The marginal revenue is lower than the average revenue. Given the demand for his product, the monopolist can increase his sales by lowering the price, marginal revenue also falls but the rate of fall in marginal revenue is greater than that in average revenue in Table 2 AR falls by Rs.2 at a time, whereas MR falls by Rs.4.



This is shown in Figure 2 in which the MR curve is below the AR curve and lies halfway on the perpendicular drawn from AR to the Y-axis. This relation will always exist between straight line downward slopping AR and MR curves.

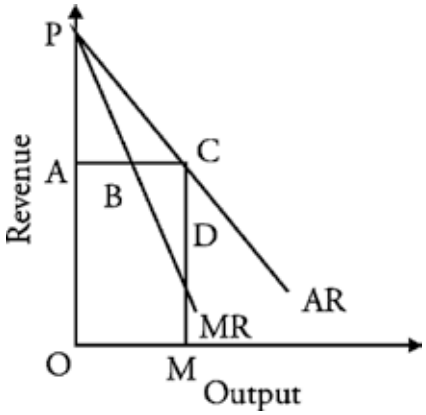


In case the AR curve is convex to the origin as in Figure 3 (A), the MR curve will cut any perpendicular from a point on the AR curve at more than half-way to the Y-axis. MR

passes to the left of the mid-point B on the CA. On the other hand, if the AR curve is concave to the origin, MR will cut the perpendicular at less than half-way towards the Y-axis. In Figure 3 (B), MR passes to the right of the mid-point B on the CA.

AR, MR and Elasticity:

However, the true relationship between the AR curve and its corresponding MR curve under monopoly or imperfect competition depends upon the elasticity of the AR curve.



We know that elasticity at point □ in Figure 4 is

E = CM/ PA = CM/CD (PA= CD being the sides of similar Δs)

E= $\frac{CM}{CM-DM}=\frac{AR}{AR-MR}$ (Where CM is AR and DM is MR).

$\therefore E=\frac{A}{A-M}$ (Where elasticity, A is average revenue and M marginal revenue).

By solving, we have,

EA-EM = A

EA-A = EM

A(E-1) = EM

A = $\frac{EM}{E-1}$

$\therefore A=M\frac{E}{E-1}$

Similarly, marginal revenue (M) can also be known,

$E=\frac{A}{A-M}$

By solving,

E (A-M) = A

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EA-EM = A

EA-A = EM

Or EM= EA-A

$$\therefore M = A\frac{EA-1}{E}$$

$$M = A\frac{(E-1)}{E}$$

$$\therefore M = A\frac{E-1}{E}$$

On the basis of this formula, the relationship between AR and MR is explained in terms of the Figure 5(A). At point B on the average revenue curve, PA, the elasticity of demand is equal to 1.

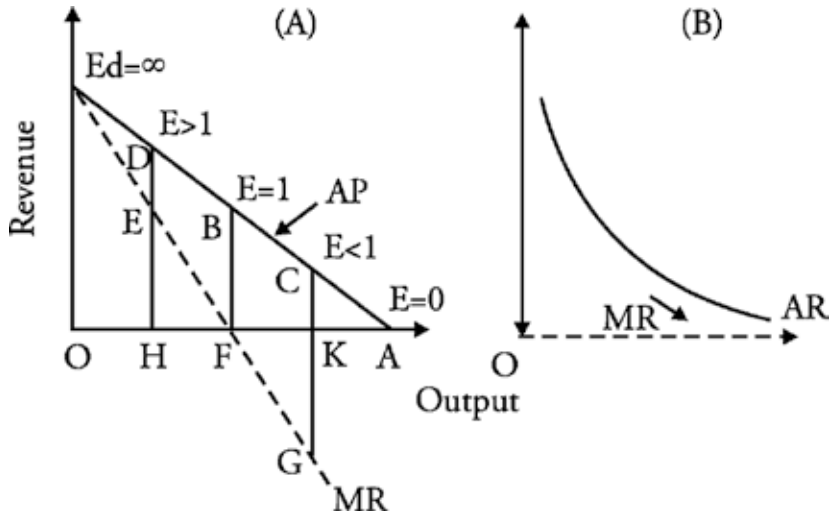
According to the formula,

MR = $AR\frac{1-1}{1} = AR\frac{0}{1} = 0$

The MR curve is zero when it touches the X-axis at point F. Thus, where elasticity of AR curve is unity, MR is always zero.

In case the elasticity of the AR curve is unity throughout its length like a rectangular hyperbola, the MR curve will coincide with the X-axis, shown as a dotted line in Figure 5(B).

If the elasticity of the AR curve at point D is greater than unity, say 3, MR = $AR\frac{3-1}{3} =$ 2/3. It shows that when the elasticity of AR is greater than one, MR is always positive. It is EH in Figure (A).

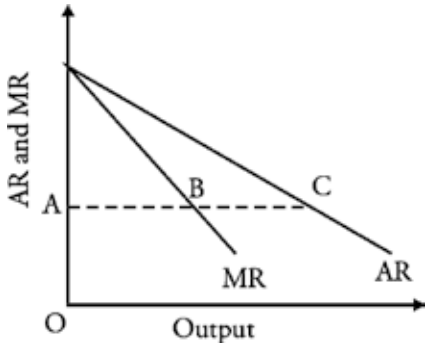


Where the elasticity of the AR curve is less than unity, say 1/2, MR

= AR= ½ $^{-1}$/ ½ = -½/ ½ = -1. It shows MR to be negative. At point □ on the AR curve, elasticity is less than unity and MR is negative KG. If the elasticity of AR is infinity (E = ∞), MR coincides with it at point P in Figure 5 (A). Lastly, when the elasticity of the AR curve is zero, the gap between AR and MR curves becomes wider and MR lies much below the X-axis.

(3) Monopolistic Competition:

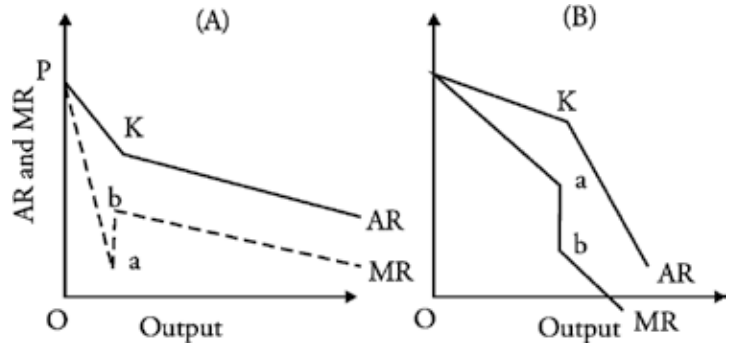
Under monopolistic competition, the relationship between AR and MR is the same as under monopoly. But there is an exception that the AR curve is more elastic, as shown in Figure 6. This is because products are close substitutes under monopolistic competition. The firm can increase its sales by a reduction in its price.



(4) Under Oligopoly:

The average and marginal revenue curves do not have a smooth downward slope under oligopoly. They possess kinks. Since the number of sellers under oligopoly is small, the effect of a price cut or price increase on the part of one seller will be followed by some changes in the behaviour of other firms. If a seller raises the price of his product, the other sellers will not follow him in order to earn larger profits at the old price.

So the price-raising seller will experience a fall in the demand for his product. His average revenue curve in Figure 7 (A) becomes elastic after □ and its corresponding MR curve rises discontinuously from a to b and then continues its course at the new higher level.



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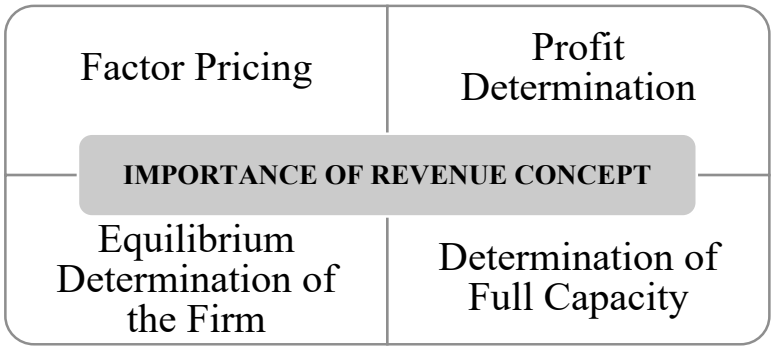
On the other hand, if the oligopolistic seller reduces the price of his product, his rivals also follow him in reducing the prices of their products so that he is not able to increase his sales. His AR curve becomes less elastic from onward, as in Figure7 (B). The corresponding MR curve falls vertically from a to b and then slopes at a lower level.

3.5 IMPORTANCE OF REVENUE CONCEPT

Four important areas where the concept of revenue has great significance are 1. profit determination 2. determination of full capacity 3. equilibrium determination of the firm and 4. factor pricing.



- **Profit Determination:** The AR and MR curves form important tools for economic analysis. The AR curve is the price line for the producer in all market situations. By relating the AR curve to the AC curve of a firm, it can be found out whether it is earning supernormal or normal profits or incurring losses.
  a. If the AR curve is tangent to the AC curve at the point of equilibrium, the firm earns normal profits.
  b. If the AR curve is above the AC curve, it makes supernormal profits.
  c. In case the AR curve is below the AC curve at the equilibrium point, the firm incurs losses.
- **Determination of Full Capacity:** It can also be known from their relationship whether the firm is producing at its full capacity or under capacity. If the AR curve is tangent to the AC curve at its minimum point, (as under perfect competition) the firm produces at its full capacity. Where it is not so (as under monopoly or monopolistic competition), the firm possesses idle capacity.
- **Equilibrium Determination of the Firm:** The MR curve when intersected by the MC curve determines the equilibrium position of the firm under all market situations. In-fact, their point of intersection determines price, output, profit or loss of a firm.
- **Factor Pricing:** The use of the average-marginal revenue concepts helps in determining the prices of factor services. In factor pricing they are inverted U-shaped and the average and marginal revenue curves become the average revenue productivity and marginal revenue productivity curves (ARP and MRP) and are useful tools in explaining the equilibrium of the firm under different market conditions.

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3.6 THEORY OF PRODUCTION

Production is an important economic activity which satisfies the wants and needs of the people. Production process involves the transformation of inputs into output. The inputs could be land, labour, capital, entrepreneurship etc. and the output could be goods or services. In a production process firms take four types of decisions: (a) whether to produce or not, (b) how much output to produce, (c) what input combination to use, and (d) what type of technology to use. Production function brings out the relationship between inputs used and the resulting output. This chapter helps to understand the set of conditions for efficient production of an organization.

Factors of production include resource inputs used to produce goods and services. Economist categorise input factors into four major categories such as land, labour, capital and organization.

Land: Land is heterogeneous in nature. The supply of land is fixed and it is a permanent factor of production but it is productive only with the application of capital and labour.

Labour: The supply of labour is inelastic in nature but it differs in productivity and efficiency and it can be improved.

Capital: is a man-made factor and is mobile but the supply is elastic.

Organization: the organization plans, supervises, organizes and controls the business activity and also takes risks.

3.7 CONCEPT OF PRODUCTION FUNCTION AND FACTORS OF PRODUCTION

A production function is the functional relationship between inputs and output. It shows the maximum output which can be obtained for a given combination of inputs. It expresses the technological relationship between inputs and output of a product.

In general, we can represent the production function for a firm as:

$Q = f(x_1, x_2, \ldots, x_n)$

Where Q is the maximum quantity of output, $x_1, x_2, \ldots, x_n$ are the quantities of various inputs, and f stands for functional relationship between inputs and output. For the sake of clarity, let us restrict our attention to only one product produced using either one input or two inputs. If there are only two inputs, capital (K) and labour (L), we write the production function as:

$Q = f(L, K)$

This function defines the maximum rate of output (Q) obtainable for a given rate of capital and labour input.

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DISTINCTION BETWEEN THE SHORT-RUN AND THE LONG-RUN PRODUCTION FUNCTIONS

There are three possible ways of increasing the level of output. Output can be increased either by changing the amounts of all factors by the same proportion or by increasing their amounts in different proportions or by increasing the amounts of some factor(s) while keeping the amounts of other factors fixed. While the first two alternatives are available only in the long run, the third alternative is available in the short run. This brings us to the important question of the distinction between the short run and long run and the analytical significance of this distinction in the present context.

SHORT-RUN PRODUCTION FUNCTION

In the short run, some inputs (land, capital) are fixed in quantity. The output depends on how much of other variable inputs are used. For example, if we change the variable input namely (labour) the production function shows how much output changes when more labour is used.

In the short run producers are faced with the problem that some input factors are fixed. The firms can make the workers work for longer hours and also can buy more raw materials. In that case, labour and raw material are considered as variable input factors. But the number of machines and the size of the building are fixed. Therefore, it has its own constraints in producing more goods. For simplicity, we assume only two factors of production, labour (variable factor) and capital (fixed factor).

We can write the short-run production function as:

Q = f (L) □

This says that output (Q) is a function of or depends on labour (L) given fixed amount of capital at □.

MEASURES OF PRODUCTIVITY

- Total production (TP): the maximum level of output that can be produced with a given amount of input.
- Average Production (AP): output produced per unit of input AP = Q/L
- Marginal Production (MP): the change in total output produced by the last unit of an input
- Marginal production of labour = □ Q / □ L (i.e., change in the quantity produced to a given change in the labour)

FACTORS OF PRODUCTION

- Economic resources are the goods or services available to individuals and businesses used to produce valuable consumer products.
- The classic economic resources include land, labor and capital. Entrepreneurship is also considered an economic resource because individuals are responsible for creating businesses and moving economic resources in the business environment.

- These economic resources are also called the factors of production. The factors of production describe the function that each resource performs in the business environment.

Land

- Land is the economic resource encompassing natural resources found within the economy.
- This resource includes timber, land, fisheries, farms and other similar natural resources.
- Land is usually a limited resource for many economies. Although some natural resources, such as timber, food and animals, are renewable, the physical land is usually a fixed resource.
- Nations must carefully use their land resource by creating a mix of natural and industrial uses.

Labor

- Labor represents the human capital available to transform raw or national resources into consumer goods.
- Human capital includes all individuals capable of working in the economy and providing various services to other individuals or businesses.
- This factor of production is a flexible resource as workers can be allocated to different areas of the economy for producing consumer goods or services.
- Human capital can also be improved through training or educating workers to complete technical functions or business tasks when working with other economic resources.

Capital

- Capital has two economic definitions as a factor of production.
- Capital can represent the monetary resources companies use to purchase natural resources, land and other capital goods.
- Monetary resources flow through an economy as individuals buy and sell resources to individuals and businesses.
- Capital also represents the major physical assets individuals and companies use when producing goods or services. These assets include buildings, production facilities, equipment, vehicles and other similar items.
- Individuals may create their own capital production resources, purchase them from another individual or business or lease them for a specific amount of time from individuals or other businesses.

Entrepreneurship

- Entrepreneurship is considered a factor of production because economic resources can exist in an economy and not be transformed into consumer goods.

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- Entrepreneurs usually have an idea for creating a valuable good or service and assume the risk involved with transforming economic resources into consumer products.
- Entrepreneurship is also considered a factor of production since someone must complete the managerial functions of gathering, allocating and distributing economic resources or consumer products to individuals and other businesses in the economy.

3.8 RETURNS TO A FACTOR/ LAW OF VARIABLE PROPORTION

It means "change in total product when an additional or incremental unit of a variable factor is employed given the fixed factors. Alternatively, 'when only one variable input is increased keeping other inputs constant, the resultant increase in output is called returns to a factor.'

If more and more units of a variable factor are employed with fixed factors, the Total Product (TP) initially increases at an increasing rate then after point of inflexion it increases at a diminishing rate and finally starts falling. With reference to Marginal Product (MP), the law states: if amounts of a certain variable factor are increased while keeping number of other factors fixed, MP first increases then falls, and eventually becomes negative. Thus, when more and more units of a variable factor are combined along with fixed factors, total product (TP) passes through three phases, namely, (I) TP increases at an increasing rate, (II) TP increasing at diminishing rate. (III) TP starts declining. In terms of behaviour of MP, 1) Marginal product (MP) rises in the first phase and reaches its maximum, 2) MP falls in the second phase and 3) finally MP becomes negative. This law operates in short run when all factors of production cannot be increased (or decreased) simultaneously

Assumptions:

1. Technology is constant.
2. All units of the variable factor (say labour) are homogenous.
3. There must be always some fixed inputs.
4. factors are imperfect substitute

The law of variable proportions can be explained with the help of the following schedule and diagram: Consider a field that is being cultivated for growing wheat. The field has an area of 1 acre. The schedule below describes how TP and MP change as more labour is hired to cultivate the field.

Table 1: Law of variable proportions

Units of Fixed Factor (Land) in acres	Units of Variable Input (Labour)	TP	MP
1	0	-	-
1	1	10	10

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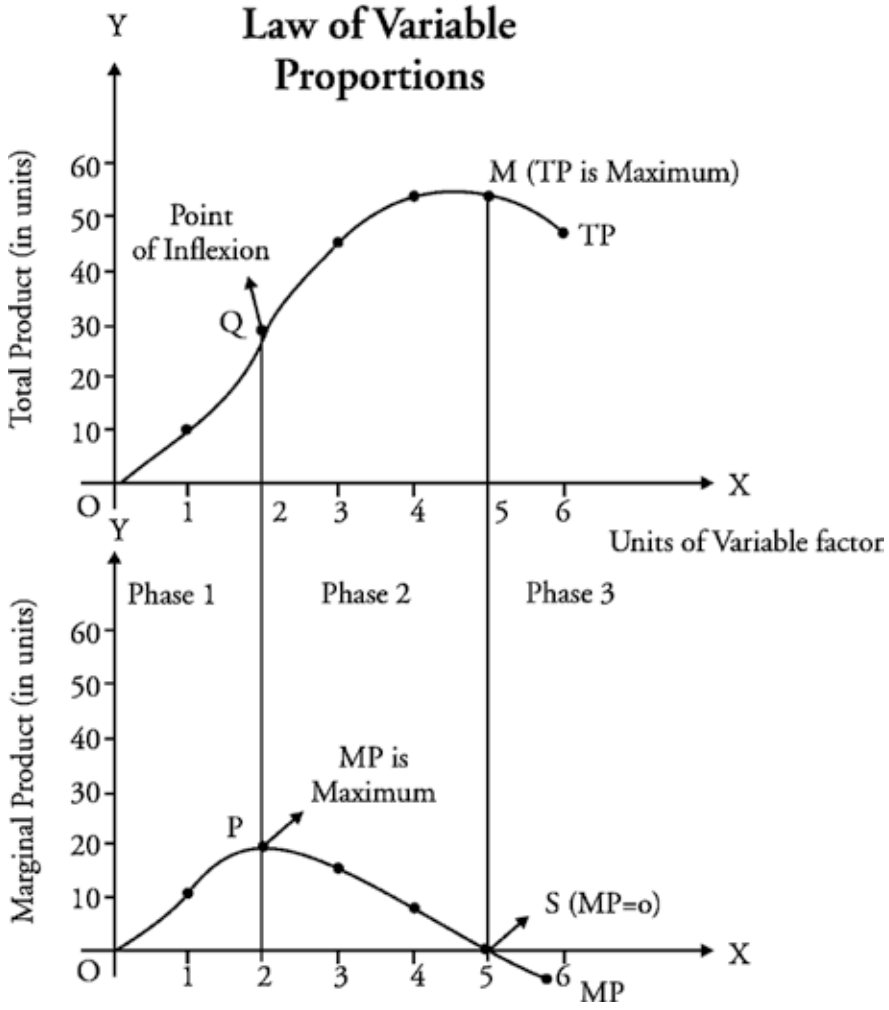
1	2	30	20
1	3	45	15
1	4	52	7
1	5	52	0
1	6	44	-8



STAGES OF LAW OF VARIABLE PROPORTION

1st Stage (Increasing Returns to a factor): When the units of variable input are increased keeping the fixed factors say (land) constant, then fixed inputs are utilised in a better and efficient manner. Due to which efficiency in the production process increases so that TP starts increasing at an increasing rate. This stage continues till the level where fixed inputs are utilised to their maximum efficiency i.e., the level where MP becomes maximum. This level of production is also termed as the Point of Inflexion because TP changes from increasing at an increasing rate to increasing at a decreasing rate. In the above diagram we could see that till 2nd units of variable factor employed the producer is able to generate maximum additional production (i.e., marginal product) of 20 units at point 'P' resulting

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in total production of 30 units at point 'Q'. After P, the marginal product begins to fall. TP also increases at a decreasing rate. So, Q is a point of inflexion.

Reasons for First Stage (Increase Returns to a Factor):

Causes of the Operation of Law of Increasing Returns:

1. Economies of Division of Labour and Specialization
2. Saving of Time and Improvement in the Technique of Production
3. Economies of the Use of Specialized Machinery
4. Managerial Economies
5. Economies of Buying and Selling

2nd Stage (Diminishing Returns to a factor): The law of diminishing returns to a factor states 'if we keep increasing the employment of an input, with other inputs fixed, eventually a point will be reached after which the resulting additional output (i.e., marginal product of that input) will start falling. When the units of variable input are further increased, then the factor proportion between fixed and variable inputs gets disturbed, due to which efficiency in the production process starts falling so that TP starts increasing at a diminishing rate. This stage continues till the level where MP becomes zero and TP reaches its maximum value. As shown in Figure 1 and Table 1, after second unit of variable factor when more variable factors are employed then the marginal product starts to fall. It touches X-axis at 5th unit. At this point, 'S', the marginal product becomes zero. Notice that the total product has reached its maximum of 52 units at the corresponding point 'M'.

Conditions or Causes of the Operation of Law of Diminishing Returns:

1. Fixity of One or More Factors of Production
2. Scarcity of Productive Resources
3. Going Beyond the Optimum Combination of Factors of Production
4. Factors of Production are not Perfect Substitutes for One Another

3rd Stage (Negative Returns to a factor): When the units of variable inputs are further increased, MP becomes negative and TP starts falling. As shown in the Figure 1, after employment of 5th unit of variable factor the marginal production has gone negative and total production has started falling.

Reasons for Third Stage (Negative Returns to a Factor):

1. There is poor coordination between variable and fixed factor.
2. Decrease in efficiency of variable factor.

CHECK YOUR PROGRESS

1. **What do you mean by production function?**
2. **What do you mean by factors of production?**
3. **State Law of variable proportions.**

4. **Explain the relationship between Average and Marginal Revenue when price is constant at all levels of output.**
5. **What are the major determinants of cost? Explain with suitable examples.**

3.9 LAW OF RETURNS TO SCALE

Factors of production can broadly be divided into two parts: Variable and fixed. In long run, all the factors of production become variable simultaneously and in a certain ratio. When a firm changes the quantity of the factors of production in long-run, it is called a change in the scale of production and studied as returns to scale. These three possibilities are termed as increasing returns to scale, constant returns to scale and diminishing returns to scale respectively.

Increasing returns to scale: When the total production increases at a faster rate as compared to the increase in inputs then it is termed as increasing returns to scale. For example, if inputs are increased by 100 % and TP increases by 200 % then it would represent increasing returns to scale. Increasing returns to scale represents the increase in efficiency in the production process due to better division of work and use of specialised machines. Increasing returns to scale can be explained with the help of the following schedule:

Table 2: Increasing returns to scale

UNITS OF		TP
LABOUR	CAPITAL	
2	1	10
4	2	25
6	3	40

Constant returns to scale: When the total production increases at an equal rate as compared to increase in inputs then it is termed as constant returns to scale. For example, if inputs are increased by 100 % and TP also increases by 100 % then it would represent constant returns to scale.

