

PRINCIPLES OF ECONOMICS

SEMESTER---I

B.Com., (GEN.,COM.,IT.,)

UNIT – 1

INTRODUCTION

Introduction

The word economics originated from the Greek word oikonomikos which means house hold management.

Many group of economist like Physiocrats, Mercantilist defined Economics, followed by Aristotle and Kautilya.

Scientific modern explanation started with classical group of economist. Adam smith gave wealth definition, Alfred Marshall gave 'Welfare definition' & Lionel Robbins gave 'Scarcity' definition followed by growth definition.

Economic Activities

“Economic activities are those human activities which are concerned with earning and spending of money through exchange of goods & services “.

Definition:

“Economic activity is the activity which is concerned with the consumption, production, exchange and distribution of all goods which possess utility scarcity, externality, transferability and possessiveness”.

Cycle of Economic Activities

Wants are unlimited. Economic goods are scarce because of this people have to work hard , make effort and satisfy their wants , this cycle of economic activity continues to boost economic growth.

Objectives of ECO Activities

1. **High standard of living and economic Growth:** Economic activities aim to satisfy man's wants so that is standard of living is raised. Standard of living is the result of

economic growth and equitable distribution of income, which can be achieved by more and more economic activities.

2. **Full Employment:** Every country wants to achieve the goals of full employment and to maintain it at high level. To achieve full employment of resources, it is essential that production and consumption, both must increase.
3. **Economic activities must be arranged to bring economic stability :** It's a situation where there is no depression or inflation

Non Economic Activities:

These are those activities which are not undertaken for earning of wealth. Such activities are inspired by patriotism, family welfare, social service, entertainment, health consciousness, politics, religion, etc.

Distinction between Economic and Non Economic Activities

Basis of Differences	Economic Activities	Non Economic Activities
1. Difference of Objective	Are those whose objective is Production, consumption, Exchange and distribution of Wealth or economic goods.	Are those concerned with love, entertainment, religion or affection, patriotism, etc
2. Difference of Measurement by Money	Are those which can be measured by measuring rod of money.	Are those which cannot be measured in terms of money like love, affection, Patriotism.
3. Difference of legal sanction	These are legal activities and enjoy sanction of law.	These do not, confirm to law or violate the law.
4. Examples	(a) A seller selling permitted goods at his shop. (b) A teacher teaching in class	(a) A thief stealing goods Is an illegal act. (b)A teacher teaching her son.

DEFINITION OF ECONOMICS

1. Wealth Definition

Adam Smith has defined economics as a science of wealth in his book – “An enquiry into the nature and causes of wealth of nations.”

Adam Smith has defined “Economics as an art of managing resources of people and of government.”

J.S.Mill, “Economics investigates into the nature of wealth and the laws of production and distribution.”

J.B.Say, “Economics is the study of laws which govern wealth.”

Main points of the definition:

- (a) Economics is the study of wealth only.

- (b) Only scarce commodities constitute wealth, non material goods and services and free good are not wealth.
- (c) Economics studies the causes of wealth and how wealth can be increased with increase in production by division of LABOUR.
- (d) He mentions about economic man who is interested in accumulating only wealth or economic goods.
- (e) Economic goods are the good which is having following properties like utility, scarcity, transferability, possessiveness and externality.
- (f) He suggested labour is also wealth of nation and division of labour can be done to increase wealth.

2. Welfare Definition

Marshall in his book “ principles of economics” defined, “Economics is on the one side a study of wealth and on the other and more important side a part of the study of man.”

According to Marshall, “Political economy or economics is the study of mankind in the ordinary business of life; it examines that part of individual and social action which is most closely connected with the attainment and with the use of material requisites of well-being.”

A.C.Pigou,” The range of our enquiry becomes restricted to the part of social welfare that can be bought directly or indirectly into relation and with the measuring rod of money.”

Characteristics

1. Economics is the study of Economic activities which are concerned with the material welfare of man
2. Economics study ordinary men and not extra ordinary men.
3. Economics studies the personal and social activities of man which are concerned with material welfare.
4. According to Marshall, economics is a normative science.
5. Wealth is a means of achieving the objective of material welfare.

3. Scarcity Definition

According to Lionel Robbin’s , “Economics is the science which studies the human behaviour as a relationship between ends scarce means which have alternative uses.”

Features

1. Ends mean wants. Wants are unlimited, when one want is satisfied another want crops up.
2. Means implies means of production, income, or resource .most of the means to satisfy wants are scarce or limited.
3. Means have alternative uses instead of one use we can put it to two or more uses. Eg: electricity
4. Wants are of different intensity, wants can be graded according to urgency.