Constant returns to a scale can be explained with the help of following schedule.:

Table 3: Constant returns to scale

UNITS OF		TP
LABOUR	CAPITAL	
2	1	10
4	2	20
6	3	30

Diminishing returns to a scale: When the total production increases in a smaller proportion as compared to increase in inputs then it is termed as diminishing returns to a scale. For example, if inputs are increased by 100 % and TP also increases by 80 % then it would represent diminishing returns to scale.

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Diminishing returns to a scale can be explained with the help of following schedule:

Table 4: Diminishing returns to a scale

UNITS OF		TP
LABOUR	CAPITAL	
2	1	10
4	2	18
6	3	25

Reasons for Increasing Returns to Scale: Increasing Returns to Scale occur generally due to economies of scale. It refers to benefits attained due to large scale of production.

Economies of scale can be classified into two categories:

Internal Economies: It refers to benefits of large-scale production which are available to a firm within its own production process. For example, technical Economies in the form of use of bigger and better machinery and managerial economy, that are achieved through division of labour and specialization.

External Economies: It refers to benefits of large-scale production which are shared in by all the firms in an industry, when industry as a whole expands. For example, better infrastructural facilities, or the discovery of cheaper sources of a raw material.

Reasons for Decreasing Returns to Scale: Decreasing Returns to Scale occurs generally due to Diseconomies of Scale. Diseconomies of scale can be of two types:

Internal Diseconomies: It refers to disadvantages of large-scale production which a firm has to suffer due to its own production process. For example, difficulty in coordination of management and Technological Diseconomies due to heavy costs of wear and tear.

External Diseconomies: It refers to disadvantages of large-scale production which are suffered by all firms in an industry, when industry as a whole expands. For example, shortage of factor and non-factor inputs. Congestion, causing transportation delays and higher costs.

Difference between Returns to a Factor and Returns to a Scale

Table 5: Difference between Returns to a Factor and Returns to a Scale

Returns to a Factor	Returns to Scale
Operates during short run	Operates during long run
Represents the effect of changes in amount of one variable input on output produced, keeping other factors constant.	Represents the effect of changes in scale of production on output produced

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PRODUCTION FUNCTION WITH TWO VARIABLE INPUTS

Let's discuss the case of production where two inputs (say capital and labour) are variable. This analysis is restricted to two variable inputs only because it simply allows the scope for graphical analysis. While analysing production with more than one variable input, we cannot simply use sets of AP and MP curves because these curves were derived holding the use of all other inputs fixed and letting the use of only one input vary. If we change the level of fixed input, the TP, AP and MP curves would shift. In the case of two variable inputs, changing the use of one input would cause a shift in the MP and AP curves of the other input. For example, an increase in capital would probably result in an increase in the MP of labour over a wide range of labour use.

Production Isoquants

Every producer wants to achieve maximum production at minimum cost. For this purpose, he wants to establish an optimum combination of the factors of production with which he can achieve his object. It is done by the help of ISO quant or ISO product curves and ISO cost lines.

In Greek the word 'iso' means 'equal' or 'same'. A production *isoquant (equal output curve)* is the locus of all those combinations of two inputs which yields a given level of output. With two variable inputs, capital and labour, the isoquant gives the different combinations of capital and labour, that produces the same level of output.

ISO-product curve is a curve which represents all the possible combinations of two factors of production which produce equal amounts of production. A producer is indifferent to all these combinations.

Explanation with the help of Table and Diagram: A given output can be achieved by employing different combinations of factors of production. Let us assume that a firm can produce 10 units of a commodity by employing any of the following alternative combinations of two factors x and y.

Combinations	Units of factor 'x'	Units of Factor 'y'	Output Units
A	10	4	10x+ 4y = 10
B	8	6	8x + 6y = 10
C	6	9	6x + 9y = 10
D	4	13	4x + 13y = 10
E	2	18	2x + 18y = 10

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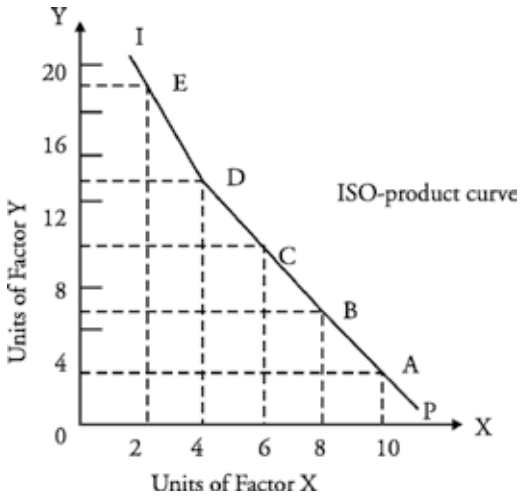
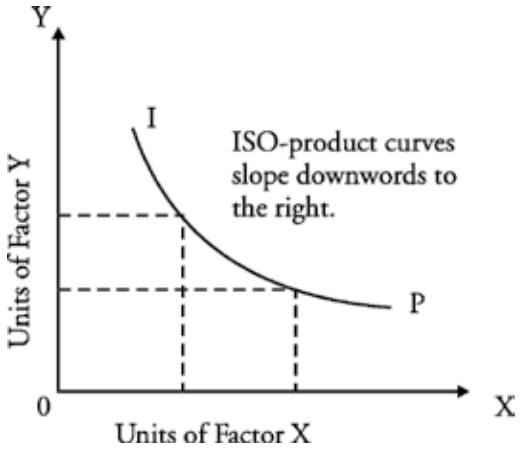


In above diagram, units of factor „x" have been presented on „ox" axis and the units of factor „y" has been presented on „oy" axis. A, B, C, E, are the combinations of factor „x" and factor „y" which produce equal amount of production i.e., 10 units. A curve „IP" has been drawn incorporating all these combinations. This curve is the ISO-product curve.

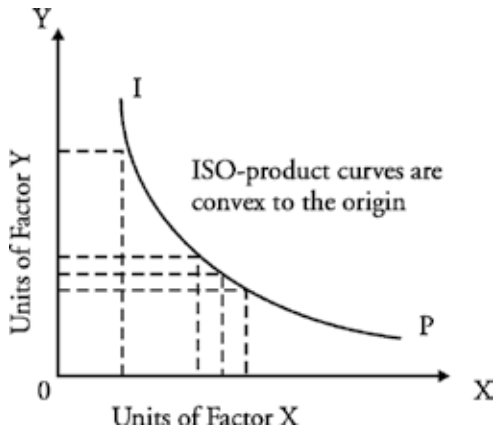
Properties of ISO-Product Curve:

1. **ISO-Product Curves Slope Downwards to the Right:** It implies that a decrease in the quantity of one factor of production must be associated with an increase in the quantity of another factor of production so that the same level of production may be maintained.



Thus, ISO-product curve can neither slope upward to the right, nor can it be horizontal.

2. **ISO-product curves are convex to the origin:** ISO-product curve is convex to the origin because the marginal rate of technical substitution (MRTS) diminishes along an ISO-product curve.

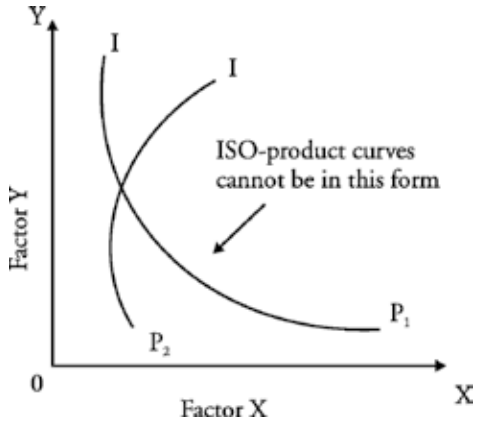


In this figure illustrates that to obtain every additional unit of x less amount of y is given up.

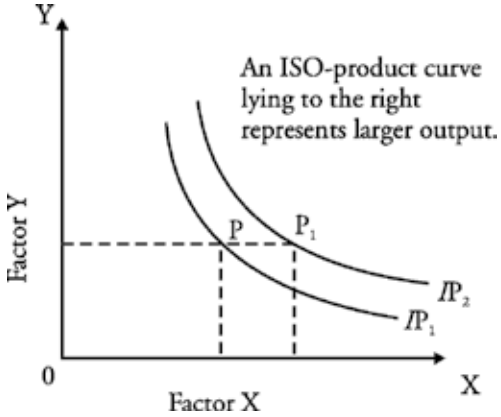
a. If inputs are perfect substitute, then equal product curve will be a straight line.

b. If inputs are perfect complements, then it is in the shape of a right angle.

3. **ISO-product curves cannot intersect each other:** ISO-product curves cannot intersect each other because all the ISO-product curves represent different levels of production.



4. **An ISO-product curve lying toward the right represents larger output:** An ISO-product curve lying to the right implies greater amount of both the factors of production. Therefore, it yields greater amount of production.



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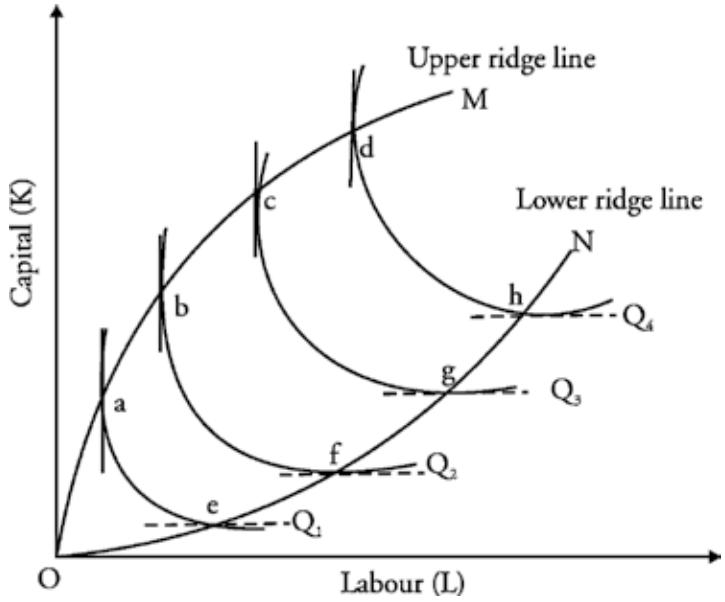
In this figure illustrates two ISO-product curves. IP2 uses greater amount of both the factors of production than IP1. As a result, it yields greater output.

ISOQUANT MAP AND ECONOMIC REGION OF PRODUCTION

Isoquant map is a set of isoquants like IQ1, IQ2, IQ3 and IQ4 in the following figure, where each isoquant shows different outputs produced by different combinations of labour and capital.



It is important to note here that, neither an isoquant nor an isoquant map is technically efficient because the MRTS on an isoquant decreases and reaches to zero. This means that zero MRTS marks a limit to which one input can be substituted for another and it also determines the minimum quantity of an input required for the production of an output. Beyond this point, it becomes important to employ both inputs for the production of the output (as the substitution between inputs does not take place anymore beyond this point). Such a point, where MRTS is equal to zero, can be determined by drawing a tangent on the Isoquant such that it is parallel to both the axes. Here in the above diagram, it is shown by the dash lines. Hence, points a, b, c, d, e, f, g, h are the points where MRTS = 0 and one input cannot be substituted for another anymore, i.e., the minimum amount of one input required for the production of the other.

When we join points a, b, c, d, we get an upper ridge line, OM and when we join points e, f, g, h then we get a lower ridge line, ON, as shown above. The upper ridge lines show that the marginal productivity of capital is zero on OM whereas the lower ridge line shows that the marginal productivity of labour is zero on ON. The area outside these ridge lines is the technically inefficient area where production cannot take place.

Hence, the area which is technically efficient and where the production can take place is the area between the ridges lines which is also known as the economic region. Thus, any production technique or any combination of labour and capital within this economic region is technically efficient to produce output.

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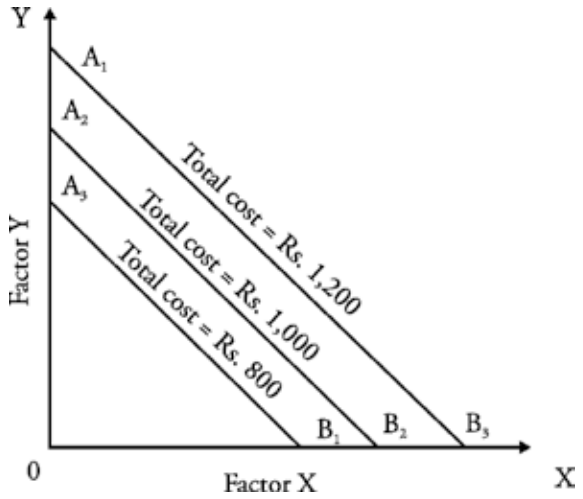
ISO Cost Lines: ISO-Cost line indicates different combinations of two factors of production which a firm can purchase at given prices with a given cost. ISO-Cost line is always a straight line. If total cost increase, ISO-Cost line moves to the right and if total Cost decreases, it moves to the left. It can be illustrated with the help of following figure:



It represents various combinations of factor x and y which a firm can purchase for Rs. 1,000. If it wants to spend Rs. 1,200, ISO-cost line moves to the right and A1, B1 becomes new ISO-cost line. If the firm wants to spend Rs. 800, ISO-cost line moves to the left and A2 B2 becomes the ISO-cost line.

3.10 DEFINITION AND CHARACTERISTICS OF MARKET

Ordinarily, the term "market" refers to a particular place where goods are purchased and sold. But, in economics, market is used in a wide perspective. In economics, the term "market" does not mean a particular place but the whole area where the buyers and sellers of a product are spread.

This is because in the present age the sale and purchase of goods are with the help of agents and samples. Hence, the sellers and buyers of a particular commodity arc spread over a large area. The transactions for commodities may be also through letters, telegrams, telephones, internet, etc. Thus, market in economics does not refer to a particular market place but the entire region in which goods are bought and sold. In these transactions, the price of a commodity is the same in the whole market.

Market structure, in economics, depicts how firms are differentiated and categorised based on the types of goods they sell (homogeneous/heterogeneous) and how their operations are affected by external factors and elements. Market structure makes it easier to understand the characteristics of diverse markets. In economics, market structures can be understood well by closely examining an array of factors or features exhibited by different players. Market structure refers to how different industries are classified and differentiated based on their degree and nature of competition for services and goods. The four popular types of market structures include perfect competition, oligopoly market, monopoly market, and

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monopolistic competition. Market structures show the relations between sellers and other sellers, sellers to buyers, or more. It is common to differentiate these markets across the following seven distinct features.

- The industry's buyer structure
- The turnover of customers
- The extent of product differentiation
- The nature of costs of inputs
- The number of players in the market
- Vertical integration extent in the same industry
- The largest player's market share

According to Prof. R. Chapman, "The term market refers not necessarily to a place but always to a commodity and the buyers and sellers who are in direct competition with one another."

Alfred Marshall, whose Principles of Economics (first published in 1890) was for long an authority for English-speaking economists, based his definition of the market on that of the French economist A. Cournot:

"Economists understand by the term Market, not any particular market place in which things are bought and sold, but the whole of any region in which buyers and sellers are in such free intercourse with one another that the prices of the same goods tend to equality easily and quickly."

To this Marshall added:

"The more nearly perfect a market is, the stronger is the tendency for the same price to be paid for the same thing at the same time in all parts of the market.

The essential features of a market are:

1. **An Area:** In economics, a market does not mean a particular place but the whole region where sellers and buyers of a product ate spread. Modem modes of communication and transport have made the market area for a product very wide.
2. **One Commodity:** In economics, a market is not related to a place but to a particular product. Hence, there are separate markets for various commodities. For example, there are separate markets for clothes, grains, jewellery, etc.
3. **Buyers and Sellers**: The presence of buyers and sellers is necessary for the sale and purchase of a product in the market. In the modem age, the presence of buyers and sellers is not necessary in the market because they can do transactions of goods through letters, telephones, business representatives, internet, etc.
4. **Free Competition**: There should be free competition among buyers and sellers in the market. This competition is in relation to the price determination of a product among buyers and sellers.

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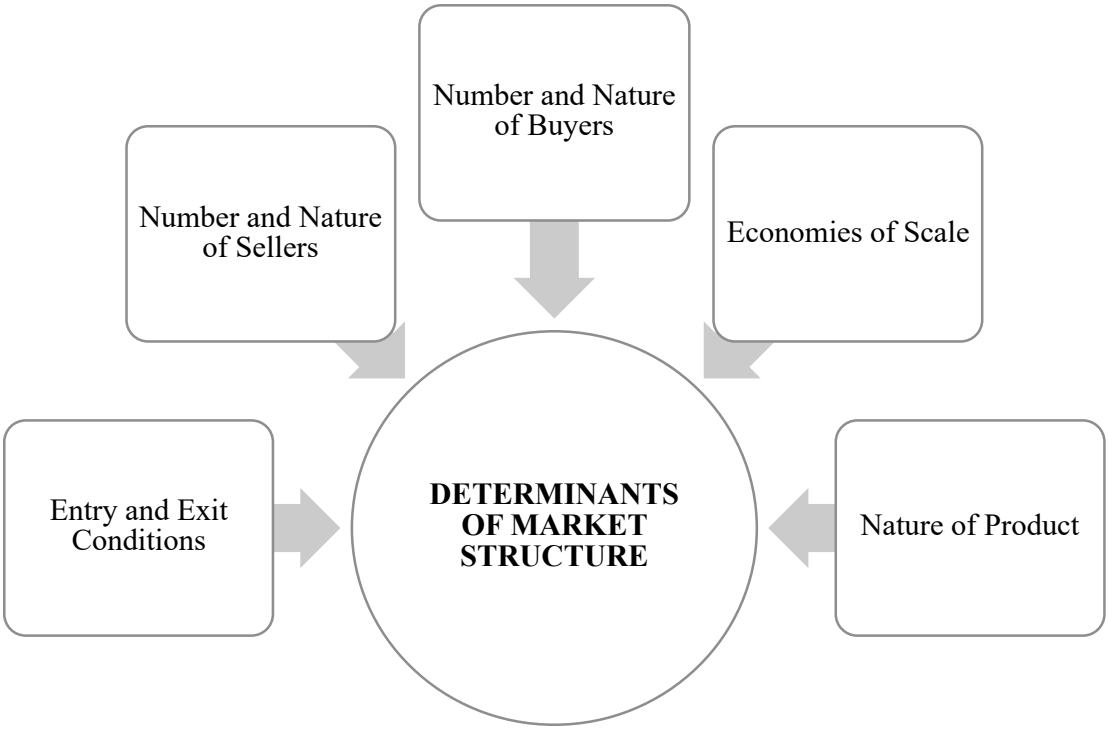
5. **One Price**: The price of a product is the same in the market because of free competition among buyers and sellers.

3.11 CONCEPT AND FORMS OF MARKET STRUCTURE

Market structure refers to the nature and degree of competition in the market for goods and services. The structures of market both for goods market and service (factor) market arc determined by the nature of competition prevailing in a particular market.

Determinants:
There are a number of determinants of market structure for a particular good.



1. **Number and Nature of Sellers**: The market structures are influenced by the number and nature of sellers in the market. They range from large number of sellers in perfect competition to a single seller in pure monopoly, to two sellers in duopoly, to a few sellers in oligopoly, and to many sellers of differentiated products.
2. **Number and Nature of Buyers:** The market structures are also influenced by the number and nature of buyers in the market. If there is a single buyer in the market, this is buyer's monopoly and is called monopsony market. Such markets exist for local labour employed by one large employer. There may be two buyers who act jointly in the market. This is called duopsony market. They may also be a few organised buyers of a product.

   This is known as oligopsony. Duopsony and oligopsony markets are usually found for cash crops such as rice, sugarcane, etc. when local factories purchase the entire crops for processing.

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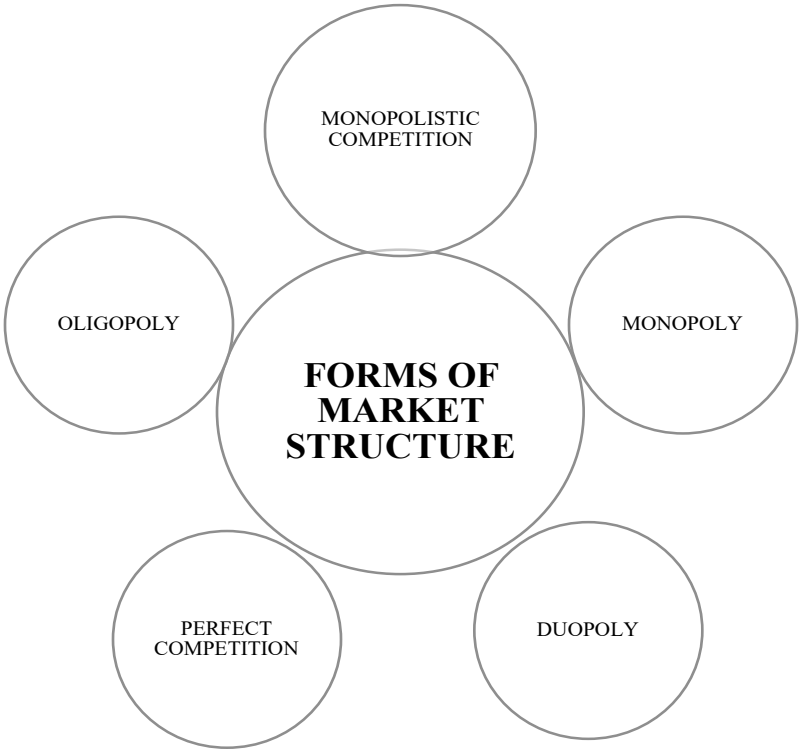
3. **Nature of Product:** It is the nature of product that determines the market structure. If there is product differentiation, products are close substitutes and the market is characterised by monopolistic competition. On the other hand, in case of no product differentiation, the market is characterised by perfect competition. And if a product is completely different from other products, it has no close substitutes and there is pure monopoly in the market.
4. **Entry and Exit Conditions:** The conditions for entry and exit of firms in a market depend upon profitability or loss in a particular market. Profits in a market will attract the entry of new firms and losses lead to the exit of weak firms from the market. In a perfect competition market, there is freedom of entry or exit of firms.

   But in monopoly and oligopoly markets, there are barriers to entry of new firms. Usually, governments have a monopoly in public utility services like postal, air and road transport, water and power supply services, etc. By granting exclusive franchises, entries of new supplies are barred. In oligopoly markets, there are barriers to entry of firms because of collusion, tacit agreements, cartels, etc. On the other hand, there are no restrictions in entry and exit of firms in monopolistic competition due to product differentiation.
5. **Economies of Scale:** Firms that achieve large economies of scale in production grow large in comparison to others in an industry. They tend to weed out the other firms with the result that a few firms are left to compete with each other. This leads to the emergency of oligopoly. If only one firm attains economies of scale to such a large extent that it is able to meet the entire market demand, there is monopoly.

FORMS OF MARKET STRUCTURE

On the basis of competition, a market can be classified in the following ways:



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1. PERFECT COMPETITION MARKET

A perfectly competitive market is one in which the number of buyers and sellers is very large, all engaged in buying and selling a homogeneous product without any artificial restrictions and possessing perfect knowledge of market at a time. In the words of A. Koutsoyiannis, "Perfect competition is a market structure characterised by a complete absence of rivalry among the individual firms." According to industry are price- takers and in which there is freedom of entry into, and exit from, industry"

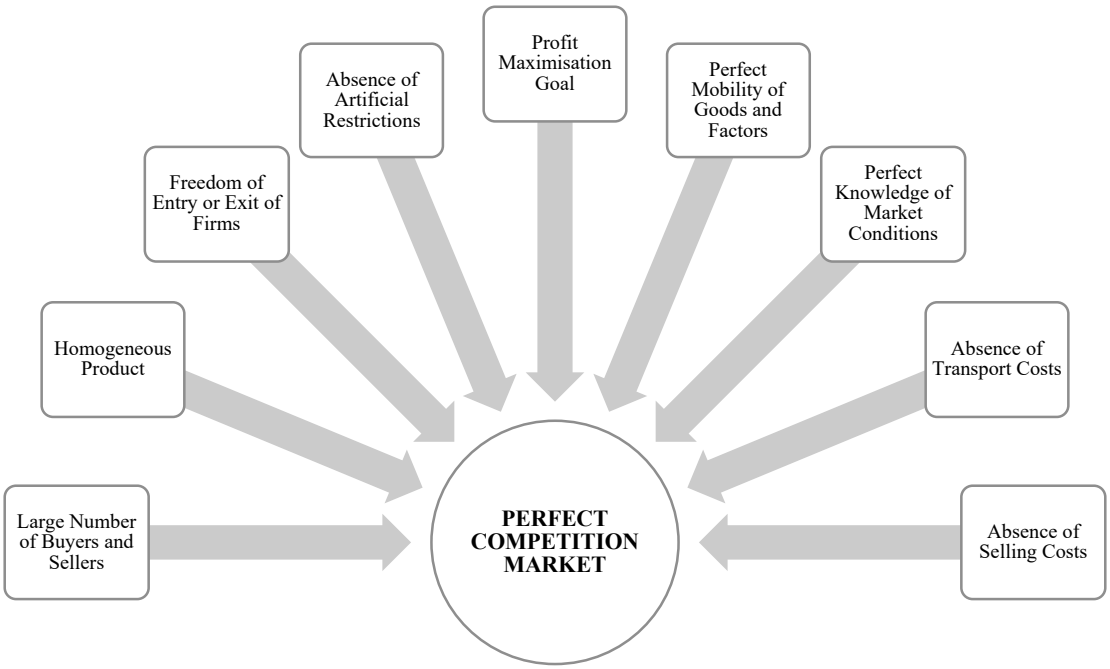
Characteristics of Perfect Competition

The following are the conditions for the existence of perfect competition:

a. **Large Number of Buyers and Sellers:** The first condition is that the number of buyers and sellers must be so large that none of them individually is in a position to influence the price and output of the industry as a whole. The demand of individual buyer relative to the total demand is so small that he cannot influence the price of the product by his individual action.

Similarly, the supply of an individual seller is so small a fraction of the total output that he cannot influence the price of the product by his action alone. In other words, the individual seller is unable to influence the price of the product by increasing or decreasing its supply.

Rather, he adjusts his supply to the price of the product. He is "output adjuster". Thus no buyer or seller can alter the price by his individual action. He has to accept the price for the product as fixed for the whole industry. He is a "price taker".



b. **Freedom of Entry or Exit of Firms:** The next condition is that the firms should be free to enter or leave the industry It implies that whenever the industry is earning

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excess profits, attracted by these profits some new firms enter the industry. In case of loss being sustained by the industry, some firms leave it.

c. **Homogeneous Product:** Each firm produces and sells a homogeneous product so that no buyer has any preference for the product of any individual seller over others. This is only possible if units of the same product produced by different sellers are perfect substitutes. In other words, the cross elasticity of the products of sellers is infinite.

No seller has an independent price policy. Commodities like salt, wheat, cotton and coal arc homogeneous in nature. He cannot raise the price of his product. If he does so, his customers would leave him and buy the product from other sellers at the ruling lower price.

The above two conditions between themselves make the average revenue curve of the individual seller or firm perfectly elastic, horizontal to the X-axis. It means that a firm can sell more or less at the ruling market price but cannot influence the price as the product is homogeneous and the number of sellers very large.

d. **Absence of Artificial Restrictions:** The next condition is that there is complete openness in buying and selling of goods. Sellers are free to sell their goods to any buyers and the buyers are free to buy from any sellers. In other words, there is no discrimination on the part of buyers or sellers.

Moreover, prices are liable to change freely in response to demand-supply conditions. There are no efforts on the part of the producers, the government and other agencies to control the supply, demand or price of the products. The movement of prices is unfettered.

e. **Profit Maximisation Goal:** Every firm has only one goal of maximising its profits.

f. **Perfect Mobility of Goods and Factors:** Another requirement of perfect competition is the perfect mobility of goods and factors between industries. Goods are free to move to those places where they can fetch the highest price. Factors can also move from a low-paid to a high-paid industry.

g. **Perfect Knowledge of Market Conditions:** This condition implies a close contact between buyers and sellers. Buyers and sellers possess complete knowledge about the prices at which goods are being bought and sold, and of the prices at which others are prepared to buy and sell. They have also perfect knowledge of the place where the transactions are being carried on. Such perfect knowledge of market conditions forces the sellers to sell their product at the prevailing market price and the buyers to buy at that price.

h. **Absence of Transport Costs:** Another condition is that there are no transport costs in carrying of product from one place to another. This condition is essential for the existence of perfect competition which requires that a commodity must have the same price everywhere at any time. If transport costs are added to the price of the product, even a homogeneous commodity will have different prices depending upon transport costs from the place of supply.

i. **Absence of Selling Costs:** Under perfect competition, the costs of advertising, sales-promotion, etc. do not arise because all firms produce a homogeneous product.

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PERFECT COMPETITION V/S PURE COMPETITION

Perfect competition is often distinguished from pure competition, but they differ only in degree. The first five conditions relate to pure competition while the remaining four conditions are also required for the existence of perfect competition. According to Chamberlin, pure competition means, competition unalloyed with monopoly elements," whereas perfect competition involves perfection in many other respects than in the absence of monopoly." The practical importance of perfect competition is not much in the present times for few markets are perfectly competitive except those for staple food products and raw materials. That is why, Chamberlin says that perfect competition is a rare phenomenon."

Though the real world does not fulfil the conditions of perfect competition, yet perfect competition is studied for the simple reason that it helps us in understanding the working of an economy, where competitive behaviour leads to the best allocation of resources and the most efficient organisation of production. A hypothetical model of a perfectly competitive industry provides the basis for appraising the actual working of economic institutions and organisations in any economy.

2. MONOPOLY MARKET

Monopoly is a market situation in which there is only one seller of a product with barriers to entry of others. The product has no close substitutes. The cross elasticity of demand with every other product is very low. This means that no other firms produce a similar product. According to D. Salvatore, "Monopoly is the form of market organisation in which there is a single firm selling a commodity for which there are no close substitutes." Thus the monopoly firm is itself an industry and the monopolist faces the industry demand curve.

The demand curve for his product is, therefore, relatively stable and slopes downward to the right, given the tastes, and incomes of his customers. It means that more of the product can be sold at a lower price than at a higher price. He is a price-maker who can set the price to his maximum advantage.

However, it does not mean that he can set both price and output. He can do either of the two things. His price is determined by his demand curve, once he selects his output level. Or, once he sets the price for his product, his output is determined by what consumers will take at that price. In any situation, the ultimate aim of the monopolist is to have maximum profits.

Characteristics of Monopoly

a. Under monopoly, there is one producer or seller of a particular product and there is no difference between a firm and an industry. Under monopoly a firm itself is an industry.

b. A monopoly may be individual proprietorship or partnership or joint stock company or a co-operative society or a government company.

c. A monopolist has full control on the supply of a product. Hence, the elasticity of demand for a monopolist's product is zero.

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d. There is no close substitute of a monopolist's product in the market. Hence, under monopoly, the cross elasticity of demand for a monopoly product with some other good is very low.

e. There are restrictions on the entry of other firms in the area of monopoly product.

f. A monopolist can influence the price of a product. He is a price-maker, not a pricetaker.

g. Pure monopoly is not found in the real world.

h. Monopolist cannot determine both the price and quantity of a product simultaneously.

i. Monopolist's demand curve slopes downwards to the right. That is why, a monopolist can increase his sales only by decreasing the price of his product and thereby maximise his profit. The marginal revenue curve of a monopolist is below the average revenue curve and it falls faster than the average revenue curve. This is because a monopolist has to cut down the price of his product to sell an additional unit.

3. DUOPOLY

Duopoly is a special case of the theory of oligopoly in which there are only two sellers. Both the sellers are completely independent and no agreement exists between them. Even though they are independent, a change in the price and output of one will affect the other, and may set a chain of reactions. A seller may, however, assume that his rival is unaffected by what he does, in that case he takes only his own direct influence on the price.

If, on the other hand, each seller takes into account the effect of his policy on that of his rival and the reaction of the rival on himself again, then he considers both the direct and the indirect influences upon the price. Moreover, a rival seller's policy may remain unaltered either to the amount offered for sale or to the price at which he offers his product. Thus the duopoly problem can be considered as either ignoring mutual dependence or recognising it.

4. OLIGOPOLY

Oligopoly is a market situation in which there are a few firms selling homogeneous or differentiated products. It is difficult to pinpoint the number of firms in 'competition among the few.' With only a few firms in the market, the action of one firm is likely to affect the others. An oligopoly industry produces either a homogeneous product or heterogeneous products.

The former is called pure or per feet oligopoly and the latter is called imperfect or differentiated oligopoly. Pure oligopoly is found primarily among producers of such industrial products as aluminium, cement, copper, steel, zinc, etc. Imperfect oligopoly is found among producers of such consumer goods as automobiles, cigarettes, soaps and detergents, TVs, rubber tyres, refrigerators, typewriters, etc.

Characteristics of Oligopoly

In addition to fewness of sellers, most oligopolistic industries have several common characteristics which are explained below:

a. **Interdependence:** There is recognised interdependence among the sellers in the oligopolistic market. Each oligopolists firm knows that changes in its price, advertising, product characteristics, etc. may lead to counter-moves by rivals. When the sellers are a few, each produces a considerable fraction of the total output of the industry and can have a noticeable effect on market conditions. He can reduce or increase the price for the whole oligopolists market by selling more quantity or less and affect the profits of the other sellers. It implies that each seller is aware of the price-moves of the other sellers and their impact on his profit and of the influence of his price-move on the actions of rivals.

   Thus there is complete interdependence among the sellers with regard to their price output policies. Each seller has direct and ascertainable influences upon every other seller in the industry. Thus, every move by one seller leads to counter-moves by the others.

b. **Advertisement:** The main reason for this mutual interdependence in decision making is that one producer's fortunes are dependent on the policies and fortunes of the other producers in the industry. It is for this reason that oligopolists firms spend much on advertisement and customer services.

   As pointed out by Prof. Baumol, "Under oligopoly advertising can become a life-and- death matter." For example, if all oligopolists continue to spend a lot on advertising their products and one seller does not match up with them he will find his customers gradually going in for his rival's product. If, on the other hand, one oligopolist advertises his product, others have to follow him to keep up their sales.

c. **Competition:** This leads to another feature of the oligopolistic market, the presence of competition. Since under oligopoly, there are a few sellers, a move by one seller immediately affects the rivals. So each seller is always on the alert and keeps a close watch over the moves of its rivals in order to have a counter-move. This is true competition.

d. **Barriers to Entry of Firms:** As there is keen competition in an oligopolistic industry, there are no barriers to entry into or exit from it. However, in the long run, there are some types of barriers to entry which tend to restraint new firms from entering the industry. They may be:

   i. Economies of scale enjoyed by a few large firms;

   ii. control over essential and specialised inputs;

   iii. high capital requirements due to plant costs, advertising costs, etc.

   iv. exclusive patents and licenses; and

   v. the existence of unused capacity which makes the industry unattractive.

   When entry is restricted or blocked by such natural and artificial barriers, the oligopolistic industry can earn long-run supernormal profits.

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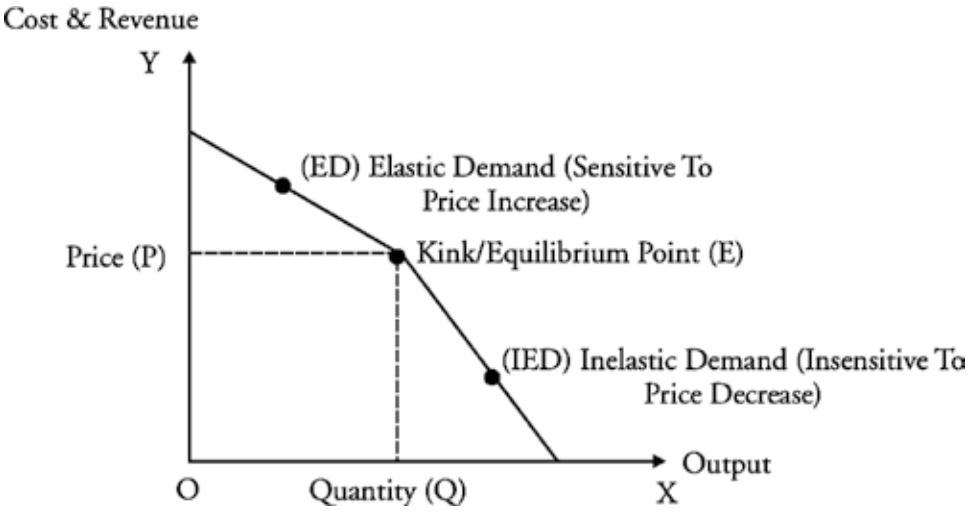
e. **Lack of uniformity:** Another feature of oligopoly market is the lack of uniformity in the size of firms. Finns differ considerably in size. Some may be small, others very large. Such a situation is asymmetrical. This is very common in the American economy. A symmetrical situation with firms of a uniform size is rare.

f. **Demand Curve:** Firms in an oligopoly market focus on non-price competition and less innovation but ensure their brands are uniquely identifiable. They believe in making customers stick to their brands for core competencies rather than lower prices to gain profits and market share. Despite having the same market share, a smaller number of firms causes oligopolists to get influenced by each other's decisions, such as price cuts and increases.

How oligopolists react to the price change by one firm can be best understood with the downward-sloping **Kinked demand curve.** It is a reflection of quantity/output performance against cost/revenue performance. The point at which an upward-sloping marginal cost curve intersects a downward-sloping marginal revenue curve results in a convex bend, known as kink.

Marginal cost is the cost of production, and marginal revenue is the product price. Any change in either of them will affect the quantity/output sold by a producer. Based on the elasticity of demand and its response to the price change, the demand curve shifts.



Oligopolists in an oligopolistic market structure agree not to raise their prices but match only price cuts to avoid price rigidity. However, too much price decrease can lead to a price war. As a result, each firm obligates to adhere to pre-determined price and quantity/output levels to maximize revenue.

So when an oligopolist decreases prices to increase output, others follow the path. On the other hand, if an oligopolist reduces output by raising prices, the rest refrain from doing so. Thus, each firm gains a considerable market share with minimal potential profits.

g. **No Unique Pattern of Pricing Behaviour:** The rivalry arising from interdependence among the oligopolists leads to two conflicting motives. Each wants to remain independent and to get the maximum possible profit. Towards this end, they act and react on the price-output movements of one another in a continuous element of uncertainty.

On the other hand, again motivated by profit maximisation each seller wishes to cooperate with his rivals to reduce or eliminate the element of uncertainty. All rivals enter into a tacit or formal agreement with regard to price-output changes. It leads to a sort of monopoly within oligopoly.

They may even recognise one seller as a leader at whose initiative all the other sellers raise or lower the price. In this case, the individual seller's demand curve is a part of the industry demand curve, having the elasticity of the latter. Given these conflicting attitudes, it is not possible to predict any unique pattern of pricing behaviour in oligopoly markets.

5. MONOPOLISTIC COMPETITION

Monopolistic competition refers to a market situation where there are many firms selling a differentiated product. "There is competition which is keen, though not perfect, among many firms making very similar products." No firm can have any perceptible influence on the price-output policies of the other sellers nor can it be influenced much by their actions. Thus monopolistic competition refers to competition among a large number of sellers producing close but not perfect substitutes for each other.

Features of monopolistic competition

The following are the main features of monopolistic competition:

a. **Large Number of Sellers:** In monopolistic competition the number of sellers is large. They are "many and small enough" but none controls a major portion of the total output. No seller by changing its price-output policy can have any perceptible effect on the sales of others and in turn be influenced by them. Thus there is no recognised an independent course of action.

b. **Product Differentiation:** One of the most important features of the monopolistic competition is differentiation. Product differentiation implies that products are different in some ways from each other. They are heterogeneous rather than homogeneous so that each firm has an absolute monopoly in the production and sale of a differentiated product. There is, however, slight difference between one product and other in the same category.

Products are close substitutes with a high cross-elasticity and not perfect substitutes. Product "differentiation may be based upon certain characteristics of the prod nets itself, such as exclusive patented features; trade-marks; trade names; peculiarities of package or container, if any; or singularity in quality, design, colour, or style. It may also exist with respect to the conditions surrounding its sales."

c. **Freedom of Entry and Exit of Firms:** Another feature of monopolistic competition is the freedom of entry and exit of firms. As firms are of small size and are capable

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of producing close substitutes, they can leave or enter the industry or group in the long run.

d. **Nature of Demand Curve:** Under monopolistic competition no single firm controls more than a small portion of t the total output of a product. No doubt there is an element of differentiation nevertheless the products are close substitutes. As a result, a reduction in its price will increase ' the sales of the firm but it will have little effect on the price-output conditions of other firms, each will lose only a few of its customers. Likewise, an increase in its price will reduce its demand substantially but each of its rivals will attract only a few of its customers. Therefore, the demand curve (average revenue curve) of a firm under monopolistic competition slopes downward to the right. It is elastic but not perfectly elastic within a relevant range of prices of which he can sell any amount.

e. **Independent Behaviour:** In monopolistic competition, every firm has independent policy. Since the number of sellers is large, none controls a major portion of the total output. No seller by changing its price-output policy can have any perceptible effect on the sales of others and in turn be influenced by them.

f. **Product Groups:** There is no any 'industry' under monopolistic competition but a 'group' of firms producing similar products. Each firm produces a distinct product and is itself an industry. Chamberlin lumps together firms producing very closely related products and calls them product groups, such as cars, cigarettes, etc.

g. **Selling Costs:** Under monopolistic competition where the product is differentiated, selling costs are essential to push up the sales. Besides, advertisement, it includes expenses on salesman, allowances to sellers for window displays, free service, free sampling, premium coupons and gifts, etc.

h. **Non-price Competition:** Under monopolistic competition, a firm increases sales and profits of his product without a cut in the price. The monopolistic competitor can change his product either by varying its quality, packing, etc. or by changing promotional programmes.

3.12 CHAPTER SUMMARY

The cost of revenue is the total cost incurred to obtain a sale and the cost of the goods or services sold. Thus, the cost of revenue is more than the traditional cost of goods sold concept, since it includes those specific selling and marketing activities associated with a sale. The microeconomic theory of cost and explains how cost relationships can be estimated and used in decision making. The relationship between the production theory and cost theory and between empirically estimated production functions and their cost counterparts refers to the estimation of Costs and Revenues.

In economics, a production function relates physical output of a production process to physical inputs or factors of production. This is also known as diminishing returns to scale increasing the quantity of inputs creates a less-than-proportional increase in the quantity of output. A production function is the functional relationship between inputs and output. It shows the maximum output which can be obtained for a given combination of inputs. It expresses the technological relationship between inputs and output of a product.

Market structure is best defined as the organisational and other characteristics of a market. We focus on those characteristics which affect the nature of competition and pricing - but it is important not to place too much emphasis simply on the market share of the existing firms in an industry.

3.13 REVIEW QUESTIONS

SHORT ANSWER TYPE QUESTIONS

1. **How Capital is considered to be a factor of production?**
2. **Define Average Product (AP) and Marginal Product (MP).**
3. **How is revenue concept important for economic analysis?**
4. **Explain in detail "Market structure"**
5. **What do you mean by Kinked demand curve?**

LONG ANSWER TYPE QUESTIONS

1. **Explain the characteristics of Perfect competition.**
2. **How demand function works under the Oligopoly market structure.**
3. **What are the key characteristics of all five forms of market structure?**
4. **The true relationship between the AR curve and its corresponding MR curve under monopoly or imperfect competition depends upon the elasticity of the AR curve. Explain.**
5. **What is meant by returns to a factor? State the law of diminishing returns to a factor?**

3.14 MULTIPLE CHOICE QUESTIONS

1. **Four important areas where the concept of revenue has great significance are**
   a. profit determination
   b. determination of full capacity
   c. equilibrium determination of the firm
   d. All of the above
2. **_____ refers to total receipts from the sale of a given quantity of a commodity. It is the total income of a firm.**
   a. Marginal revenue
   b. Total Revenue
   c. Average revenue
   d. None of the above
3. **Under monopolistic competition, the relationship between AR and MR is the same as under_____.**
   a. Monopoly
   b. Oligopoly

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c. perfect competition

d. None of the above

4. **The MR curve when intersected by the MC curve determines the _____ position of the firm under all market situations.**

a. elasticity

b. equilibrium

c. perfect

d. None of the above

5. **A production function relates _____ output of a production process to _____ inputs or factors of production.**

a. Physical

b. Practical

c. Both

d. None of above

6. **When all the inputs are increased in the same proportion, the production function is said to be _____.**

a. Homogeneous

b. Linear

c. Quadratic

d. None of the above

7. **The law of _____shows the relationship between units of a variable factor and the total physical product.**

a. Variable proportions

b. Returns to scale

c. Both of above

d. None of the above

8. **A production function with two variable inputs can be represented by a tool known as_____.**

a. Isoquants

b. Iso costs

c. Demand curve

d. Supply curve

9. **_____ depicts how firms are differentiated and categorised based on the types of goods they sell (homogeneous/heterogeneous) and how their operations are affected by external factors and elements.**

a. Market structure

b. Demand curve

c. Supply curve

d. Iso cost line

10. The Characteristics of market place include: _____

a. Existence of Buyer and Seller

b. Communication between Buyer and Seller

c. Place and Medium through which interact.

d. None of the above

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UNIT IV

BUSINESS CYCLE AND CONCEPTS OF INFLATION AND DEFLATION

STRUCTURE

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4.1 LEARNING OBJECTIVES

After reading this lesson, you will be able to:

- Understand the goal of tracking business cycles with a view to study the interactions of forces that affect business activities in general.
- Understand about inflation as to how it affects the overall economy of a country.
- Know about its types, causes, advantages, and its disadvantages.
- Know how to maintain low and stable rate of inflation.
- Understand the causes and effect of Deflation.
- Advantages and disadvantages of Deflation.
- Ways to fix deflation.

4.2 INTRODUCTION AND DEFINITION OF BUSINESS CYCLE

The period of high income, output and employment has been called the period of expansion, upswing or prosperity, and the period of low income, output and employment has been described as contraction, recession, downswing or depression.