5. Man has to make a choice between his wants; he has to decide whether want is to be satisfied at present or in the future. By making a proper choice he can achieve maximum satisfaction.

4. Growth Definition

Paul Samuelson , “ Economics is the study of how people and how people and society end up with or without money to employ scarce productive resources that could have alternative uses to produce commodities and distribute them for consumption, now or in the future among person and groups in society. Economics analyses the cost and benefits of improving the pattern of resource use.”

Features

1. Samuelson’s definition gave importance to time element, it throws light on the problem of distribution of good among groups and persons for consumption now or in the future.
2. The definition makes it clear that economic problem exist not only in a monetary economy but also in barter economy.
3. He gave importance to economic growth.

Nature of Economics

Is Economics science or an art?

Is Economics a positive or normative science?

Economics as a Science:

A science is a systematic and comprehensive study of knowledge, which explains the cause and effect relationship.

According to M.Poincare, “science is built of facts as a house id built up of stones, but an accumulation of facts in no more a science than a heap of stones is a house.”

Features

1. A systematized study of a subject.
2. Establishes relationship between cause and effect of a fact.
3. Laws of science are universal.

Prof. Robbin’s, Pro. Briggs and Jordan all consider Economics to be a science. Robertson also regarded Economics as a science because of letters ‘ics’ present in physics and dynamics.

Arguments in favour of economics as a science:

1. **Systematized Study:** Economics is systematically divided into consumption, production, exchange, distribution and public finance.

2. **Scientific Laws:** In Economics law we establish cause and effect relationship of economic activities. Eg: Law of demand shows the relationship between change in demand and change in price.
3. **Experiments :** Several experiments are conducted by economics. Capitalism, socialism and mixed economy all are the experiments of economics. Different economic laws have been experimented and tried to get rid of economic evils. The laboratory of these experiments is the world and man is the target of these experiments.
4. **Measuring rod of Money:** Marshall said that the measuring rod of money has made economics, a more certain social science. Economics has the quality of quantitative measurement of a science. Money is a good measuring rod to measure individual as well as commercial activities.
5. **Universal:** Many of the economic laws are universally true. They are applicable to all types of economy. Whether it is capitalists, socialists or a mixed economy. Eg: The laws of Diminishing Marginal ability.

Arguments against Economics as a Science:

1. **The laws of economics are not universal:** The applicability of economic laws is limited because of differences in physical and cultural factors between different countries. The laws of economics are based on the habits and tastes of the people. These differ for different countries.
2. **The laws of economics are not exact:** Like physical sciences, all economic laws are conditional they use the phrase "other things remaining the same."
3. **No possibility of laboratory experiments:** In economics, experimentation is not possible; the reason is that the object of study is man. The data is available is from real world, which cannot be controlled. Hence not a pure science.
4. **Conflicting views :** Economists differ in their view regarding their explanations. Lack of uniformity of opinion among economist is the sign of lack of development, in economics as a science.
5. **Difficulty in making predictions :** Pure science can predict accurately but economics cannot, like meteorology where forecasting of weather is not accurate. Still meteorology is a science. Man is the central object of its study, so it is a social science.

Economics as an Art : Art is the practical application of knowledge for achieving definite ends. Lord J.M.Keynes defined, " An art is a system of rules for the attainment of a given end."

Luigi Cossa, " A science teaches us to know, an art teaches us to do."

There is unemployment in INDIA. To achieve full employment government takes fiscal and monetary steps. The study of these measures makes economics an art.

Arguments in favour :

1. **Solution of the problems :** Economics helps to utilize the scarce resource is the best possible way. Pigou, " Economics is not only right giving but also fruit bearing. Thus,

economics as an art is the practical application of knowledge, it solves the problem of scarcity and the problem of choice.

2. **Modern Trends** : Modern economists are much concerned with solving the economic problems, they spend a lot of time to find solution to problems of rising prices, depression, unemployment, economic development etc. Economics as an art tries to promote the welfare of human beings.
3. **Verification of Economic Laws** : It is possible only if economics is an art. Art is the practical application of knowledge. Only when we apply the economic laws then we come to know it whether their results are true or false.
4. **Economic Planning** : It has become very popular to formulate economic plan is an art.,
5. It promotes the welfare of the citizens but using the economic concepts.

Thus, we can conclude that economics is a science as well as an art. Prof.Cossa. said, "Science requires art; art requires science, each being complementary to each other."

The positive science explains the real nature of subject. It establishes a cause and effect relationship between events as it happens.