The economic history of the free market capitalist countries has shown that the period of economic prosperity or expansion alternates with the period of contraction or recession.

These alternating periods of expansion and contraction in economic activity has been called business cycles. They are also known as trade cycles. J.M. Keynes writes, "A trade cycle is composed of periods of good trade characterized by rising prices and low unemployment percentages with periods of bad trade characterized by falling prices and high unemployment percentages."

A noteworthy feature about these fluctuations in economic activity is that they are recurrent and have been occurring periodically in a more or less regular fashion. Therefore, these fluctuations have been called business cycles. It may be noted that calling these fluctuations as 'cycles' means they are periodic and occur regularly, though perfect regularity has not been observed.

The duration of a business cycle has not been of the same length; it has varied from a minimum of two years to a maximum of ten to twelve years, though in the past it was often assumed that fluctuations of output and other economic indicators around the trend showed repetitive and regular pattern of alternating periods of expansion and contraction.

However, actually there has been no clear evidence of very regular cycles of the same definite duration. Some business cycles have been very short lasting for only two to three years, while others have lasted for several years. Further, in some cycles there have been large swings away from trend and in others these swings have been of moderate nature.

A significant point worth noting about business cycles is that they have been very costly in the economic sense of the word. During a period of recession or depression many workers

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lose their jobs and as a result large-scale unemployment, which causes loss of output that could have been produced with full employment of resources, come to prevail in the economy.

Besides, during depression many businessmen go bankrupt and suffer huge losses. Depression causes a lot of human sufferings and lowers the levels of living of the people. Fluctuations in economic activity create a lot of uncertainty in the economy which causes anxiety to the individuals about their future income and employment opportunities and involve a great risk for long-run investment in projects. Who does not remember the great havoc caused by the great depression of the early thirties of the present century?

Even boom when it is accompanied by inflation has its social costs. Inflation erodes the real incomes of the people and makes life miserable for the poor people. Inflation distorts allocation of resources by drawing away scarce resources from productive uses to unproductive ones. Inflation redistributes income in favour of the richer sections and also when inflation rate is high, it impedes economic growth.

About the harmful effects of the business cycles Crowther writes, "On the one hand, there is the misery and shame of unemployment with all the individual poverty and social disturbances that it may create. On the other hand, there is the loss of wealth represented by so much wasted and idle labour and capital."

4.3 FEATURES AND PHASES OF BUSINESS CYCLES

Though different business cycles differ in duration and intensity, they have some common features which we explain below:

1. Business cycles occur periodically. Though they do not show same regularity, they have some distinct phases such as expansion, peak, contraction or depression and trough. Further the duration of cycles varies a good deal from minimum of two years to a maximum of ten to twelve years.
2. Secondly, business cycles are synchronic. That is, they do not cause changes in any single industry or sector but are of all-embracing character. For example, depression or contraction occurs simultaneously in all industries or sectors of the economy. Recession passes from one industry to another and chain reaction continues till the whole economy is in the grip of recession. Similar process is at work in the expansion phase, prosperity spreads through various linkages of input-output relations or demand relations between various industries, and sectors.
3. Thirdly, it has been observed that fluctuations occur not only in level of production but also simultaneously in other variables such as employment, investment, consumption, rate of interest and price level.
4. Another important feature of business cycles is that investment and consumption of durable consumer goods such as cars, houses, and refrigerators are affected most by the cyclical fluctuations. As stressed by J.M. Keynes, investment is greatly volatile and unstable as it depends on profit expectations of private entrepreneurs. These expectations of entrepreneurs' change quite often making investment quite

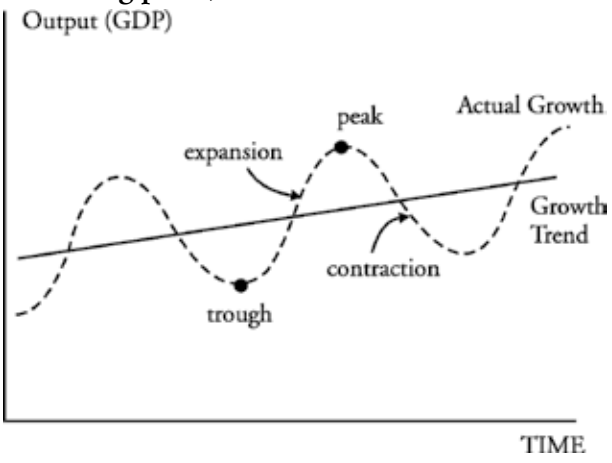
unstable. Since consumption of durable consumer goods can be deferred, it also fluctuates greatly during the course of business cycles.

5. An important feature of business cycles is that consumption of non-durable goods and services does not vary much during different phases of business cycles. Past data of business cycles reveal that households maintain a great stability in consumption of non-durable goods.
6. The immediate impact of depression and expansion is on the inventories of goods. When depression sets in, the inventories start accumulating beyond the desired level. This leads to cut in production of goods. On the contrary, when recovery starts, the inventories go below the desired level. This encourages businessmen to place more orders for goods whose production picks up and stimulates investment in capital goods.
7. Another important feature of business cycles is that profits fluctuate more than any other type of income. The occurrence of business cycles causes a lot of uncertainty for businessmen and makes it difficult to forecast the economic conditions. During the depression period profits may even become negative and many businesses go bankrupt. In a free market economy profits are justified on the ground that they are necessary payments if the entrepreneurs are to be induced to bear uncertainty.
8. Lastly, business cycles are international in character. That is, once started in one country they spread to other countries through trade relations between them. For example, if there is a recession in the USA, which is a large importer of goods from other countries, it will cause a fall in demand for imports from other countries whose exports would be adversely affected causing recession in them too. Depression of 1930s in USA and Great Britain engulfed the entire capital world.

PHASES OF BUSINESS CYCLES

Business cycles have shown distinct phases the study of which is useful to understand their underlying causes. These phases have been called by different names by different economists. Generally, the following phases of business cycles have been distinguished:

a. **Expansion (Boom, Upswing or Prosperity)**
b. **Peak (upper turning point)**
c. **Contraction (Downswing, Recession or Depression)**
d. **Trough (lower turning point)**



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The four phases of business cycles have been shown in adjoining figure where we start from trough or depression when the level of economic activity i.e., level of production and employment is at the lowest level.

With the revival of economic activity, the economy moves into the expansion phase, hut clue to the causes explained below, the expansion cannot continue indefinitely, and alter reaching peak, contraction or downswing starts. When the contraction gathers momentum, we have a depression. The downswing continues till the lowest turning point which is also called trough is reached.

In this way cycle is complete. However, after remaining at the trough for some time the economy revives and again the new cycle starts.

Haberler in his important work on business cycles has named the four phases of business cycles as:

a. Upswing,
b. Upper turning point,
c. Downswing, and
d. Lower turning point.

There are two types of patterns of cyclic changes. One pattern is shown in above figure where fluctuations occur around a stable equilibrium position as shown by the horizontal line. It is a case of dynamic stability which depicts change but without growth or trend.

The second pattern of cyclical fluctuations as shown in the figure where cyclical changes in economic activity take place around a growth path (i.e. rising trend). J.R. Hicks in his model of business cycles explains such a pattern of fluctuations with long- run rising trend in economic activity by imposing factors such as autonomous investment due to population growth and technological progress causing economic growth on the otherwise stationary state.

We briefly explain below various phases of business cycles.

a. **Expansion and Prosperity:** In its expansion phase, both output and employment increase till we have full employment of resources and production is at the highest possible level with the given productive resources. There is no involuntary unemployment and whatever unemployment prevails is only of frictional and structural types.

   Thus, when expansion gathers momentum and we have prosperity, the gap between potential GNP and actual GNP is zero, that is, the level of production is at the maximum production level. A good amount of net investment is occurring and demand for durable consumer goods is also high. Prices also generally rise during the expansion phase but due to high level of economic activity people enjoy a high standard of living.

   Then something may occur, whether banks start reducing credit or profit expectations change adversely and businessmen become pessimistic about future

state of the economy that brings an end to the expansion or prosperity phase. Economists differ regarding the possible causes of the end of prosperity and start of downswing in economic activity.

Monetarists have argued that contraction in bank credit may cause downswing. Keynes has argued that sudden collapse of expected rate of profit (which he calls marginal efficiency of capital, MEC) caused by adverse changes in expectations of entrepreneurs lowers investment in the economy. This fall in investment, according to him, causes downswing in economic activity.

b. **Contraction and Depression:** As stated above, expansion or prosperity is followed by contraction or depression. During contraction, not only there is a fall in GNP but also level of employment is reduced. As a result, involuntary unemployment appears on a large scale. Investment also decreases causing further fall in consumption of goods and services.

At times of contraction or depression prices also generally fall due to fall in aggregate demand. A significant feature of depression phase is the fall in rate of interest. With lower rate of interest people's demand for money holdings increases. There is a lot of excess capacity as industries producing capital goods and consumer goods work much below their capacity due to lack of demand.

Capital goods and durable consumer goods industries are especially hit hard during depression. Depression, it may be noted, occurs when there is a severe contraction or recession of economic activities. The depression of 1929-33 is still remembered because of its great intensity which caused a lot of human suffering.

c. **Trough and Revival:** There is a limit to which level of economic activity can fall. The lowest level of economic activity, generally called trough, lasts for some time. Capital stock is allowed to depreciate without replacement. The progress in technology makes the existing capital stock obsolete. If the banking system starts expanding credit or there is a spurt in investment activity due to the emergence of scarcity of capital as a result of non-replacement of depreciated capital and also because of new technology coming into existence requiring new types of machines and other capital goods.

The stimulation of investment brings about the revival or recovery of the economy. The recovery is the turning point from depression into expansion. As investment rises, this causes induced increase in consumption. As a result, industries start producing more and excess capacity is now put into full use due to the revival of aggregate demand. Employment of labour increases and rate of unemployment falls. With this the cycle is complete.

4.4 CAUSES AND ROLE OF BUSINESS CYCLE IN ECONOMICS

1. **Interest rates:** Changes in the interest rate affect consumer spending and economic growth. For example, if interest rates are cut, this reduces borrowing costs and therefore increases disposable income for consumers; this leads to higher spending and economic growth. However, if the Central Bank increases interest rates to reduce inflation, this will tend to reduce consumer spending and investment,

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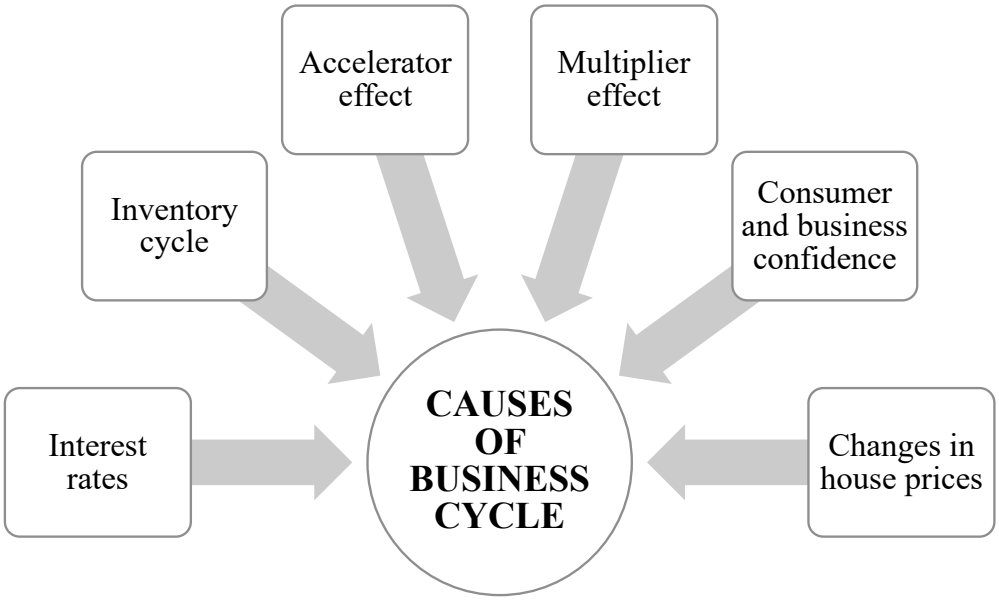
leading to an economic downturn and recession. High interest rates in 1991-92 were a major factor in the recession of that year. The cut in interest rates post 1992 helped the economy recovery.

2. **Changes in house prices:** A rise in house prices creates a wealth effect and leads to higher consumer spending. A fall in house prices causes lower consumer spending and bank losses, (house prices and consumer spending) In the late 1980s, the boom in house prices caused an economic boom. The drop in house prices in the early 1990s was a significant factor in causing the recession of 1991-92.
3. **Consumer and business confidence:** Fall in confidence in May 2008, contributed to deepest recession for a considerable time. People are easily influenced by external events. If there is a succession of bad economic news, this tends to discourage people from spending and investing making a small downturn in to a bigger recession. But, when the economy recovers this can cause a positive bandwagon effect. Economic growth encourages consumers to borrow and banks to lend. This causes higher economic growth. Confidence is an important factor in causing the business cycle.



4. **Multiplier effect:** The multiplier effect states that a fall in injections may cause a bigger final fall in real GDP. For example, if the government cut public investment, there would be fall in aggregate demand and a rise in unemployment. However, those who lost their jobs would also spend less, leading to even lower demand in the economy. Alternatively, an injection could have a positive multiplier effect.
5. **Accelerator effect:** This states that investment depends on the rate of change of economic growth. If the growth rate falls, firms reduce investment because they don't expect output to rise as quickly. Drop in business investment caused by lower growth and credit crunch made the recession deeper. This theory suggests investment is quite volatile and small changes in the rate of growth have a big effect on investment levels.

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6. **Inventory cycle:** Some argue that there is a natural inventory cycle. For example, there are some 'luxury' goods we buy every five years or so. When the economy is doing well, people buy these luxury items causing faster economic growth. But, in a downturn, people delay buying luxury goods, and so we get a bigger economic downturn.

   In many cases, free markets and the business cycle allow companies to increase profits through the study of economics. Economic studies require constant review in order to stay prevalent in the market. Knowing when to exit a market prior to a decline is key to preserving profits.

Theories on the Causes of Business Cycles

Economic fluctuations have existed since the beginning of the Industrial Revolution. While economists have debated their causes and what steps to take to moderate them, the cycles seem to recur with an inevitable predictability. Understanding business cycles is important for a business owner to plan and adjust his operations for survival and long-term growth.

The traditional theory of the business cycle holds that at the peak of the cycle, the economy is at full employment and performing at maximum capacity. Businesses and consumers have maxed out their purchasing and need to pay off debt. Inventories rise, signalling the onset of a recession. The downturn lasts for at least two quarters. Unemployment rises as production falls. Businesses that were born in the exuberance of an economic boom now fail. The decline continues until the recession bottoms out. The turnaround may be due to the elimination of excess capacity in the economy, external shocks such as the onset of war, or major innovations such as the technology boom of the 1980s. Once the economy is growing, it continues to expand until it peaks again. Typically, housing and automobiles are key industries to follow since they are the largest expenditures that most people make.

Monetary Policy

Monetary policy — the control of the money supply and interest rates by the Federal Reserve — theoretically is the cause of the business cycle, according to some economists. That model can only reach as far back as 1913, though, when the Federal Reserve was established. The Fed's mandates are to promote economic growth with stable prices. To that end, when the economy is weak, the Fed pumps up the money supply, which lowers interest rates. Conversely, when the economy is overheated the Fed pulls back on the growth of the money supply, causing interest rates to rise. Plenty of money in circulation and low interest rates stimulate the economy, but the timing and magnitude of the stimulus is difficult to judge, as are restrictive policies. Critics of the Fed argue that bad timing and overreaction by the Fed cause the economic swings they are trying to prevent.

Internal Causes

Other economists argue that the fluctuations of the business cycle are caused by internal factors. When the economy is in the recovery stage, people are optimistic and confident about the future, according to the theory. They make purchases such as houses and automobiles that must be bought on credit. Since consumer spending accounts for 70 percent of the gross domestic product, any shift in consumption is certain to have

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economic ramifications. As consumers feel the need to pay off debt before spending more, there is a drop in consumer confidence and the economy shifts into recession. The rise in unsold inventories and drop in consumer confidence are two of the indicators signalling an economic downturn.

Shocks and Innovation

Business cycles are not uniform in length or intensity. This makes some economists look to external factors to explain these fluctuations. World War II brought an end to the Great Depression, for example. The discovery of recoverable oil in the Bakken oil field and others will fuel economic expansion if the government continues to allow fracking to be used. Similarly, innovation can spur economic expansion. The technology revolution that began in the 1980s drove the economic growth of the 1990s. The boom ended when over-exuberance in technology led to the "dot-com" collapse and a retreat from the excesses of the expansion. Whether the government can influence the business cycle remains debatable among economists. For a business owner, it remains a factor to consider while planning for the future.

The role of the business cycle in economics also plays a part in government policy decisions. During growth and peak economic times where private sector companies and individuals typically make the most money a government may alter tax policies. For example, it is often tempting to increase taxes in order to achieve higher government revenues. During contraction and trough economic periods, tax breaks and other rollbacks of government regulations can help the free market recover. In more government-led economies, a contraction or trough may result in more spending in order to jump-start the economy, per Keynesian economic theory.

Fluctuations in an economy should not be fearful times. A common term applied to the contraction and trough periods of the business cycle is destructive capitalism. The role of the business cycle in economics here is to rid the economy of poor-performing companies. Old, inefficient, and weak companies tend to liquidate or merge with stronger organizations. Once the economy begins to grow, the new companies will be stronger and more beneficial to the overall economy.

ROLE OF THE BUSINESS CYCLE IN ECONOMICS

A business cycle, sometimes called a "trade cycle" or "economic cycle," refers to a series of stages in the economy as it expands and contracts. Constantly repeating, it is primarily measured by the rise and fall of gross domestic product (GDP) in a country.

Business cycles are universal to all nations that have capitalistic economies. All such economies will experience these natural periods of growth and declines, though not all at the same time. However, given the increased globalization, business cycles tend to happen at similar times across countries more often than they did before.

Understanding the different phases of a business cycle can help individuals make lifestyle decisions, investors make financial decisions, and governments make appropriate policy decisions.

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Business cycles vs. market cycles

Though often used interchangeably, technically a business cycle is different from a market cycle. A market cycle specifically refers to the different growth and decline stages of the stock market, while the business cycle reflects the economy as a whole.

But the two are definitely related. The stock market is greatly influenced by the phases of a business cycle and generally mirrors its stages. During the contractionary phase of a cycle, investors sell their holdings, depressing stock prices — a bear market. In the expansionary phase, the opposite occurs: Investors go on a buying spree, causing stock prices to rise — a bull market.

4.5 ECONOMIC ADVANTAGES OF A BOOM-BEST CYCLE

Boom cycles encourage investors to take risks. When these risks involve market speculation that is a bad thing, but if these risks are actually genuinely innovative business ideas which might not normally meet standard evaluation criteria, a positive outcome may result. Many of those ideas will come to nothing but there may be some surprise stars in there which would never have attracted investment otherwise.

Booms also allow struggling businesses to survive when they would otherwise fail. Again this is bad if the business is fundamentally unsound but, if it is a new business trying to establish itself, a boom environment may give it more time to get on its feet.

There isn't much good about busts but you could apply a reverse argument to the one above concerning booms. Busts are the economic equivalent of forest fires, clearing out dead wood and leaving an uncluttered environment ripe for a fresh start. Losing your job in a bust is always painful but resourceful people may use this as an opportunity to trigger a career change. It can be difficult to spot when a company or industry is engaged in a slow decline, and busts reveal these conditions more clearly.

Boom and bust was a large factor in the speed of the industrial revolution and the technological advances of 19th century Britain. The first railways were built in a frenzy of investor excitement and pretty much everybody involved lost their money in the bust which followed. However, the legacy was a railway network built in a very short space of time and which became available at a knock down price to the second wave of railway investors who picked up the pieces. Agents in a consistently steady and cautious investment environment may not have chosen to invest in railways at all and, if they had, would probably have done so much more slowly.

4.6 DEFINITION AND TYPES OF INFLATION

Inflation is the decline of purchasing power of a given currency over time. A quantitative estimate of the rate at which the decline in purchasing power occurs can be reflected in the increase of an average price level of a basket of selected goods and services in an economy over some period of time. The rise in the general level of prices, often expressed as a percentage, means that a unit of currency effectively buys less than it did in prior periods.

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Inflation occurs due to an imbalance between demand and supply of money, changes in production and distribution cost or increase in taxes on products. When economy experiences inflation, i.e. when the price level of goods and services rises, the value of currency reduces. This means now each unit of currency buys fewer goods and services.

It has its worst impact on consumers. High prices of day-to-day goods make it difficult for consumers to afford even the basic commodities in life. This leaves them with no choice but to ask for higher incomes. Hence the government tries to keep inflation under control.

Contrary to its negative effects, a moderate level of inflation characterizes a good economy. An inflation rate of 2% or 3% is beneficial for an economy as it encourages people to buy more and borrow more, because during times of lower inflation, the level of interest rate also remains low. Hence the government as well as the central bank always strive to achieve a limited level of inflation.

TYPES OF INFLATION

Some experts say demand-pull and cost-push inflation are two more types, but they are causes of inflation. So is expansion of the money supply.

The three types of Inflation are Demand-Pull, Cost-Push and Built-in inflation.

Demand-pull Inflation: It occurs when the demand for goods or services is higher when compared to the production capacity. The difference between demand and supply (shortage) result in price appreciation.

Cost-push Inflation: It occurs when the cost of production increases. Increase in prices of the inputs (labour, raw materials, etc.) increases the price of the product.

Built-in Inflation: Expectation of future inflations results in Built-in Inflation. A rise in prices results in higher wages to afford the increased cost of living. Therefore, high wages result in increased cost of production, which in turn has an impact on product pricing. The circle hence continues.

Inflation is when the prices of goods and services increase. There are four main types of inflation, categorized by their speed. They are creeping, walking, galloping and hyperinflation. There are specific types of asset inflation and also wage inflation.

1. **Creeping Inflation:** Creeping or mild inflation is when prices rise 3 percent a year or less. According to the Federal Reserve, when prices increase 2 percent or less it benefits economic growth. This kind of mild inflation makes consumers expect that prices will keep going up. That boosts demand. Consumers buy now to beat higher future prices. That's how mild inflation drives economic expansion. For that reason, the Fed sets 2 percent as its target inflation rate.
2. **Walking Inflation:** This strong, or destructive, inflation is between 3% and 10% per year. It is harmful to the economy, because it heats up economic growth too quickly. People start to buy more than they need, to avoid tomorrow's much-higher prices. This increased buying drives demand even further so that suppliers

can't keep up. More important, neither can wages. As a result, common goods and services are priced out of the reach of most people.

3. **Galloping Inflation:** When inflation rises to 10 percent or more, it wreaks absolute havoc on the economy. Money loses value so fast that business and employee income can't keep up with costs and prices. Foreign investors avoid the country, depriving it of needed capital. The economy becomes unstable, and government leaders lose credibility. Galloping inflation must be prevented at all costs. Galloping inflation occurred during WW-II.
4. **Hyperinflation:** Hyperinflation is when prices skyrocket more than 50 percent a month. It is very rare. In fact, most examples of hyperinflation have occurred only when governments printed money to pay for wars. Examples of hyperinflation include Germany in the 1920s, Zimbabwe in the 2000s, and America during its civil war.
5. **Stagflation:** Stagflation is when economic growth is stagnant but there still is price inflation. This seems contradictory, if not impossible. Why would prices go up when there isn't enough demand to stoke economic growth?

   It happened in the 1970s when the United States abandoned the gold standard. Once the dollar's value was no longer tied to gold, it plummeted. At the same time, the price of gold skyrocketed.
6. **Core Inflation:** The core inflation rate measures rising prices in everything except food and energy. That's because gas prices tend to escalate every summer. Families use more gas to go on vacation. Higher gas costs increase the price of food and anything else that has large transportation costs.
7. **Deflation:** Deflation seems good at first, but it has terrible consequences for businesses and homeowners. Deflation is the opposite of inflation. It's when prices fall. It's caused when an asset bubble bursts.
8. **Wage Inflation:** Most U.S. workers have not experienced wage inflation. Wage inflation is when workers' pay rises faster than the cost of living. This occurs in three situations. First, is when there is a shortage of workers. Second, is when labor unions negotiate ever-higher wages. Third is when workers effectively control their own pay. Of course, everyone thinks their wage increases are justified. But higher wages are one element of cost-push inflation. That can drive up prices of a company's goods and services.
9. **Asset Inflation:** An asset bubble, or asset inflation, occurs in one asset class. Good examples are housing, oil and gold. It is often overlooked by the Federal Reserve and other inflation watchers when the overall rate of inflation is low. But the subprime mortgage crisis and subsequent global financial crisis demonstrated how damaging unchecked asset inflation can be.

4.7 CAUSES AND EFFECTS OF INFLATION

Inflation is mainly caused by excess demand/ or decline in aggregate supply or output. Former leads to a rightward shift of the aggregate demand curve while the latter causes

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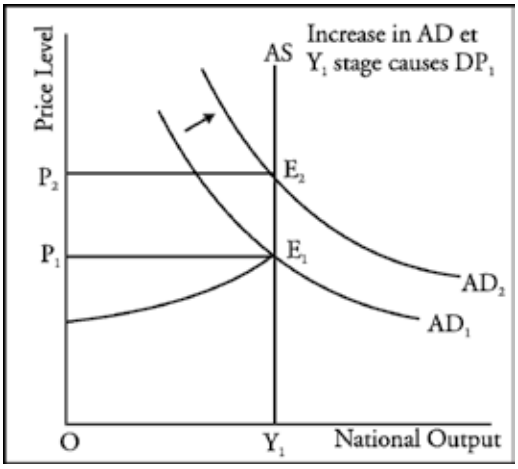
aggregate supply curve to shift left ward. Former is called demand-pull inflation (DPI), and the latter is called cost-push inflation (CPI). Before describing the factors, that lead to a rise in aggregate demand and a decline in aggregate supply, we like to explain "demand-pull" and "cost-push" theories of inflation.

1. **Demand-Pull Inflation Theory:** There are two theoretical approaches to the DPI—one is classical and other is the Keynesian. According to classical economists or monetarists, inflation is caused by an increase in money supply which leads to a rightward shift in negative sloping aggregate demand curve. Given a situation of full employment, classicists maintained that a change in money supply brings about an equi-proportionate change in price level.



That is why monetarists argue that inflation is always and everywhere a monetary phenomenon. Keynesians do not find any link between money supply and price level causing an upward shift in aggregate demand.

According to Keynesians, aggregate demand may rise due to a rise in consumer demand or investment demand or government expenditure or net exports or the combination of these four components of aggregate demand. Given full employment, such increase in aggregate demand leads to an upward pressure in prices. Such a situation is called DPI. This can be explained graphically.

Just like the price of a commodity, the level of prices is determined by the interaction of aggregate demand and aggregate supply. In Fig., aggregate demand curve is negative sloping while aggregate supply curve before the full employment stage is positive sloping and becomes vertical after the full employment stage is reached. ADI is the initial aggregate demand curve that intersects the aggregate supply curve AS at point El.

The price level, thus, determined is OP1. As aggregate demand curve shifts to AD2, price level rises to OP2. Thus, an increase in aggregate demand at the full employment stage leads to an increase in price level only, rather than the level of output. However, how much price level will rise following an increase in aggregate demand depends on the slope of the AS curve.

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Causes of Demand-Pull Inflation

DPI originates in the monetary sector. Monetarists' argument that "only money matters" is based on the assumption that at or near full employment excessive money supply will increase aggregate demand and will, thus, cause inflation.

An increase in nominal money supply shifts aggregate demand curve rightward. This enables people to hold excess cash balances. Spending of excess cash balances by them causes price level to rise. Price level will continue to rise until aggregate demand equals aggregate supply.

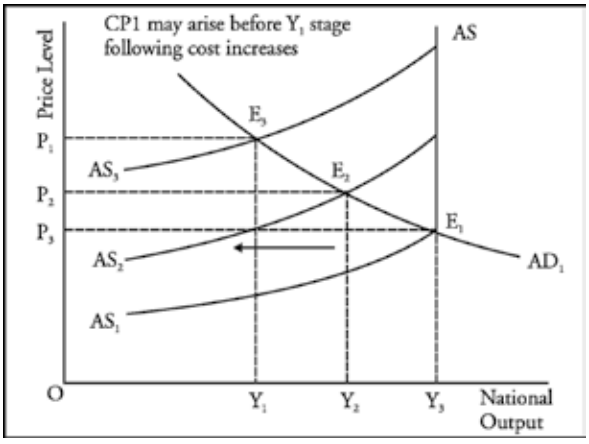
Keynesians argue that inflation originates in the non-monetary sector or the real sector. Aggregate demand may rise if there is an increase in consumption expenditure following a tax cut. There may be an autonomous increase in business investment or government expenditure. Government expenditure is inflationary if the needed money is procured by the government by printing additional money.

In brief, increase in aggregate demand i.e., increase in (C + I + G + X-M) causes price level to rise. However, aggregate demand may rise following an increase in money supply generated by the printing of additional money (classical argument) which drives prices upward. Thus, money plays a vital role. That is why Milton Friedman argues that inflation is always and everywhere a monetary phenomenon.

There are other reasons that may push aggregate demand and, hence, price level up wards. For instance, growth of population stimulates aggregate demand. Higher export earnings increase the purchasing power of the exporting countries. Additional purchasing power means additional aggregate demand. Purchasing power and, hence, aggregate demand may also go up if government repays public debt.

Again, there is a tendency on the part of the holders of black money to spend more on conspicuous consumption goods. Such tendency fuels inflationary fire. Thus, DPI is caused by a variety of factors.

2. **Cost-Push Inflation Theory:** In addition to aggregate demand, aggregate supply also generates inflationary process. As inflation is caused by a leftward shift of the aggregate supply, we call it CPI. CPI is us ally associated with non-monetary factors. CPI arises due to the increase in cost of production. Cost of production may rise due to a rise in cost of raw materials or increase in wages.



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However, wage increase may lead to an increase in productivity of workers. If this hap pens, then the AS curve will shift to the right- ward not leftward—direction. We assume here that productivity does not change in spite of an increase in wages.

Such increases in costs are passed on to consumers by firms by raising the prices of the products. Rising wages lead to rising costs. Rising costs lead to rising prices. And, rising prices again prompt trade unions to demand higher wages. Thus, an inflationary wage-price spiral starts. This causes aggregate supply curve to shift leftward.

This can be demonstrated graphically where AS 1 is the initial aggregate supply curve. Below the full employment stage this AS curve is positive sloping and at full employment stage it becomes perfectly inelastic.

Intersection point (El) of ADI and AS1 curves determines the price level (OPl). Now there is a leftward shift of aggregate supply curve to AS2. With no change in aggregate demand, this causes price level to use to OP2 and output to fall to OY2. With the reduction in output, employment in the economy declines or unemployment rises. Further shift in AS curve to AS3 results in a higher price level (OP3) and a lower volume of aggregate output (OY3). Thus, CPI may arise even below the full employment (YF) stage.

Causes of Post-Push Inflation

It is the cost factors that pull the prices upward. One of the important causes of price rise is the rise in price of raw materials. For instance, by an administrative order the government may hike the price of petrol or diesel or freight rate. Firms buy these inputs now at a higher price. This leads to an upward pressure on cost of production.

Not only this, CPI is often imported from outside the economy. Increase in the price of petrol by OPEC compels the government to increase the price of petrol and diesel. These two important raw materials are needed by every sector, especially the transport sector. As a result, trans port costs go up resulting in higher general price level.

Again, CPI may be induced by wage-push inflation or profit-push inflation. Trade unions demand higher money wages as a compensation against inflationary price rise. If increase in money wages exceeds labour productivity, aggregate supply will shift upward and leftward. Firms often exercise power by pushing prices up independently of consumer demand to expand their profit margins.

Fiscal policy changes, such as increase in tax rates also leads to an upward pressure in cost of production. For instance, an overall increase in excise tax of mass consumption goods is definitely inflationary. That is why government is then accused of causing inflation.

Finally, production setbacks may result in decreases in output. Natural disaster, gradual exhaustion of natural resources, work stop pages, electric power cuts, etc., may cause aggregate output to decline. In the midst of this output reduction, artificial scarcity of any goods created by traders and hoarders just simply ignite the situation.

Inefficiency, corruption, mismanagement of the economy may also be the other; reasons. Thus, inflation is caused by the interplay of various factors. A particular factor cannot be held responsible for any inflationary price rise.

EFFECTS OF INFLATION

When price level goes up, there is both a gainer and a loser. To evaluate the consequence of inflation, one must identify the nature of inflation which may be anticipated and unanticipated. If inflation is anticipated, people can adjust with the new situation and costs of inflation to the society will be smaller.

Inflation affects different aspects of the economy. In this chapter, we will explore the effects of inflation on production activities and the distribution of wealth.

Effects of Inflation on Production

Inflation has the following effects on production activities:

- Inflation may or may not result in an increase in production
- As long as the economy does not reach the full employment stage, inflation has a favorable effect on production
- Usually, as the price level increases, profits increase too
- During inflation, businessmen tend to raise the prices of their products to earn better profits
- However, if the wages and production costs start rising rapidly, then this favorable effect of inflation does not last long
- If the inflation in an economy is of the cost-push type, then the inflationary situation usually leads to a fall in production
- There is no direct correlation between prices and output

Effects of Inflation on the Distribution of Wealth

Inflation has the following effects on the distribution of wealth:

- Usually, during inflation, most people experience a rise in their income levels
- Some people might gain at the cost of others. As the sellers will be able to sell the goods at a higher rate to its customers due to inflation.
- A certain set of people gain because their money income rises faster than the prices
- A different set of people lose because prices rise faster than their incomes during inflation

Effects of Inflation on Different Categories of People

Let's look at how inflation affects different categories of people.

Debtors and Creditors

- During inflation, borrowers tend to gain. Hence, lenders tend to lose.

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- Borrowers gain because they repay less in real terms as compared to when they had borrowed the money
- Lenders lose because when they receive repayment of their debts, the real value of their money declines by the amount of increase in the price levels
- In other terms, a borrower receives 'dear rupees' but pays back 'cheap rupees'.

Bond and Debenture Holders

- Debenture and Bond Holders earn fixed income on their investments.
- Therefore, when the price levels rise, they suffer a reduction in real income.
- Beneficiaries of life insurance programs also suffer badly because the real value of their savings deteriorates.

Investors

During inflation, businesses have an opportunity to earn good profits. Therefore, people who invest in shares during inflation tend to gain. As the businesses earn higher profits, they usually distribute the profit among investor and shareholders too.

Salaried People and Wage-earners

During inflation, people earning a fixed income face a lot of damage because the rate of increase in wages is always behind the rate of increase in prices.

Therefore, inflation results in a drop in the real purchasing power of people earning a fixed income. Hence, people earning a flexible income tend to gain during inflationary periods.

Profit Earners, Speculators, and Black Marketeers

- During inflation, the profit-earners gain.
- Businessmen also raise the prices of their products and earn bigger profits.
- Speculators gain by inflation, especially when the prices of factors of production increase too.
- Black marketeers tend to gain since the price of products increases with time.

CHECK YOUR PROGRESS

1. **What do you mean by inflation?**
2. **What do you mean by demand pull and cost push inflation?**
3. **What are the major causes of inflation?**
4. **What the basic features of business cycle?**
5. **Why business cycle is an important concept in economics?**

4.8 ADVANTAGES AND DISADVANTAGES OF INFLATION

Advantages of inflation are as follows:

1. **Deflation (a fall in prices – negative inflation) is very harmful**. When prices are falling, people are reluctant to spend money because they feel that goods will

be cheaper in the future; therefore, they keep delaying purchases. Also, deflation increases the real value of debt and reduces the disposable income of individuals who are struggling to pay off their debt. When people take on a debt like a mortgage, they generally expect an inflation rate of 2% to help erode the value of debt over time. If this inflation rate of 2% fails to materialise, their debt burden will be greater than expected. Periods of deflation caused serious problems for the UK in 1920s, Japan in 1990s and 2000s and Eurozone in 2010s.

2. **Moderate inflation enables adjustment of wages.** It is argued a moderate rate of inflation makes it easier to adjust relative wages. For example, it may be difficult to cut nominal wages (workers resent and resist a nominal wage cut). But, if average wages are rising due to moderate inflation, it is easier to increase the wages of productive workers; unproductive workers can have their wages frozen – which is effectively a real wage cut. If we had zero inflation, we could end up with more real wage unemployment, with firms unable to cut wages to attract workers.
3. **Inflation enables adjustment of relative prices.** Similar to the last point, moderate inflation makes it easier to adjust relative prices. This is particularly important for a single currency like the Eurozone. Southern European countries like Italy, Spain and Greece became uncompetitive, leading to large current account deficit. Because Spain and Greece cannot devalue in the Single Currency, they have to cut relative prices to regain competitiveness. With very low inflation in Europe, this means they have to cut prices and cut wages which cause lower growth (due to the effects of deflation). If the Eurozone had moderate inflation, it would be easier for southern Europe to adjust and regain competitive without resorting to deflation.
4. **Inflation can boost growth**. At times of very low inflation, the economy may be stuck in a recession. Arguably targeting a higher rate of inflation can enable a boost in economic growth. This view is controversial. Not all economists would support targeting a higher inflation rate. However, some would target higher inflation, if the economy was stuck in a prolonged recession
5. **Inflation is better than deflation**. The only thing worse than inflation, joke economists, is deflation. A fall in prices can cause an increase in the real debt burden and discourage spending and investment. Deflation was a factor in the Great Depression of the 1930s.

DISADVANTAGES OF INFLATION

Inflation is usually considered to be a problem when the inflation rate rises above 2%. The higher the inflation, the more serious the problem is. In extreme circumstances, hyperinflation can wipe away people's savings and cause great instability, e.g. Germany 1920s, Hungary 1940s, Zimbabwe 2000s. However, in a modern economy, this kind of hyperinflation is rare. Usually, inflation is accompanied with higher interest rates, so savers do not see their savings wiped away. However, inflation can still cause problems.

- High inflation rates tend to cause uncertainty and confusion leading to less investment.
- It is argued that countries with persistently higher inflation, tend to have lower rates of investment and economic growth.

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- Higher inflation leads to lower international competitiveness, leading to fewer exports and a deterioration in the current account balance of payments.
- Inflation and stagnant wage growth lead to declining incomes.

Inflation can reduce the real value of savings, which might particularly affect old people who live on savings.

- Inflation will reduce the real value of government bonds.
- Investors will demand higher bond yields to compensate; this will increase the cost of debt interest payments.
- Hyper-inflation can destroy an economy.
- If inflation gets out of hand, it can create a vicious cycle, where rising inflation, causes higher inflation expectations, which in turn pushes prices even higher.
- Hyper-inflation can wipe out the savings of the middle-classes, and redistribute wealth and income towards those with debt and assets and property.

Then there is the rise in inequality between large and small firms, which is likely to be felt by individual employees

- For individual, all this could impact demand over time.
- A deeper look suggests that the low level of fiscal spending could leave behind other problems, such as rising inequality and inflation. It could stoke inflation.
- India has had trouble in the past with rising prices of services.

INFLATION	
ADVANTAGES	**DISADVANTAGES**
Modern inflation enables economic growth.	Creates uncertainty and lower investment.
Modern inflation allows adjustment of real wages	High inflation often leads to lower growth and less stability
Moderate inflation allows adjustment of prices	Reduces international competitiveness
Inflation is better than deflation- which can cause recession.	To reduce inflation can lead to recession.
	Fall in value of savings
	If wages don't keep up, lower real wages.

4.9 INTRODUCTION AND DEFINITION OF DEFLATION

Many people accept inflation as a fact of life. However, under certain economic situations, the opposite phenomenon actually takes place, and is known as "deflation."

Deflation is the reduction of prices of goods, and although deflation may seem like a good thing when you're standing at the checkout counter, it's not. Rather, deflation is an indication that economic conditions are deteriorating. Deflation is usually associated with significant unemployment, which is only corrected after wages drop considerably. Further-

more, businesses' profits drop significantly during periods of deflation, making it more difficult to raise additional capital to expand and develop new technologies.

"Deflation" is often confused with "disinflation." While deflation represents a decrease in the prices of goods and services throughout the economy, disinflation represents a situation where inflation increases at a slower rate. However, disinflation does not usually precede a period of deflation. In fact, deflation is a rare phenomenon that does not occur in the course of a normal economic cycle, and therefore, investors must recognize it as a sign that something is severely wrong with the state of the economy.

4.10 CAUSES AND EFFECTS OF DEFLATION

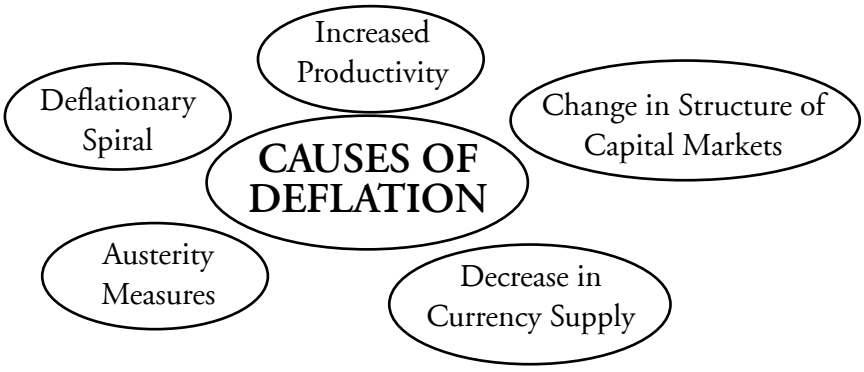
Deflation can be caused by a number of factors, all of which stem from a shift in the supply-demand curve. Remember, the prices of all goods and services are heavily affected by a change in the supply and demand, which means that if demand drops in relation to supply, prices will have to drop accordingly. Also, a change in the supply and demand of a nation's currency plays an instrumental role in setting the prices of the country's goods and services.

Although there are many reasons why deflation may take place, the following causes seem to play the largest roles:

1. **Change in Structure of Capital Markets:** When many different companies are selling the same goods or services, they will typically lower their prices as a means to compete. Often, the capital structure of the economy will change and companies will have easier access to debt and equity markets, which they can use to fund new businesses or improve productivity.

   There are multiple reasons why companies will have an easier time raising capital, such as declining interest rates, changing banking policies, or a change in investors' aversion to risk. However, after they have utilized this new capital to increase productivity, they are going to have to reduce their prices to reflect the increased supply of products, which can result in deflation.

2. **Increased Productivity:** Innovative solutions and new processes help increase efficiency, which ultimately leads to lower prices. Although some innovations only affect the productivity of certain industries, others may have a profound effect on the entire economy.



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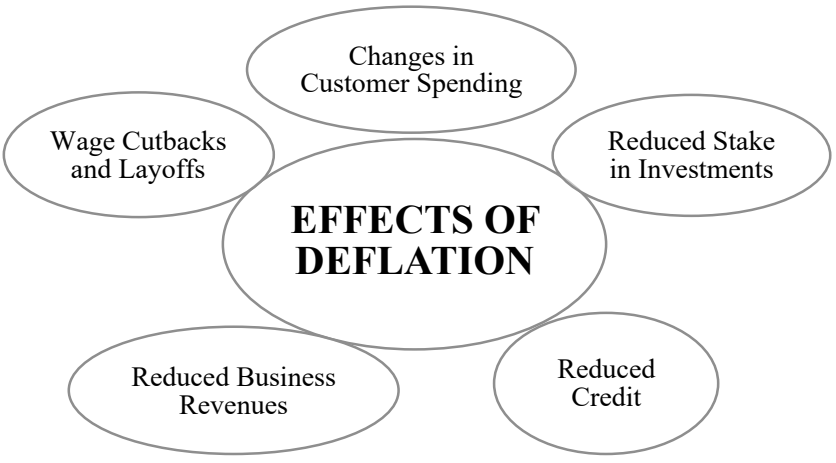
For example, after the Soviet Union collapsed in 1991, many of the countries that formed as a result struggled to get back on track. In order to make a living, many citizens were willing to work for very low prices, and as companies in the United States outsourced work to these countries, they were able to significantly reduce their operating expenses and bolster productivity. Inevitably, this increased the supply of goods and decreased their cost, which led to a period of deflation near the end of the 20th century.

3. **Decrease in Currency Supply:** As the currency supply decreases, prices will decrease so that people can afford goods. How can currency supplies decrease? One common reason is through central banking systems.
4. **Austerity Measures:** Deflation can be the result of decreased governmental, business, or consumer spending, which means government spending cuts can lead to periods of significant deflation. For example, when Spain initiated austerity measures in 2010, pre-existing deflation began to spiral out of control.
5. **Deflationary Spiral:** Once deflation has shown its ugly head, it can be very difficult to get the economy under control tor a number of reasons. First of all, when consumers start cutting spending, business profits decrease. Unfortunately, this means that businesses have to reduce wages and cut their own purchases. In turn, this short-circuits spending in other sectors, as other businesses and wage-earners have less money to spend. As horrible as (h is sounds, it continues to get worse and the cycle can be very difficult to break.

EFFECTS OF DEFLATION

Deflation can be compared to a terrible winter: The damage can be intense and be experienced for many seasons afterwards. Unfortunately, some nations never fully recover from the damage caused by deflation. Hong Kong, for example, never recovered from the deflationary effects that gripped the Asian economy in 2002.

Deflation may have any of the following impacts on an economy:



1. **Reduced Business Revenues:** Businesses must significantly reduce the prices of their products in order to stay competitive. Obviously, as they reduce their prices,

their revenues start to drop. Business revenues frequently fall and recover, but deflationary cycles tend to repeat themselves multiple times.

Unfortunately, this means businesses will need to increasingly cut their prices as the period of deflation continues. Although these businesses operate with improved production efficiency, their profit margins will eventually drop, as savings from material costs are offset by reduced revenues.