Arguments in favour :

1. **It is based upon logic** : It established the cause and effect relationship. It shows us how things are and not what is good or bad. Economics is just an logical an analysis of economic activities.
2. **It is based upon the principle of specialization of labour** : An economists should confine him to only economic activities .
3. **Fear of confusion** : If economists give their opinions is what ought to be or what is good or bad, then there will be difference of opinion & there will be lot of confusion. E.g. :If they are asked to give their opinions about processing price, each economists will be differing from each other.
4. **More uniformity** : Different economist will give different views and hence uniformity will be there, only when there is a positive science.
5. **More neutrality** : If Economist explain what ought to be then he will give his own suggestion, then the real fact cannot be known. He should be neutral & should not give any value judgements.
6. **Informative** : It gives information of what has happened in the history of economics.

Economics as a normative science

Economics is one which explains what should be done or should not be done.

Load J.M.Keynes " A normative science is a body of Systematized knowledge relating to the criteria of what ought to be and concerned with the ideal as distinguished from the actual."

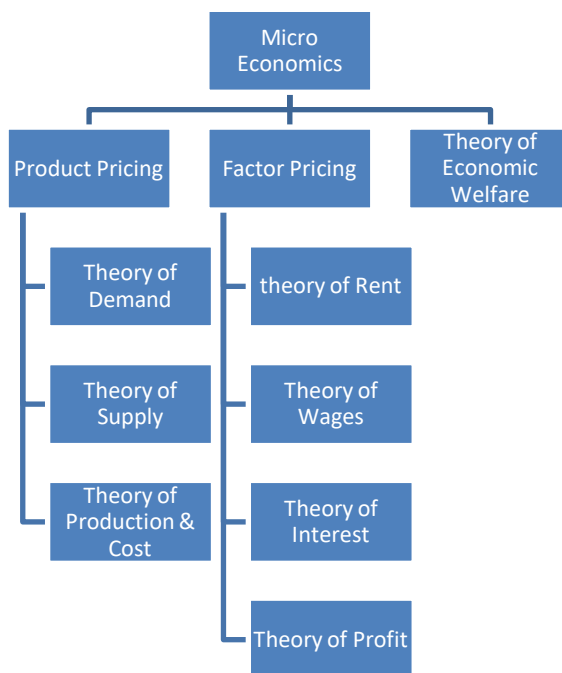
Arguments in Favour

1. **Man is not only logical but also sentimental** : In reality man is both logical and sentimental. So he has the freedom to express his sentiments and judgements.

2. **The principle of division or specialization of labour misunderstood** : Economics can be helpful only if it explains, explore, condemns & suggests.
3. **Wrong argument of equilibrium is equilibrium** :According to the classical group of economists market equilibrium is attained automatically by the forces of demand and supply. In India, price has raised so much. Price level is determined by equilibrium between demand and supply. But equilibrium price does not mean it is the best price, the government controlled and reduce the prices. Hence economics is a normative science.
4. **A means of social betterment** : Economist gives different views regarding the welfare of human beings. We can choose the best view among the different views. Economics cannot be separated from ethics. Hence normative.
5. **Basis of economic planning** : Many countries have developed through the formulation and implementation of plans. Economics plans are made on suggestions of different economist. Hence economics is a normative science.

Micro Economics (M.B)

1. According to Boulding “ micro economics is the study of particular firm, particular household & individual price, wage, income, industry & particular commodity.”
2. Leftwich, “ Micro economics is concerned with the economics activities of such economic unit as consumers, resource owners and business firms.”



Micro Economics is called as price theory: "Micro" is derived from Greek word micro which means small. It explains about individual commodities, buyers & behaviour of buyer & seller in the markets.

Markets :

1. Product (Commodity) market
2. Factor market

The factors of production earn in factor market & spend in product market. Pricing in both the market is the result of demand & supply & their elasticities.

In product market household demand & firm supply is studied. A group of firm is a industry.

- (a) Product pricing is influenced by individual demand & also market demand.
- (b) As individual household is in equilibrium if it gets maximum satisfaction from allocation of its resources.
- (c) A firm is in equilibrium when it gets maximum profit. It is obtained depending on marginal cost (MC) & marginal revenue (MR).
- (d) Industry is in equilibrium if no firm is leaving or entering the industry.

But we study both the markets separately since the price of the product & factor play a critical place, Micro economics is also called as " Price Theory".

Scope of Micro Economics.