2. **Wage Cutbacks and Layoffs:** When revenues start to drop, companies need to find ways to reduce their expenses to meet their bottom line. They can make these cuts by reducing wages and cutting positions. Understandably, this exacerbates the cycle of inflation, as more would-be consumers have less to spend.
3. **Changes in Customer Spending:** The relationship between deflation and consumer spending is complex and often difficult to predict. When the economy undergoes a period of deflation, customers often take advantage of the substantially lower prices. Initially, consumer spending may increase greatly; however, once businesses start looking for ways to bolster their bottom line, consumers who have lost their jobs or taken pay cuts must start reducing their spending as well. Of course, when they reduce their spending, the cycle of deflation worsens.
4. **Reduced Stake in Investments:** When the economy goes through a series of deflation, investors tend to view cash as one of their best possible investments. Investors will watch their money grow simply by holding onto it. Additionally, the interest rates investors earn often decrease significantly as central banks attempt to fight deflation by reducing interest rates, which in turn reduces the amount of money they have available for spending.

   In the meantime, many other investments may yield a negative return or are highly volatile, since investors are scared and companies aren't posting profits. As investors pull out of stocks, the stock market inevitably drops.
5. **Reduced Credit:** When deflation rears its head, financial lenders quickly start to pull the plugs on many of their lending operations for a variety of reasons. First of all, as assets such as houses decline in value, customers cannot back their debt with the same collateral. In the event a borrower is unable to make their debt obligations, the lenders will be unable to recover their full investment through foreclosures or property seizures.

   Also, lenders realize the financial position of borrowers is more likely to change as employers start cutting their workforce. Central banks will try to reduce interest rates to encourage customers to borrow and spend more, but many of them will still not be eligible for loans.

4.11 WAYS TO FIX DEFLATION

Businesses lay off workers and the unemployed have more difficulty finding work. Eventually, they default on debts, causing bankruptcies and credit and liquidity shortages known as a deflationary spiral. This scenario is scary, and policymakers will do whatever is necessary to avoid falling into such an economic hole. Here are some ways that governments fight deflation.

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Monetary Policy Tools

- **Lowering bank reserve limits:** In a fractional reserve banking system, as in the U.S. and other developed nations, banks use deposits to create new loans. By regulation, they are only allowed to do so to the extent of the reserve limit. That limit has typically been set at around 5-10% in the U.S., meaning that for every $100 deposited with a bank, it can loan out $90 and keep $10 as reserves. Of that new $90, $81 can be turned into new loans and $9 kept as reserves, and so on, until the original deposit creates $1000 worth of new credit money: $100 / 0.10 multiplier. If the reserve limit is relaxed to 5%, twice as much credit would be generated, incentivizing new loans for investment and consumption.
- As of March 26, 2020, the Federal Reserve reduced the reserve requirement of most commercial banks to 0% and eliminated reserve requirements for all depository institutions. The purpose of this decision was to shift to an ample reserves regime. This removes the need for thousands of depository institutions to maintain balances in accounts at Reserve Banks to satisfy reserve requirements, thereby freeing up liquidity in the banking system to support lending to households and businesses.
- **Open market operations (OMO):** Central banks buy treasury securities in the open market and, in return, issue newly created money to the seller. This increases the money supply and encourages people to spend those dollars. The quantity theory of money states that like any other good, the price of money is determined by its supply and demand. If the supply of money is increased, it should become less expensive: each dollar would buy less stuff and so prices would go up instead of down.
- **Lowering the target interest rate:** Central banks can lower the target interest rate on the short-term funds that are lent to and among the financial sector. If this rate is high, it will cost the financial sector more to borrow the funds needed to meet day-to-day operations and obligations. Short-term interest rates also influence longer-term rates, so if the target rate is raised, long-term money, such as mortgage loans, also becomes more expensive. Lowering rates makes it cheaper to borrow money and encourages new investment using borrowed money. It also encourages individuals to buy a home by reducing monthly costs.
- **Quantitative easing:** When nominal interest rates are lowered all the way to zero, central banks must resort to unconventional monetary tools. Quantitative easing (QE) is when private securities are purchased on the open market, beyond just treasuries. Not only does this pump more money into the financial system, but it also bids up the price of financial assets, keeping them from declining further.
- **Negative interest rates:** Another unconventional tool is to set a negative nominal interest rate. A negative interest rate policy (NIRP) effectively means that depositors must pay, rather than receive interest on deposits. If it becomes costly to hold on to money, it should encourage spending of that money on consumption, or investment in assets or projects that earn a positive return.

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Fiscal Policy Tools

- **Increasing government spending:** Keynesian economists advocate using fiscal policy to spur aggregate demand and pull an economy out of a deflationary period. If individuals and businesses stop spending, there is no incentive for firms to produce and employ people. The government can step in as a spender of last resort with hopes of keeping production going along with employment. The government can even borrow money to spend by incurring a fiscal deficit. Businesses and their employees will use that government money to spend and invest until prices begin to rise again with demand.
- **Cutting tax rates:** If governments cut taxes, more income will stay in the pockets of businesses and their employees, who will feel a wealth effect and spend money that was previously earmarked for taxes. One risk of lowering taxes during a recessionary period is that overall tax revenues will drop, which may force the government to curtail spending and even cease operations of basic services. There has been conflicting evidence as to whether or not general and specific tax cuts actually stimulate the real economy.

While fighting deflation is a bit more difficult than containing inflation, governments and central banks have an array of tools they can use to stimulate demand and economic growth. The risk of a deflationary spiral can lead to a cascade of negative outcomes that hurt everyone. By using expansionary fiscal and monetary tools, including some unconventional methods, falling prices can be reversed and aggregate demand restored.

4.12 ADVANTAGES AND DISADVANTAGES OF DEFLATION

1. Due to deflation prices of many goods and services fall which in turn leads to lower expenditure bill for all class of people and due to this middle and poor class people tend to be happy as their monthly budget gets reduced drastically.
2. Another advantage of deflation is for those people who are looking to take fresh loan because in times of deflation rate of interest is very low as central bank try to control deflation by reducing rate of interest so that people invest less in fixed deposits and spend more which in turn will increase the money supply leading to control in deflation and hence people who are looking for taking loan or debt for housing or business are benefited due to lower interest rates during deflation.
3. Deflation hits hard rich people as compared to poor people because in case of deflation value of majority of assets falls and rich people hold more assets as compared to poor people and hence they are at more loss as compared to poor people. In a way one can say that deflation helps in narrowing the gap between the rich and poor.

DISADVANTAGES OF DEFLATION

1. The biggest disadvantage of deflation is that it creates problem of unemployment because due to deflation prices of goods falls which results in lower profits for companies which in turn force the companies to reduce the production of goods by cutting down production in factories or even closing some factories which in

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turn results in mass scale layoff of workers and since economy is facing deflationary pressure there is no scope for new employment opportunities and hence percentage of unemployed people rise significantly in deflation

2. Deflation initially looks good due to declining price of everything but as time passes by the deflation shows its true devastation in the form of lower wages or salaries to employees as companies don't have profits to pay its employees, lower production and lower growth which ultimately affect everyone and it leads to vicious circle where no company or individual wants to invest and everyone wants to keep cash with them.
3. Individuals or companies who have already taken loan are worst hit because these people would be paying higher rate of interest as time of value of money work in reverse direction in case of deflation. In simple words cash is the king in deflationary i times as holders of cash are benefited and holders of assets are at disadvantageous because the value of assets keeps declining in case of deflation.

4.13 10 THINGS YOU SHOULD AND SHOULD NOT DO DURING DEFLATION

1. **One should not invest in real estate:** The worst thing about real estate is its lack of liquidity during a bear market. At least in the stock market, when your stock is down 60 percent and you realize you've made a horrendous mistake, you can call your broker and get out (unless you're a mutual fund, insurance company or other institution with millions of shares, in which case, you're stuck). With real estate, you can't pick up the phone and sell. You need to find a buyer for your house in order to sell it. In a depression, buyers just go away. Mom and Pop move in with the kids, or the kids move in with Mom and Pop. People start living in their offices or moving their offices into their living quarters. Businesses close down. In time, there is a massive glut of real estate.
2. **One should you prepare for a change in politics:** At some point during a financial crisis, money flows typically become a political issue. An individual should keep a sharp eye on political trends in your home country. In severe economic times, governments have been known to ban foreign investment, demand capital repatriation, outlaw money transfers abroad, close banks, freeze bank accounts, restrict or seize private pensions, raise taxes, fix prices and impose currency exchange values. They have been known to use force to change the course of who gets hurt and who is spared, which means that the prudent are punished and the thriftless are rewarded, reversing the result from what it would be according to who deserves to be spared or get hurt. In extreme cases, such as when authoritarians assume power, they simply appropriate or take de facto control of an individual's property.

   One cannot anticipate every possible law, regulation or political event that will be implemented to thwart your attempt at safety, liquidity and solvency. This is why one must plan ahead and pay attention.
3. **One should not invest in commercial bonds:** If there is one bit of conventional wisdom that we hear repeatedly with respect to investing for a deflationary

depression, it is that long-term bonds are the best possible investment. This assertion is wrong. Any bond issued by a borrower who cannot pay goes to zero in a depression. In the Great Depression, bonds of many companies, municipalities and foreign governments were crushed. They became wallpaper as their issuers went bankrupt and defaulted. Bonds of suspect issuers also went way down, at least for a time. Understand that in a crash, no one knows its depth, and almost everyone becomes afraid. That makes investors sell bonds of any issuers that they fear could default. Even when people trust the bonds they own, they are sometimes forced to sell them to raise cash to live on. For this reason, even the safest bonds can go down, at least temporarily, as AAA bonds did in 1931 and 1932.

4. **One should take precautions if you run a business:** Avoid long-term employment contracts with employees. Try to locate in a state with "at-will" employment laws. Red tape and legal impediments to firing could bankrupt your company in a financial crunch, thus putting everyone in your company out of work.

   If an individual run a business that normally carries a large business inventory (such as an auto or boat dealership), try to reduce it. If a business requires certain manufactured specialty items that may be hard to obtain in a depression, stock up. Finally, plan how an employer will take advantage of the next major bottom in the economy. Positioning your company properly at that time could ensure success for decades to come.

5. **One should not invest in collectibles:** Collecting for investment purposes is almost always foolish. Never buy anything marketed as a collectible. The chances of losing money when collectability is priced into an item are huge. Usually, collecting trends are fads. They might be short-run or long-run fads, but they eventually dissolve.

6. **One should do anything with respect to your employment:** If you have no special reason to believe that the company you work for will prosper so much in a contracting economy that its stock will rise in a bear market, then cash out any stock or stock options that your company has issued to owner of company.

7. **One Should not you speculate in stocks:** Perhaps the number one precaution to take at the start of a deflationary crash is to make sure that your investment capital is not invested "long" in stocks, stock mutual funds, stock index futures, stock options or any other equity-based investment or speculation.

8. **One should call in loans and pay off your debt:** Have you lent money to friends, relatives or co-workers? The odds of collecting any of these debts are usually slim to none, but if you can prod your personal debtors into paying you back before they get further strapped for cash, it will not only help you but it will also give you some additional wherewithal to help those very same people if they become destitute later.

   If at all possible, remain or become debt-free. Being debt-free means that you are freer, period. You don't have to sweat credit card payments. You don't have to sweat home or auto repossession or loss of your business. You don't have to work 6 percent more or 10 percent more or 18 percent more just to stay even.

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9 **One should not invest in commodities, such as crude oil:** Pay particular attention to what happened in 1929-1932, the three years of intense deflation in which the stock market crashed. As you can see, commodities crashed, too.

You can get rich being short commodity futures in a deflationary crash. This is a player's game, though, and I am not about to urge a typical investor to follow that course. If you are a seasoned commodity trader, avoid the long side and use rallies to sell short. Make sure that your broker keeps your liquid funds in T-bills or an equally safe medium.

There can be exceptions to the broad trend. A commodity can rise against the trend on a war, a war scare, a shortage or a disruption of transport. Oil is an example of a commodity with that type of risk. This commodity should have nowhere to go but down during a depression.

10. **One should you invest in cash:** For those among the public who have recently become concerned that being fully invested in one stock or stock fund is not risk-free, the analysts' battle cry is "diversification." They recommend having your assets spread out in numerous different stocks, numerous different stock funds and/ or numerous different (foreign) stock markets. Advocates of junk bonds likewise counsel prospective investors that having lots of different issues will reduce risk.

4.14 CHAPTER SUMMARY

A business cycle relates to economic or production fluctuations during a period of months or years. Such fluctuations generally occur during a long-term trend, between periods of rapid economic growth and a decline. Using the growth rate of real gross domestic products, the fluctuations in business cycles do not follow a predictable pattern.

The timing of a business cycle is random and occurs in four phases. The first phase involves a contraction or a period where economic activity begins to slow. The turning point of a contraction brings about an expansion phase, which relates to a quicker pace in economic activity. The peak of a business cycle is the period before economic activities face another contraction. If a contraction during a business cycle is severe enough and business activity bottoms out, a recession occurs.

Inflation is the decline of purchasing power of a given currency over time. A quantitative estimate of the rate at which the decline in purchasing power occurs can be reflected in the increase of an average price level of a basket of selected goods and services in an economy over some period of time. The rise in the general level of prices, often expressed as a percentage, means that a unit of currency effectively buys less than it did in prior periods.

Inflation is mainly caused by excess demand/ or decline in aggregate supply or output. Former leads to a rightward shift of the aggregate demand curve while the latter causes aggregate supply curve to shift left ward. Former is called demand-pull inflation (DPI), and the latter is called cost-push inflation (CPI). When price level goes up, there is both a gainer and a loser. To evaluate the consequence of inflation, one must identify the nature of inflation which may be anticipated and unanticipated. If inflation is anticipated, people can adjust with the new situation and costs of inflation to the society will be smaller.

Deflation is a contraction in the supply of circulated money within an economy, and therefore the opposite of inflation. In times of deflation, the purchasing power of currency and wages arc higher than they otherwise would have been. This is distinct from but similar to price deflation, which is a general decrease in the price level, though the two terms are often mistaken for each other and used interchangeably. In effect, deflation causes the nominal costs of capital, labour, goods and services to be lower than if the money supply did not shrink. While price deflation is often a side effect of monetary deflation, this is not always the case.

Deflation occurs when the supply of money increases slower than the supply of goods and services we purchase with it. In this situation, there will be more demand for money than for goods and services. Prices will decline because money will be worth more as businesses will accept lower prices in order to get what money is out there. Moreover, if your money continues to rise in value faster than the cost of stuff you can buy with it, you are more likely to hold onto your cash, because by waiting, you figure you can buy even more a little later when your money is worth even more.

4.15 REVIEW QUESTIONS

SHORT ANSWER TYPE QUESTIONS

1. **What are the causes of business cycle?**
2. **Inflation can boost growth. Explain it in your words.**
3. **Define and explain in detail 'Deflation'.**
4. **Elaborate on the effects and causes of deflation.**
5. **The biggest disadvantage of deflation is that it creates problem of unemployment. How?**

LONG ANSWER TYPE QUESTIONS

1. **Explain 10 things that should and should not be done during deflation.**
2. **What are the economic advantages of a boom-best cycle?**
3. **What are the phases of business cycles?**
4. **Write in detail on the disadvantages of Inflation.**
5. **Explain in detail the causes of inflation with suitable diagrams.**

4.16 MULTIPLE CHOICE QUESTIONS

1. **Boom and bust was a large factor in the speed of the _____ and the technological advances of 19th century Britain.**
   a. World war
   b. Industrial revolution
   c. French revolution
   d. None of the above

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2. **Business cycles are _____ in length or intensity.**
   a. Uniform
   b. same/ constant
   c. not uniform
   d. None of the above
3. **When the economy is in the _____ stage, people are optimistic and confident about the future, according to the theory.**
   a. recession
   b. Depression
   c. recovery
   d. None of the above
4. **Inflation is usually considered to be a problem when the inflation rate rises above_____.**
   a. 5%
   b. 2%
   c. 1%
   d. 0.5%
5. **If inflation is_____, people can adjust with the new situation and costs of inflation to the society will be smaller.**
   a. Anticipated
   b. Unanticipated
   c. Stable
   d. Unstable
6. **At times of _____ inflation, the economy may be stuck in a recession.**
   a. Very high
   b. High
   c. Stable
   d. Very low
7. **Due to _____prices of many goods and services fall which in turn leads to lower expenditure bill for all class of people.**
   a. Inflation
   b. Deflation
   c. Stability
   d. None of the above
8. **Central banks _____ treasury securities in the open market and, in return, issue newly created money to the seller.**
   a. sell

b. buy

c. Both of above

d. None of the above

9. Deflation is a _____ in the supply of circulated money within an economy, and therefore the opposite of inflation.

a. Expansion

b. Stability

c. Contraction

d. None of the above

10. When the economy goes through a series of_____ , investors tend to view cash as one of their best possible investments.

a. Inflation

b. Recession

c. Deflation

d. Stability

♦♦♦♦♦

UNIT V

ECONOMIC POLICIES AND EXTERNAL ENVIRONMENT

STRUCTURE

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5.1 LEARNING OBJECTIVE

This should help you understand what is behind the policy. Policy makers undertake two main types of economic policy:

- Fiscal policy: Changes in government spending or taxation.
- Monetary policy: Changes in the money supply to alter the interest rate (usually to influence the rate of inflation).
- Understand about the foreign trade that boosts the country's economy.
- Understand the outside factors that impacts the operations of a business.
- Advantages and Disadvantages of Foreign Trade.

5.2 INTRODUCTION

A central issue in macroeconomics is whether or not markets, left alone, automatically bring about long run economic equilibrium.

If the free operation of market forces eventually resulted in a full employment level of national income with stable prices and economic growth, there would be no need for government intervention in the macro economy no need for fiscal monetary exchange rate and supply side policies.

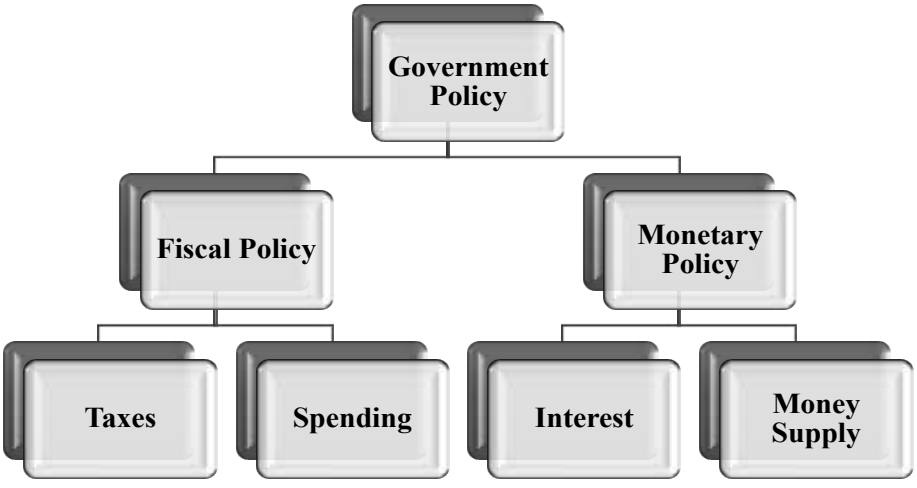
The reality is that all governments intervene through their macroeconomic policies in a bid to achieve certain policy objectives and improve the overall performance of the economy.

Meaning

Macroeconomic Policy is the set of government rules and regulations to control or stimulate the aggregate indicators of an economy frames the macroeconomic policy. Aggregate indicators involve national income, money supply, inflation, unemployment rate, growth rate, interest rate and many more.

Types of Micro Economic Policies

The Micro Economic policies are dived into fiscal policies and monetary policies.



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which are applied by the government in order to manage economy of the country.

Effects of Monetary and Fiscal Policy on the Economy

There are some differences in the economic effects of monetary and fiscal policy, on the composition of output, the effectiveness of the two kinds of policy in meeting the government's macroeconomic objectives.

Effects of Policy on the Composition of National Output

Monetary policy is often seen as something of a blunt policy instrument - affecting all sectors of the economy although in different ways and with a variable impact. In contrast, fiscal policy can be targeted to affect certain groups.

1. **Monetary Policy Expansion**

   Lower interest rates will lead to an increase in consumer and business capital spending both of which increases national income. Since, investment spending results in a larger capital stock.

2. **Fiscal Policy Expansion**

   An expansion in fiscal policy (i.e., an increase in government spending) adds directly to AD but if financed by higher government borrowing, this may result in higher interest rates and lower investment.

5.3 CREATION OF CREDIT

One of the important functions of commercial bank is the creation of credit. The process of credit creation occurs when bank accepts deposits and provides loans and advances from these deposits.

Credit creation is the multiple expansions of banks demand deposits. It is an open secret now that banks advance a major portion of their deposits to the borrowers and keep smaller parts of deposits to the customers on demand.

Meaning

The word credit is derived from a Latin word 'credo', which means 'I believe'. In a sense, the words credit, debt and loan are synonymous; credit or loan is the liability of the debtor and the asset of the bank.

Credit creation refers to the unique power of the banks lo multiply loans and advances, and hence deposits. The commercial banks create multiple expansions of their bank deposits and due to this, these are called the factories of credit.

Definition of Credit

1. **Kent**

   "Credit may be defined as the right to receive payment or the obligation to make payment on demand or at some future tune on account of an immediate transfer of goods"

2. **Newlyn**

   "Credit creation refers to the power of commercial banks to expand secondary deposits cither through the process of making loans or through investment in securities."

3. **Halm**

   " I he creation of derivative deposits is identical with what is commonly called the creation of credit."

Modes of Credit Creation

1. **Cash Deposits by Customers:** When customer deposits money with the bank, they are called as Primary deposits. These deposits are also called as "cash deposits." Under the RBI Act of 1935, every commercial bank has to keep certain amount of deposit as reserve with RBI. Deposited amount is not withdrawn immediately by depositor so bank provides that amount as loans & advances.
2. **Bank Loans and Investments:** These are termed as derivative or active deposits. Derivative deposits refer to the deposits created by the banking system while performing other fundamental functions of loans. When any bank sanctions a loan to its customer it does not make a cash payment to the party concerned but opens a new account i.e. derivative deposits, in the name of borrower.

Limitation

1. **Restriction by the Central Bank:** If the banks have large deposits, they can create more credit and if they have small deposits then their power of credit creation will be limited
2. **Habits of the Customers:** 11 the people are habitual in using the cheques then the volume of credit will expand on the other it will be contracted.
3. **The Cash Ratio:** Every bank keeps adequate cash reserves for meeting the cash requirements of its customers. The bank will not allow its cash ratio to fall below a certain minimum level.
4. **The Collateral Security Available:** The bank advances loan to the borrowers against some kind of Collateral Security. If these are not available then the power of credit creation will be restricted.

5.4 MONITORY AND FISCAL POLICY

Monetary policy is concerned with the changes in the supply of money and credit. It refers to the policy measures undertaken by the government or the central bank to influence the availability, cost and use of money and credit with the help of monetary techniques to achieve specific objectives.

Meaning

The term monetary policy is also known as the 'credit policy' or called RBI's money management policy in India.

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From the name itself, it is understood that it is related to the demand and the supply of money.

Definitions

1. **Harry Johnson:** "A policy employing the central banks as an instrument for achieving the objectives of general economic policy is a monetary policy".
2. **A.G. Hart:** "A policy which influences the public stock of money substitute of public demand for such assets of both that is policy which influences public liquidity position is known as a monetary policy".
3. **R.P. Kent:** "Monetary policy is the management of the expansion and contraction of the volume of money in circulation for the explicit purpose of attaining a specific objective such as full employment".
4. **A J. Shapiro:** "The Monetary Policy is the exercise of the central bank's control over the money supply as an instrument for achieving the objectives of economic policy".

Objectives of Monitory Policy

1. **Generation of Employment**

   The main objective of monetary policy is to achieve and maintain full employment in the economy. Full employment simply means that everyone who is able and willing to work at the existing rate of wages gets a job or employment.

2. **Price Stability:**

   Monetary policy should be to maintain price stability because it is the price instability that unleashes the conditions of boom and depression. Rising and falling prices give birth to social Injustice in a country and thereby give rise to ugly problems rise to ugly problems of economic and social upheavals.

3. **Exchange Rate Stability**

   Exchange stability implies that there should not be too much rise or fall in rate of exchange. Throughout nineteenth century and the beginning of twentieth century when gold standard was prevalent in many countries, main objective of the monetary policy was to maintain stability in the foreign exchange rate.

4. **Balanced Economic Growth Rate**

   In India, the mam objective of monetary policy is to promote rapid economic growth' Economic growth implies the creation of new employment opportunities and continuous rise in the level of employment quantitatively and qualitatively.

Importance of Monitory Policy

1. **Dependence on Cash and Credit:** Monetary policy mainly uses cash and credit control to achieve objectives of development and growth.
2. **Effect on Inflation:** By denying access to credit or by restraining credit, monetary policy can contain inflationary and expansionary forces.

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3. **Legal Powers:** central banking policy can be effective only if the central bank is fully equipped with necessary legal powers.
4. **Organized Structure:** The structure of financial institutions has to be well organized otherwise the banking policy can have serious limitations.
5. **Dependence of Trade and Commerce:** Effectiveness of monetary policy is dependent on the extent of the dependence of industry and trade on bank finance.

Factors Affecting Monetary Policy

1. **Credit off-Take:** The credit off-take has taken a hit as the interest rates have gone out of reach of many investors. Banks and corporate have requested the RBI to stop further interest rate hikes as they would hurt both individual and corporate borrowers.
2. **Slowdown in Industrial Growth:** The recent Index of Industrial Production data showed that the industrial growth rate has dropped quite a bit compared to last year. The high base effect of last year is one of the reasons for the lower IIP number.
3. **Expected RBI Moves:** The banking and corporate sectors have requested the RBI to stop further tightening as it has started hurting credit off-take. However, since the inflation rate is still ruling at high levels, the RBI is expected to maintain a tough stance and raise the interest rates further by 25 basis points in the coming monetary policy review.
4. **Prospects for the Real Sectors, Especially Growth in GDP:** The real GDP growth in India since 2004 has been more than 6.5% annually. With this benchmark, monetary policy for future years is drafted by the government.
5. **Inflationary Expectations:** Generally, inflationary trends depend on international oil prices and commodity prices. The policy must assume no significant variations in supply of oil and commodity prices.
6. **Global Development:** It is essential to recognize that interest rates in major sectors of the economy will continue to harden and adjustments in currency imbalances will have to be considered.

Types of Monetary Policy

1. **Expansionary Monetary Policy:** An expansionary monetary policy, also known as easy monetary policy, aims at expanding economic activities by encouraging spending on goods and services by making credit available in larger quantities and cheaper rates.
2. **Contractionary Policy:** Conversely, or tight monetary policy aims at contracting economic activities with the objectives of containing inflation by reducing the amount of credit and increasing the cost of obtaining it.
3. **Countercyclical Monetary Policy:** A Countercyclical monetary policy tries to contract economic activities during an expansionary phase and expanding economic activities in a Contractionary phase of a business cycle.
4. **Rule Based Monetary Policy:** Under, a rule based monetary policy, money supply and related variables arc controlled by pre-determined rules, nouns and standards.

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5. **Discretionary Monetary Policy:** When the central bank, rather than getting constrained by the pre-set rule, after assessing the emerging economic scenario and using its own judgment, changes the values of money supply and related variables then the monetary policy is considered to be discretionary.

Scope

1. **Long-run Neutrality of Money:** It is widely agreed that in the long run - after all adjustments in the economy have worked through - a change in the quantity of money in the economy will be reflected in a change in the general level of prices. But it will not induce permanent changes in real variables such as real output or unemployment.
2. **Inflation-A Monetary Phenomenon:** In the long run a central bank can only contribute to raising the growth potential of the economy by maintaining an environment of stable prices. It cannot enhance economic growth by expanding the money supply or keeping short-term interest rates at a level inconsistent with price stability.

Instruments of Monitory Policy

1. **Reserve Requirement:** The Central Bank may require Deposit Money Banks to hold a fraction (or a combination) of their deposit liabilities (reserves) as vault cash and or deposits with it.
2. **Open Market Operations:** The Central Bank buys or sells securities to the banking and non-banking public (that is in the open market). One such security is Treasury Bills.
3. **Lending by the Central Bank:** The Central Bank sometimes provide credit to Deposit Money Banks, thus affecting the level of reserves and hence the monetary base.
4. **Interest Rate:** The Central Bank lends to financially sound Deposit Money Banks at a most favourable rate of interest, called the minimum rediscount rate. The MRR sets the floor for the interest rate regime in the money market (the nominal anchor rate) and thereby affects the supply of credit.
5. **Direct Credit Control:** The Central Bank can direct Deposit Money Banks on the maximum percentage or amount of loans (credit ceilings) to different economic sectors or activities these are: interest rate caps, liquid asset ratio and issue credit guarantee to preferred loans.
6. **Prudential Guidelines:** The Central Bank may in writing require the Deposit Money Banks to exercise particular care in their operations in order that specified outcomes are realized. Key elements of prudential guidelines remove some discretion from bank management and replace it with rules in decision making.
7. **Exchange Rate:** The balance of payments can be in deficit or in surplus and each of these affect the monetary base, and hence the money supply in one direction or the other. By selling or buying foreign exchange, the Central Bank ensures that the exchange rate is at levels that do not affect domestic money supply in undesired direction, through the balance of payments and the real exchange rate.

Limitations

1. **There exist a Non-Monetized Sector:** In many developing countries, there is an existence of non-monetized economy in large extent. Due to non-monetized sector the progress of commercial banks is not up to the mark.
2. **Excess Non-Banking Financial Institutions (NBFI):** As the economy launch itself into a higher orbit of economic growth and development, the financial sector comes up with great speed. As a result, many Non-Banking Financial Institutions (NBFIs) come up.
3. **Existence of Unorganized Financial Markets:** The financial markets help in implementing the monetary policy in many developing countries the financial markets especially the money markets arc of an unorganized nature and in backward conditions.
4. **Higher Liquidity Hinders Monetary Policy:** In rapidly growing economy, the deposit base of many commercial banks is expanded. This creates excess liquidity in the system.
5. **Money Not Appearing in an Economy:** Large percentage of money never comes in the mainstream economy. Rich people, traders, businessmen and other people prefer to spend rather than to deposit money in the bank.
6. **Time Lag Affects Success of Monetary Policy:** The success of the monetary policy depends on timely implementation of it. However, in many cases unnecessary delay is found in implementation of the monetary policy.
7. **Monetary & Fiscal Policy Lacks Coordination:** As both these policies are prepared and implemented by two different authorities, there is a possibility of non-coordination between these two policies.

CONCEPT OF FISCAL POLICY

The fiscal policy is concerned with the raising of government revenue and incurring of government expenditure. To generate revenue and to incur expenditure, the government frames a policy called budgetary policy or fiscal policy. So, the fiscal policy is concerned with government expenditure and government revenue.

Meaning

The word 'FISC' means 'state treasury' and 'fiscal policy' refers to policy concerning the use of state treasury' or the government finances to achieve certain macroeconomic goals. Fiscal policy is how the government manages its budget. It collects revenue via j taxation that it then spends on various programs. Elected officials guide fiscal policy, redirecting funds from one sector of the population to another.

Definitions

a. **Arthur Smithies:** "A policy under which government uses its expenditure and revenue programs to produce desirable effects and avoid undesirable effects on the national income, production, and employment."

b. **G.K. Shaw:** "Any decision to change the level, composition or timing of government expenditure or to vary the burden structure or frequency of the tax payment."

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c. **Samuelson and Nordhaus:** "Fiscal Policy is the process of shaping taxation and public expenditure to help dampen the swings of the business cycle and contribute to the maintenance of a growing, high-employment economy, free from high or volatile inflation."

Objectives on Fiscal Policy

1. **Development by Effective Mobilization of Resources:** The principal objective of fiscal policy is to ensure rapid economic growth and development. This objective of economic growth and development can be achieved by mobilization of Financial Resources. The financial resources can be mobilized by:
   - Taxation
   - Public Savings
   - Private Savings
2. **Efficient Allocation of Financial Resources:** The central and state governments have tried to make efficient allocation of financial resources. These resources arc allocated for Development Activities which includes expenditure on railways, infrastructure, etc.
3. **Reduction in Inequalities of Income and Wealth:** Fiscal policy aims at achieving equity or social justice by reducing income inequalities among different sections of the society. The direct taxes such as income tax are charged more on the rich people as compared to lower income groups.
4. **Price Stability and Control of Inflation:** One of the main objectives of fiscal policy is to control inflation and stabilize price. Therefore, the government always aims to control the inflation by reducing fiscal deficits, introducing tax savings schemes, Productive use of financial resources, etc.
5. **Employment Generation:** her government is making every possible effort to increase employment in the country through effective fiscal measure. Investment in infrastructure has resulted in direct and indirect employment.
6. **Balanced Regional Development:** There are various incentives from the government for setting up projects in backward areas such as Cash subsidy, Concession in taxes and duties in the form of tax holidays. Finance at concessional interest rates, etc.
7. **Reducing the Deficit in the Balance of Payment:** Fiscal policy attempts to encourage more exports by way of fiscal measures like Exemption of income tax on export earnings, Exemption of central excise duties and customs, Exemption of sales tax and octroi etc. The foreign exchange is also conserved by providing fiscal benefits to import substitute industries, imposing customs duties on imports, etc.
8. **Capital Formation:** The objective of fiscal policy in India is also to increase the rate of capital formation so as to accelerate the rate of economic growth. An underdeveloped country is trapped in vicious (danger) circle of poverty mainly on account of capital deficiency, in order to increase the rate of capital formation.
9. **Increasing National income:** The fiscal policy aims to increase the national income of a country.

10. **Development of Infrastructure:** when the government of the concerned country spends money on the projects like railways, schools, dams, electricity, roads etc to increase the welfare of the citizens, it improves the infrastructure of the country. A improved infrastructure is the key to further speed up the economic growth of the country.
11. **Foreign Exchange Earnings:** when the central government of the country gives incentives like, exemption in custom duty, concession in excise duty while producing things in the domestic markets, it motivates the foreign investors to increase the investment in the domestic country.

Scope of fiscal policy

- **Fiscal instruments**

  The tools of fiscal policy are taxes, expenditure, public debt and a nation's budget. They consist of changes in government revenues or rates of the tax structure so as to encourage or restrict private expenditures on consumption and investment.

  The scope of fiscal policy comprises the fiscal instruments and the target variable. Fiscal instruments are the variables that government can use and maneuverer at its own discretion to achieve stabilized economic goals.

  Fiscal instruments include taxation (direct and indirect), government expenditure, transfer payments (grants and subsidies) and public investment.

- **Target variables**

  The target variables are the macro variables including disposable income, aggregate consumption expenditure, savings and investment, imports and exports, and the level and structure of prices.

  In view of fiscal policy, government budget simultaneously fulfils three functions: allocation, redistribution, and stabilization.

  Governments build infrastructure, invest in research, and provide public services such as education; they levy progressive taxes and provide means-related transfers; and they let the budget oscillate with the cycle in order to smooth out economic fluctuations Opens in new window. Even though these functions are intricately intertwined, fiscal policy nowadays mainly refers to stabilization.

  Fiscal policy is a relative novelty. In the nineteenth and the early twentieth centuries, the primary economic role of a government was to build and maintain roads and other infrastructure, as well as to provide education and postal services (law and order, or defence being arguably not primarily economic functions). Allocation therefore came first.

A. Instruments of fiscal policy

The tools of fiscal policy are taxes, expenditure, public debt and a nation's budget. They consist of changes in government revenues or rates of the tax structure so as to encourage or restrict private expenditures on consumption and investment. Public

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expenditures include normal government expenditures, capital expenditures on public works, relief expenditures, subsidies of various types, transfer payments and social security benefits.

Government expenditures are income-creating while taxes are primarily income-reducing. Management of public debt in most countries has also become an important tool of fiscal policy. It aims at influencing aggregate spending through changes in the holding of liquid assets.

During inflation, fiscal policy aims at controlling excessive aggregate spending, while during depression it aims at making up the deficiency in effective demand for raising the economy from the depths of depression. The following considerations may be noted in the adoption of proper policy instruments.

A Contra Cyclical Budgetary Policy:

The policy of managed budgets implies changing expenditures with constant tax rates or changing tax rates with constant expenditures or a combination of the two. Budget management may be used to tackle depression and inflationary situations. Deliberate attempts are made under this policy to adjust revenues, expenditures and public debt to eliminate unemployment during depression and to achieve price stability in inflation.

Contra cyclical policy implies unbalanced budgets. An unbalanced budget during depression implies deficit spending. To make it more effective, the government may finance its deficits by borrowing from the banks. During periods of inflation, the policy is to have a budget surplus by curtailing government outlays.

The government may partly utilize the budget surplus to retire the outstanding government debt. The belief is that a surplus budget has deflationary effect on national income while a deficit budget tends to be expansionary. During depression when we need an increase in the flow of income, deficit budgets are desired. Conversely, in inflation when we need to check the overflow of income, surplus budgets are favoured.

However, following a contra cyclical budgetary policy is not an easy task. Predicting a recession or an inflationary boom is a difficult job. Adjusting the budget to the fast-changing economic conditions is still more difficult especially when budget is a political decision to be taken after a good deal of delay and discussion. Therefore, emphasis has also to be laid on adjustment of individual items of the budget in order to make it more effective as a contra cyclical fiscal policy weapon.

Taxation Policy:

The structure of tax rates has to be varied in the context of conditions prevailing in an economy. Taxes determine the size of disposable income in the hands of general public and therefore, the quantum of inflationary and deflationary gaps. During depression tax policy has to be such as to encourage private consumption and investment; while during inflation, tax policy must curtail consumption and investment.

During depression, a general reduction in corporate and income taxation has been favoured by economists like Prof. A H. Hansen, M. Kaleeki, and R.A. Musgrave on the ground that this leaves higher disposable incomes with people inducing higher consumption while low corporate taxation encourages 'venture capital', thereby promoting more investment.

But there are others who express grave doubts about the supposed stimulating effect of taxation reliefs on investment. It has been argued that even a heavy reduction in taxes does not alter an entrepreneur's decisions. Mr. Kaleeki expressed the view that the policy of reducing taxes for increasing consumption and stimulating private investment is not a practical solution of the unemployment problem because income-tax cannot be changed so often. The government will have to evolve a long-term fiscal policy.

During inflation, new taxes can be levied to wipe off the surplus purchasing power. Caution, however, should be taken not to raise the taxes so high as to stifle new investment and generate a business recession. Expenditure tax and excise duties are anti-inflationary in character. During inflation fiscal authority should aim at levying such taxes as reduce current excessive demand for specific commodities rather than aggregate demand.

Redistributive taxation is probably the best measure for raising and stabilising the consumption function. Redistributive taxation implies a progressive tax structure. This implies taxing the high-income groups at higher rates, and the middle and low-income groups at lower rates with a view to raising consumer spending.

Public Debt:

A sound programme of public borrowing and debt repayment is a potent weapon to fight inflation and deflation. Government borrowing can be in the form of borrowing from non-bank financial intermediaries, borrowing from commercial banking system, drawings from the central bank or printing of new money.

Borrowing from the public through the sale of bonds and securities which curtails consumption and private investment is anti-inflationary in effect. Borrowing from the banking system is effective during depression if banks have got excess cash reserves. Thus, if unused cash lying with banks can be lent to the government, it will cause a net addition to the national income stream. Withdrawals of balances from treasury are inflationary in nature but these balances are likely to be so small as to be of little importance in the economic system. However, the printing of new money is highly inflationary.

During war, borrowing becomes necessary when inflationary pressures become strong. In a period of inflation, therefore, public debt has to be managed in such a way as reduces the money supply in the economy and curtails credit. The government will do well to retire debt through a budget surplus. During depression, on the opposite, taxes are reduced and public expenditures are increased. Deficits are financed by borrowings from the public, commercial banks or the central bank of the country. The public borrowing of otherwise idle funds will have no adverse effect on consumption or on investment. When budgets are deficit, it is very difficult to retire debts.

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Actually, it pays to accumulate debt during depression and redeem it during a period of expansion. Along with this, the monetary authority (the central bank) must aim at a low bank rate to keep the burden of debt low. Thus, 'public debt becomes an important tool of anti-cyclical policy.

Public Expenditure:

Public expenditure can be used to stimulate production, income and employment. Government expenditure forms a highly significant part of the total expenditure in the economy. A reduction or expansion in it causes significant variations in the total income. It can be instrumental in adjusting consumption and investment to achieve full employment.

During inflation, the best policy is to reduce government expenditure in order to control inflation by giving up such schemes as are justified only during deflation. While expenditures are reduced, attempts are made to increase public revenues to generate a budget surplus. Though it is true that there is a limit beyond which it may not be possible to reduce government spending (say on account of political, and military considerations), yet the government can vary its expenditure to some extent to reduce inflationary pressures.

It is during depression that public spending assumes greater importance. A distinction is made between the concepts of public spending during depression, that is, the concepts of pump priming and the 'compensatory spending'. Pump priming means that a certain volume of public spending will help to revive the economy which will gradually reach satisfactory levels of employment and output. What this volume of spending may be is not specific. The idea is that, when private spending becomes deficient, then a small dose of public spending may prove to be a good starter.

Compensatory spending, on the other hand, means that public spending is undertaken with the clear view to compensating for the decline in private investment. The idea is that when private investment declines, public expenditure should expand and as long as private investment is below normal, public compensatory spending should go on. These expenditures will have multiplier effects of raising the level of income, output and employment. The compensatory public expenditure may take the forms of relief expenditure, subsidies, social insurance payments, public works etc.

B. The Discretionary Fiscal Policy:

By discretionary policy is meant the deliberate charging of taxes and government spending for the purpose of offsetting cyclical fluctuations in output and employment.

1. **Guide Maps:** In a capitalistic society, the entrepreneurs are not aware of each other's investment plans. They therefore in competition with one-another over invest capital in a particular industry or industries thus cause over production and unemployment in the economy.
2. **Change in Tax Rates:** It is an important weapon of fiscal policy for eliminating the savings of business cycle. When the government finds that planned investment is exceeding planned savings and the economy is likely to be threatened with inflationary gap.

3. **Varying Public Works Expenditure:** In times of depression the government can contribute directly to the income stream by initiating public works programmes and in boom period it can withdraw funds from the income stream by curtailing them.
4. **Credit Aids:** The government can also avert depression by offering long term credit aids to the needy industrialists for starting or expanding the business. It can also give financial help to insurance companies and bankers to prevent their failures.
5. **Transfer Payments:** Variation in transfer expenditure programmes can also help in moderating the business cycle. When the business is brisk the government can refrain from giving bonuses to the workers and thus can lessen the pressure of too great spending to some extent.

Meaning

The word 'FISC' means 'state treasury' and 'fiscal policy' refers to policy concerning the use of state treasury' or the government finances to achieve certain macroeconomic goals. Fiscal policy is how the government manages its budget. It collects revenue via j taxation that it then spends on various programs. Elected officials guide fiscal policy, redirecting funds from one sector of the population to another.

The tools of fiscal policy are taxes, expenditure, public debt and a nation's budget. They consist of changes in government revenues or rates of the tax structure so as to encourage or restrict private expenditures on consumption and investment.

The tools of fiscal policy are taxes, expenditure, public debt and a nation's budget. They consist of changes in government revenues or rates of the tax structure so as to encourage or restrict private expenditures on consumption and investment. Public expenditures include normal government expenditures, capital expenditures on public works, relief expenditures, subsidies of various types, transfer payments and social security benefits.

CHECK YOUR PROGRESS

1. **What are economic policies?**
2. **Explain about microeconomics policies.**
3. **Define Creation of Credit.**
4. **Explain in detail 'Fiscal Policy'.**
5. **Explain in detail 'Monetary Policy'.**

5.5 CONCEPT OF FOREIGN TRADE

Foreign trade is exchange of capital, goods, and services across international borders or territories. In most countries, it represents a significant share of gross domestic product (GDP). While international trade has been present throughout much of history, its economic, social, and political importance has been on the rise in recent centuries

All countries need goods and services to satisfy wants of their people. Production of goods and services requires resources. Every country has only limited resources. No country can

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produce all the goods and services that it requires. It has to buy from other countries what it cannot produce or can produce less than its requirements. Similarly, it sells to other countries the goods which it has in surplus quantities. India too, buys from and sells to other countries various types of goods and services.

Generally, no country is self-sufficient. It has to depend upon other countries for importing the goods which are either non-available with it or are available in insufficient quantities. Similarly, it can export goods, which are in excess quantity with it and are in high demand outside.

Definition of foreign trade

International trade means trade between the two or more countries. International trade involves different currencies of different countries and is regulated by laws, rules and regulations of the concerned countries. Thus, International trade is more complex.

According to Wasserman and Haltman, "International trade consists of transaction between residents of different countries".

According to Anatol Marad, "International trade is a trade between nations".

According to Eugeworth, "International trade means trade between nations".

Industrialization, advanced transportation, globalization, multinational corporations, and outsourcing are all having a major impact on the international trade system. Increasing international trade is crucial to the continuance of globalization. Without international trade, nations would be limited to the goods and services produced within their own borders.

International trade is in principle not different from domestic trade as the motivation and the behaviour of parties involved in a trade do not change fundamentally regardless of whether trade is across a border or not. The main difference is that international trade is typically more costly than domestic trade.

The reason is that a border typically imposes additional costs such as tariffs, time costs due to border delays and costs associated with country differences such as language, the legal system or culture. International trade consists of 'export trade' and 'import trade'. Export involves sale of goods and services to other countries. Import consists of purchases from other countries.

International or Foreign trade is recognized as the most significant determinants of economic development of a country, all over the world. The foreign trade of a country consists of inward (import) and outward (export) movement of goods and services, which results into. outflow and inflow of foreign exchange. Thus it is also called EXIM Trade.

5.6 NEED AND OBJECTIVES OF FOREIGN TRADE

ECONOMIC POLICIES AND EXTERNAL ENVIRONMENT

Following points explain the need and importance of foreign trade to a nation.