1. **Theory of demand** : All economic activities start from a source of demand. Production is done when there is demand & their interrelationship, Elasticity of demand, behaviour of consumer, forecasting of demand etc.
2. **Theory of production** : When there is demand, product has to be produces by a firm . Land, labour, capital & organisation are used to produce. We study the laws of production, short run & long run period.
3. **Theory of factory pricing**: Rates of return to the 4 factor of production rent, wages, interest & profits are the income share of the factor of production. The factor Market determine their income.
4. **Allocative efficiency** : Microeconomics studies the efficiency of allocation of resources available to consumers, firm & industry. Consumers try to maximize their satisfaction & firm try to maximize their profits by allocation of resources.
5. **Welfare economics** : Studies the determinants of human welfare, the way the resources are to be used to promote maximum benefit to maximum number of people in society.

Importance & uses of Micro Economics

1. **Operation of an economy** : We get the knowledge about the operation of an economy by micro economics. We get to know whether the units of an economy like firm. Consumer are behaving optimally or not.

2. **Basis of the economy as a whole** : Micro deals with individual units macro deals with total of these units. Aggregates are merely sum of these figures: hence micro is the basis for understanding macroeconomics.
3. **Predictions** : The principle of Micro economics is based on predictions. It explains if something occurs then a set of result will follow.
4. **Economic policies** : Microeconomics is used while formulation Economic Policies. With the study of Microeconomics we can know the effect of government policies on the allocation of factor or resources. E.g.: When government wants to impose a new tax, it can know the reaction of the people regarding new taxes.
5. **It is helpful in removing difficulties of a particular firm** : Whatever problems are there in the working of individual firm or industry can be removed with the help of micro economics.
6. **It is the base of welfare economics** : It provides base for welfare economics. The ultimate aim of all production is consumption. The main aim is the optimum allocation of scarce resources. Price theory of micro economics helps us to do this. The whole structure of welfare economics available to us built entirely on the price theory of perfect competition.
7. **Managerial decision** : Business firm also use micro economics while taking managerial decisions. The cost & demand analysis occupy great significance, it is base for analysing problems of the economy as a whole.

Limitations of micro economics :

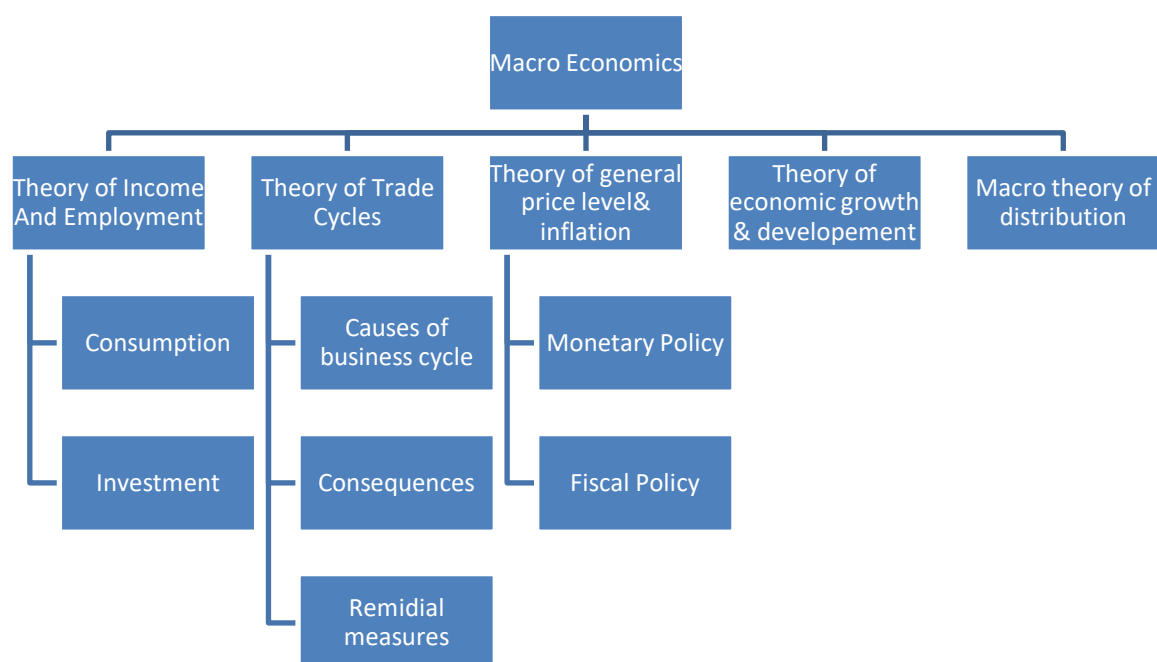
1. **Irrelevance of price theory in practical life** : As the existence or possible prevalence of perfect competition in most markets was questioned. Ever since the usefulness of price theory in the framing of economic policy has been open to doubt.
2. **Abstract nature of price theory** : The study of few units and making a generalization will never give good reliable results.
3. **Consumption and production are independent** : The assumption of the independence of wants & production is not realistic of our present day world the process of satisfying wants which creates production (advertising) & therefore, consumption is dependent on production & production on consumption which is neglected.
4. **Static nature of welfare economics** : It is now recognized that the optimum conditions of welfare are derived from micro economics models that are statics and also relative. They tell us when total output from given inputs would be maximum, provided we take consumers preferences (wants) as data & assume the distribution of income as unchanged.
5. It is too much preoccupied with individual studies. Summation of individual studies will not always lead to correct macro picture or aggregates.
6. Macro Economic concepts like national income, full employment is not studied.