1. **Division of labour and specialisation:** Foreign trade leads to division of labour and specialisation at the world level. Some countries have abundant natural resources. They should export raw materials and import finished goods from countries which are advanced in skilled manpower. This gives benefits to all the countries and thereby leading to division of labour and specialisation.
2. **Optimum allocation and utilisation of resources:** Due to specialisation, unproductive lines can be eliminated and wastage of resources avoided. In other words, resources are channelized for the production of only those goods which would give highest returns. Thus there is rational allocation and utilization of resources at the international level due to foreign trade.
3. **Equality of prices:** Prices can be stabilised by foreign trade. It helps to keep the demand and supply position stable, which in turn stabilises the prices, making allowances for transport and other marketing expenses.
4. **Availability of multiple choices:** Foreign trade helps in providing a better choice to the consumers. It helps in making available new varieties to consumers all over the world.
5. **Ensures quality and standard goods:** Foreign trade is highly competitive. To maintain and increase the demand for goods, the exporting countries have to keep up the quality of goods. Thus quality and standardised goods are produced.
6. **Raises standard of living of the people:** Imports can facilitate standard of living of the people. This is because people can have a choice of new and better varieties of goods and services. By consuming new and better varieties of goods, people can improve their standard of living.
7. **Generate employment opportunities:** Foreign trade helps in generating employment opportunities, by increasing the mobility of labour and resources. It generates direct employment in import sector and indirect employment in other sector of the economy. Such as Industry, Service Sector (insurance, banking, transport, communication), etc.
8. **Facilitate economic development:** Imports facilitate economic development of a nation. This is because with the import of capital goods and technology, a country can generate growth in all sectors of the economy, i.e. agriculture, industry and service sector.
9. **Assistance during natural calamities:** During natural calamities such as earthquakes, floods, famines, etc., the affected countries face the problem of shortage of essential goods. Foreign trade enables a country to import food grains and medicines from other countries to help the affected people.
10. **Maintains balance of payment position:** Every country has to maintain its balance of payment position. Since, every country has to import, which results in outflow of foreign exchange, it also deals in export for the inflow of foreign exchange.
11. **Brings reputation and helps earn goodwill:** A country which is involved in exports earns goodwill in the international market. For e.g. Japan has earned a lot of goodwill in foreign markets due to its exports of quality electronic goods.

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12. **Promotes World Peace:** Foreign trade brings countries closer. It facilitates transfer of technology and other assistance from developed countries to developing countries. It brings different countries closer due to economic relations arising out of trade agreements. Thus, foreign trade creates a friendly atmosphere for avoiding wars and conflicts. It promotes world peace as such countries try to maintain friendly relations among themselves.

OBJECTIVES OF FOREIGN TRADE

Trade enables economic growth and national development. The main aim is not the mere earning of foreign exchange, but encouraging greater economic activity. The foreign trade policy of India is based on the following major objectives as follows:

1. To enable substantial growth in exports from India and import to India to boost the economy.
2. To at least double the percentage share of global merchandise trade conducted within the next five years.
3. To improve the balance of payment and trade.
4. To act as an effective instrument of economic growth by creating employment opportunities for the citizens; the larger the expansion of trade activities, the more the workforce required.
5. To provide for sustainable growth by giving access to essential raw materials for production and other components, consumables, and capital goods required for increasing production and providing efficient services.
6. To raise the technological capacity for production and cost-effectiveness of industry and services, thereby improving their competitive strength in comparison to other countries, and to encourage the accomplishment of internationally accepted standards of quality.
7. To provide buyers or clients with high-quality goods and services at globally competitive rates and quality. 'Canalization'- an important feature of Foreign Trade Policy under which specific class of goods can be imported only by designated agencies.
8. Creation of opportunities by engaging in good and ethical practices.
9. Accelerating the economy from low-level economic activities to high-level economic activities by making it a globally oriented and vibrant economy
10. To derive maximum benefits from expanding the global market and seizing the best opportunities available.
11. Making policies that favor ease of doing business and e-governance.
12. To allow for hassle-free transactions for both import and export.
13. Reducing the interference between the exporters and Directorate General of Foreign Trade by reducing the number of export documents.
14. To allow the import of technology and equipment's which may help in achieving better international standards of quality and reduce the cost of production.

15. Establishing the Advance Licensing System for imported goods needed for manufacturing various goods for export. An Advance License is issued by the Directorate General of Foreign Trade to allow duty-free import of inputs, which are physically integrated with the export product (making normal allowance for wastage).
16. To allow the import of certain goods as listed in the Open General License; a kind of export license which is issued by the Government to domestic suppliers.

5.7 NATURE OF FOREIGN TRADE

Foreign trade is the exchange of goods, service and capital across international borders and gives consumers and countries the opportunity to be exposed to new markets and products. When a product that is sold to the foreign market is an export and a when a product that is bought from the foreign market is an import. Exports and imports are accounted for in a country's current account in the balance of payments and intern impact the GDP of a country.

Also involving in international trade nations trade with each other regularly, they often establish and create a stronger, more effective trading relationship and aid to have more global peace and stability. The kind of specialisation allows companies to produce products for a lower price with a better quality than otherwise normally. When some nations have competitive advantage, these nations are able to specialise in something they are good at and trade for other things they aren't or don't have the resources to produce, then both the countries are benefited.

Take the example of India and China. China produces a great number of the goods that India consumes. China is able to mass-produce these products better than India will do. And India specialises in other products and services and trade them with China.

3 Types of Foreign Trade

Foreign Trade can be divided into following three groups:

- **Import Trade:** Import trade refers to purchase of goods by one country from another country or inflow of goods and services from foreign country to home country. For example, India imports electronic goods from China
- **Export Trade:** Export trade refers to the sale of goods by one country to another country or outflow of goods from home country to foreign country. For example, Gems and Jewellery
- **Entrepot Trade**: Entrepot trade is also known as Re-export. It refers to purchase of goods from one country and then selling them to another country after some processing operations. For example, India may import oil from Iraq and export some of it to Bhutan.

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5.8 TRADE THEORIES

With time, economists have established theories that explain global trade. These theories explain what exactly happens in International Trade. There are 6 economic theories under International Trade Law which are classified in four: (I) Mercantilist Theory of trade (II) Classical Theory of trade (III) Modern Theory of trade (IV) New Theories of trade. Both of these categories, classical and modern, consist of several international theories.

Theories:

1. **Mercantilism**

   This theory was popular in the 16th and 18th Century. During that time the wealth of the nation only consisted of gold or other kinds of precious metals so the theorists suggested that the countries should start accumulating gold and other kinds of metals more and more. The European Nations started doing so. Mercantilists, during this period stated that all these precious stones denoted the wealth of a nation, they believed that a country will strengthen only if the nation imports less and exports more. They said that this is the favorable balance of trade and that this will help a nation to progress more.

   Mercantilism thrived during the 1500's because there was a rise in new nation-states and the rulers of these states wanted to strengthen their nations. The only way to do so was by increasing exports and trade, because of which these rulers were able to collect more capital for their nations. These rulers encouraged exports by putting limitations on imports. This approach is called protectionism and it is still used today.

   Though, Mercantilism is one the most old-fashioned theory, it still remains a part of contemporary thinking. Countries like China, Taiwan, Japan, etcetera still favor Protectionism. Almost every country, has implemented protectionist policy in one way or another, to protect their economy. Countries that are export oriented prefer protectionist policies as it favors them. Import restrictions lead to higher prices of goods and services. Free-trade benefits everyone, whereas, mercantilism's protectionist policies only profit select industries.

2. **Absolute Cost Advantage**

   This theory was developed by Adam Smith, he was the father of Modern Economics. This theory came out as a strong reaction against the protectionist mercantilist views on international trade. Adam Smith supported the necessity of free trade as the only assurance for expansion of trade. He said that a country should only produce those products in which they have an absolute advantage. According to Smith, free trade promoted international division of labour. By specialization and division of labour producers with different absolute advantages can always gain over producing in remoteness. He emphasised on producing what a country specializes in so that it can produce more at a lower cost than other countries. This theory says that a country should export a product in which it has a cost advantage.

Adam's theory specified that a country's prosperity should not be premeditated by how much gold and other precious metals it has, but rather by the living standards of its citizens.

3. Comparative Cost Advantage Theory

The comparative cost theory was first given by David Ricardo. It was later polished by J. S. Mill, Marshall, Taussig and others. Ricardo said absolute advantage is not necessary. He also said a country will produce where there is comparative advantage.

The theory suggests that each country should concentrate in the production of those products in which it has the utmost advantage or the least disadvantage. Hence, a state will export those supplies in which it has the most benefit and import those supplies in which it has the least drawback.

Comparative advantage arises when a country is not able to yield a commodity more competently than another country; however, it has the resources to manufacture that commodity more proficiently than it does other commodities.

4. Hecksher Ohlin Theory (H-O Theory)

Smith and Ricardo's theories didn't help the countries figure out which products would give better returns to the country. In 1900s, two economists, Eli Hecksher and Bertil Ohlin, fixated on how a country could profit by making goods that utilized factors that were in abundance in the country. They found out that the factors that were in abundance in relation to the demand would be cheaper and that the factors in great demand comparatively to its supply would be more expensive.

The H-O Theory is also known as the Modern Theory or the General Equilibrium Theory. This theory focused on factor endowments and factor prices as the most important determinants of international trade. The H - O is divided in two theorems: The H - O theorem, and the Factor Price Equalization Theorem. The H - O theorem predicts the pattern of trade while the factor-price equalization theorem deals with the effect of international trade on factor prices. H - O theorem is further divided in two parts: factor intensity and factor abundance. Factor Abundance can be explained in terms of physical units and relative factor prices. Physical units include capital and labor, whereas, relative factor price includes the adjoining expenses like rent, labor cost, etcetera. On the other hand, factor intensity means capital, labor or technology, etcetera, any factor that a country has.

5. National Competitive Theory or Porter's diamond

The diamond theory was given by Micheal Porter. This theory states that the qualities of the home country are vital for the triumph of a corporation. This theory was given its name because it is in the shape of a diamond. It describes the factors that influence the success of an organization. There are Six Model Factors in this theory which are also known as the determinants.

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The following are the determinants:

- Factor Condition;
- Demand Conditions;
- Related and Supporting Industries;
- Firm Strategy, Structure, and Rivalry;
- Chance; and
- Government.

6. Product Life Cycle Theory

This theory was developed by Raymond Vernon in the Mid 1960's, he was a Harvard Business School professor. This theory was developed after the failure of Hecksher Ohlin's Theory. The theory, detailed that a product goes through various stages in the course of its progress. These stages are: (1) new product stage, (2) maturing product stage, and (3) standardized product stage. This theory assumed that the production of a new product would take place in the nation where it was innovated.

In the 1960's this was a very useful theory. At that time, United States of America was dominating the whole globe in terms of manufacturing after the World War II.

Stage I: New Product

The stage begins with introducing a new product in the market. A corporation will begin from developing a new good. The market for which will be small and sales will be comparatively low. Vernon assumed that innovation or invention of products will mostly be done in developed nations, because of the economy of the nation. To balance the effect of less sales, corporations would keep the manufacturing local. As the sales would increase, the corporations would start to export the goods to different nations in order to increase the revenue and sales.

Stage II: Mature Product Stage

The product enters this stage when it has established demand in developed nations. The manufacturer, would need to open manufacturing plants in each nation where the product has demand. Due to local production, labour costs and export costs will decline which will in result reduce the per unit cost and increase the revenue.

This stage may include product development. Demand for the product will continue to rise in this stage. demand can also be expected from less developed nations. Local competition with other cooperation's will begin.

Stage III: Standardized Product Stage

In this stage exports to nations various developed and under developed nations will begin. Foreign product competition will reach its peak due to which the product will start losing its market. The demand in the nation from where the product originated

will start declining and eventually diminishes as a new product grabs the attention of the people. The market for the product is now completely finished.

Then, the cycle of a new product begins.

5.9 ADVANTAGES AND DISADVANTAGES OF FOREIGN TRADE

Advantages of International Trade

1. **Optimal use of natural resources:** International trade helps each country to make optimum use of its natural resources. Each country can concentrate on production of those goods for which its resources are best suited. Wastage of resources is avoided.
2. **Availability of all types of goods:** It enables a country to obtain goods which it cannot produce or which it is not producing due to higher costs, by importing from other countries at lower costs.
3. **Specialisation:** Foreign trade leads to specialisation and encourages production of different goods in different countries. Goods can be produced at a comparatively low cost due to advantages of division of labour.
4. **Advantages of large-scale production:** Due to international trade, goods are produced not only for home consumption but for export to other countries also. Nations of the world can dispose of goods which they have in surplus in the international markets. This leads to production at large scale and the advantages of large scale production can be obtained by all the countries of the world.
5. **Stability in prices:** International trade irons out wild fluctuations in prices. It equalizes the prices of goods throughout the world (ignoring cost of transportation, etc.)
6. **Exchange of technical know-how and establishment of new industries:** Underdeveloped countries can establish and develop new industries with the machinery, equipment and technical know-how imported from developed countries. This helps in the development of these countries and the economy of the world at large.
7. **Increase in efficiency:** Due to international competition, the producers in a country attempt to produce better quality goods and at the minimum possible cost. This increases the efficiency and benefits to the consumers all over the world.
8. **Development of the means of transport and communication:** International trade requires the best means of transport and communication. For the advantages of international trade, development in the means of transport and communication is also made possible.
9. **International co-operation and understanding:** The people of different countries come in contact with each other. Commercial intercourse amongst nations of the world encourages exchange of ideas and culture. It creates co-operation, understanding, cordial relations amongst various nations.

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10. **Ability to face natural calamities:** Natural calamities such as drought, floods, famine, earthquake etc., affect the production of a country adversely. Deficiency in the supply of goods at the time of such natural calamities can be met by imports from other countries.
11. **Other advantages:** International trade helps in many other ways such as benefits to consumers, international peace and better standard of living.

Disadvantages of International Trade:

Though foreign trade has many advantages, its dangers or disadvantages should not be ignored.

1. **Impediment in the Development of Home Industries:** International trade has an adverse effect on the development of home industries. It poses a threat to the survival of infant industries at home. Due to foreign competition and unrestricted imports, the upcoming industries in the country may collapse.
2. **Economic Dependence:** The underdeveloped countries have to depend upon the developed ones for their economic development. Such reliance often leads to economic exploitation. For instance, most of the underdeveloped countries in Africa and Asia have been exploited by European countries.
3. **Political Dependence:** International trade often encourages subjugation and slavery. It impairs economic independence which endangers political dependence. For example, the Britishers came to India as traders and ultimately ruled over India for a very long time.
4. **Mis-utilisation of Natural Resources:** Excessive exports may exhaust the natural resources of a country in a shorter span of time than it would have been otherwise. This will cause economic downfall of the country in the long run.
5. **Import of Harmful Goods:** Import of spurious drugs, luxury articles, etc. adversely affects the economy and well-being of the people.
6. **Storage of Goods:** Sometimes the essential commodities required in a country and in short supply are also exported to earn foreign exchange. This results in shortage of these goods at home and causes inflation. For example, India has been exporting sugar to earn foreign trade exchange; hence the exalting prices of sugar in the country.
7. **Danger to International Peace:** International trade gives an opportunity to foreign agents to settle down in the country which ultimately endangers its internal peace.
8. **World Wars**: International trade breeds rivalries amongst nations due to competition in the foreign markets. This may eventually lead to wars and disturb world peace.
9. **Hardships in times of War:** International trade promotes lopsided development of a country as only those goods which have comparative cost advantage are produced in a country. During wars or when good relations do not prevail between nations, many hardships may follow.

5.10 GLOBALIZATION

Globalization is the free movement of goods, services and people across the world in a seamless and integrated manner. Globalization can be thought of to be the result of the opening up of the global economy and the concomitant increase in trade between nations. In other words, when countries that were hitherto closed to trade and foreign investment open up their economies and go global, the result is an increasing

Further, globalization can also mean that countries liberalize their import protocols and welcome foreign investment into sectors that are the mainstays of its economy. What this means is that countries become magnets for attracting global capital by opening up their economies to multinational corporations.

Further, globalization also means that countries liberalize their visa rales and procedures so as to permit the free flow of people from country to country. Moreover, globalization results in freeing up the unproductive sectors to investment and the productive sectors to export related activities resulting in a win-win situation for the economies of the world.

Globalization is grounded in the theory of comparative advantage which states that countries that are good at producing a particular good arc better off exporting it to countries that are less efficient at producing that good. Conversely, the latter country can then export the goods that it produces in an efficient manner to the former country which might be deficient in the same. The underlying assumption here is that not all countries are good al producing, all sorts of goods and hence they benefit by trading with each other. Further, because of the wage differential and the way in which different countries arc endowed with different resources, countries stand to gain by trading with each other

Globalization also means that countries of the world subscribe to the rules and procedures of the WTO or the World Trade Organization that oversees the terms and conditions of hade between countries. There are other world bodies like the UN and several bodies where countries agree in principle to observe the policies of lice hade and non-discriminatory trade policies when they open up their economies.

Now we look at the various dimensions of globalization and the impact it has had on the global economy as well as in the mobility of people from poverty to middle class status. The point here is that globalization has had positive and negative effects and hence a nuanced and deep approach is needed when discussing the concept. What is undeniable is that globalization is here to stay and hence it is better for the countries in the global economy to embrace the concept and live with it.

Negative effects of globalization for developing country business

- The growth of international trade is exacerbating income inequalities, both between and within industrialized and less industrialized nations
- Global commerce is increasingly dominated by transnational corporations which seek to maximize profits without regard for the development needs of individual countries or the local populations

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- Protectionist policies in industrialized countries prevent many producers in the Third World from accessing export markets;
- The volume and volatility of capital flows increases the risks of banking and currency crises, especially in countries with weak financial institutions
- Competition among developing countries to attract foreign investment leads to a "race to the bottom" in which countries dangerously lower environmental standards

Cultural uniqueness is lost in favour of homogenization and a "universal culture" that draws heavily from American culture.

Positive effects of globalization for developing country business

Conversely, globalization can create new opportunities, new ideas, and open new markets that an entrepreneur may have not had in their home country. As a result, there are a number of positives associated with globalization:

- It creates greater opportunities for firms in less industrialized countries to tap into more and larger markets around the world
- This can lead to more access to capital flows, technology, human capital, cheaper imports and larger export markets
- It allows businesses in less industrialized countries to become part of international production networks and supply chains that are the main conduits of trade

5.11 CHAPTER SUMMARY

A central issue in macroeconomics is whether or not markets, left alone, automatically bring about long run economic equilibrium. If the free operation of market forces eventually resulted in a full employment level of national income with stable prices and economic growth, there would be no need for government intervention in the macro economy no need for fiscal monetary exchange rate and supply side policies.

The reality is that all governments intervene through their macroeconomic policies in a bid to achieve certain policy objectives and improve the overall performance of the economy. There are some differences in the economic effects of monetary and fiscal policy, on the composition of output, the effectiveness of the two kinds of policy in meeting the government's macroeconomic objectives.

Monetary policy is concerned with the changes in the supply of money and credit. It refers to the policy measures undertaken by the government or the central bank to influence the availability, cost and use of money and credit with the help of monetary techniques to achieve specific objectives.

The fiscal policy is concerned with the raising of government revenue and incurring of government expenditure. To generate revenue and to incur expenditure, the government frames a policy called budgetary policy or fiscal policy. So, the fiscal policy is concerned with government expenditure and government revenue.

The economic environment of business is affected by internal and external factors. An internal factor that affects the business environment is the cost of labor, materials, processes and procedures. Internal factors can be improved through company projects. On the other hand, external factors can also affect a company's business environment and the business has less control over these factors. The primary influences on a business are: political, economic, social, legal, technological and environmental.

Most influential factors affecting Foreign Trade are as follows:
Because international trade can significantly affect a country's economy, it is important to identify and monitor the factors that influence it.

a. Impact of inflation
b. Impact of National Income
c. Impact of Government Policies
d. Subsidies for Exporters
e. Restrictions on Imports
f. Lack of Restrictions on Piracy
h. Impact of Exchange Rates

With the help of foreign trade policies, a country can lead to equality of pricing to ensure a stable demand and supply situation within the economy. Foreign trade policy also enables a nation to import certain products at the time of a natural calamity and therefore manage scarcity when demand is high by proving better quality and quantity of goods. It also assists in raising the standard of living and making commodities available at a lower cost. Therefore, the Foreign Trade Policy in India is a complete policy to enhance the position of India in the international market and create benefits for all.

5.12 REVIEW QUESTIONS

SHORT ANSWER TYPE QUESTIONS

1. **Define and explain in detail 'Foreign Trade'**
2. **Why is Foreign Trade necessary for country's development?**
3. **What do you mean by Globalization?**
4. **Explain the scopes of fiscal policy.**
5. **Describe tools of Monetary policy.**

LONG ANSWER TYPE QUESTIONS

1. **Explain Nature of Foreign Trade and different types of foreign trade.**
2. **Describe objectives of fiscal policy and highlight two important objectives.**
3. **Discuss about the Product Life Cycle Theory in detail.**
4. **Discuss about the Absolute Cost Advantage in detail.**
5. **Explain Advantages and Disadvantages of Foreign Trade**

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5.13 MULTIPLE CHOICE QUESTIONS

1. **The word _____ means 'state treasury'.**
   a. FISC
   b. FCIS
   c. FSIC
   d. None of the above
2. **_____ refers to policy concerning the use of state treasury'.**
   a. Fiscal policy
   b. Monetary policy
   c. Both a and b
   d. None of the above
3. **The tools of fiscal policy are _____ and a nation's budget.**
   a. Taxes,
   b. Expenditure,
   c. Public debt
   d. All of the above
4. **The scope of fiscal policy comprises the fiscal instruments and the _____ variable.**
   a. Number
   b. Target
   c. Physical
   d. Instrumental
5. **Public expenditure can be used to stimulate_____.**
   a. Production
   b. Income
   c. Employment
   d. All of the above
6. **Government expenditure forms a highly significant part of the _____ expenditure in the economy.**
   a. Total
   b. Half
   c. One fourth
   d. None of the above
7. **_____ is the free movement of goods, services and people across the world in a seamless and integrated manner.**
   a. Globalization

b. Transportation

c. Trade

d. None of the above

8. **International trade often _____ subjugation and slavery.**
a. Discourages

b. Encourages

c. Does not affect

d. None of the above

9. **Globalization is grounded in the theory of _____ which states that countries that are good at producing a particular good arc better off exporting it to countries that are less efficient at producing that good.**
a. Product Life Cycle

b. Absolute Cost Advantage

c. Porter's

d. Absolute Cost Advantage

10. **The _____ is also known as the Modern Theory or the General Equilibrium Theory.**
a. Product Life Cycle

b. Absolute Cost Advantage

c. H-O Theory

d. None of the above

♦♦♦♦♦

ANSWER KEY

UNIT I

Ques. No.	Answer	Ques. No.	Answer
1.	d.	6.	d.
2.	a.	7.	a.
3.	a.	8.	b.
4.	e.	9.	b.
5.	e.	10.	c.

UNIT II

Ques. No.	Answer	Ques. No.	Answer
1.	b.	6.	a.
2.	c.	7.	b.
3.	c.	8.	a.
4.	a.	9.	d.
5.	c.	10.	c.

UNIT III

Ques. No.	**Answer**	**Ques. No.**	**Answer**
1.	d.	6.	a.
2.	b.	7.	a.
3.	a.	8.	a.
4.	b.	9.	a.
5.	a.	10.	d.

UNIT IV

Ques. No.	**Answer**	**Ques. No.**	**Answer**
1.	b.	6.	d.
2.	c.	7.	b.
3.	c.	8.	b.
4.	b.	9.	c.
5.	a.	10.	c.

UNIT V

Ques. No.	Answer	Ques. No.	Answer
1.	a.	6.	a.
2.	a.	7.	a.
3.	d.	8.	b.
4.	b.	9.	d.
5.	d.	10.	c.

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