Macro Economics

Macroeconomics is the counterpart of micro economics. It is the study of economics system as whole, it studies not one economic unit like a firm, or an industry but the whole

economic system together. It therefore deals with total or aggregate national income, output & employment, total consumption, saving & investment & the general level of prices. It is also called aggregate economics.

According to Kenneth.E.Boulding : “Macro economics deals not with individual quantities as such but with aggregates of these quantities not with individual income but with national income, not with individual prices but with general price level, not individual output but with national output.”



Importance & use of macro economics

1. **Helpful in understanding the functioning of an economy :** Modern economic system have become more complex. One cannot get clear & correct picture of the functioning & composition of the economy as whole on the basis of micro economics. The study of macro economics is necessary.
2. **Formulation of economic policy :** While making policies, Government depends on the aggregates statics is of economic force like national income, total employment, and total investment. Total or aggregate savings, general price level etc.
3. **Solution of economic problems :** Modern government solves many economic problems with help of macro economics for e.g. the problems of employment, production & national income can be studies only with the help of macro economics. Modern economics provides solution of these problems.
4. **Study of trade cycles :** Trade Cycle or economic fluctuations are serious economic problems. Economic fluctuations are very common in the capitalist economics; this comes in the way of healthy working of the economy. Trade cycles are caused by fluctuations in aggregate income aggregate investment etc., therefore trade cycles can be studied under macroeconomics.

5. **Macroeconomics paradoxes** : It is common experience that many economic activities are justified for individual but they are not justifiable for the economy as a whole. E.g. increasing prices is good for firms but not for industries, saving is good for individuals but not for the economy.
6. **Helpful in furthering the scope of micro economics** : Macroeconomics is also helpful in making laws of micro economics e.g. law of diminishing marginal utility came into being from analysis of consumption habits of aggregates as its principle is made by observing many groups
7. **Changes in the general price levels** : The rise in general prices level & falling value of money is called inflation. Falling general price level or rising value of money is called deflation. We know that economic fluctuations are an obstacle to proper functioning of economy. General Price level is not just the aggregate of price of different product. Macro economics helps us to study how the rise in price of one product influences the other products. E.g. Rise in petrol price.
8. **Study of national income** : National Income reflects the various economic problems of the economy. The economic conditions of different countries can be understood with the study of their national income. National income study has become only with the growth economics.

Limitations of Macro Economics

1. **Too much generalization is of no good** : excessive generalisation make macroeconomics dependable . E.g. borrowing is good in time of crisis , but today the countries are caught in debt crisis .
2. **All units of the aggregated may not be homogenous** : it is not possible that all the individual units will be homogenous .Prof . boulding is of the view that we can add or subtract apples or oranges but not possible to add & subtract apples & buildings
3. **Indiscriminate use of macroeconomics may be irrelevant** : we should take all precautions while using macroeconomics , as an economic model might be suitable for the other .
4. **Statistical and conceptual difficulties** : while estimating national income like aggregates we face these difficulties .
5. **Aggregates may not be important always** : a solution found in general might not be applied to all individual units
6. **Limited applicability** : macroeconomics also suffers from the problem of limited applicability

DIFFERENCE BETWEEN MICRO & MACRO ECONOMICS

1. **Difference in the degree of aggregation** : microeconomics studies the individual unit of the economy like a firm ,individual savings ,and individual income etc .macroeconomics deals with aggregates like national income & aggregate savings . it studies the problem of the economy as a whole
2. **Difference in objective** : microeconomics studies the principles , problems & policies concerning the optimum allocation of resources of a firm & individual . macroeconomics

studies the principles , problems & policies relating full employment of resources & growth of resources of a nation

3. **Difference of subject matter** : microeconomics deals with the determination of price , consumer equilibrium , distribution & welfare . Macroeconomics deals with full employment national income, general price level , trade cycle , economic growth etc.
4. **Difference of method of study** : micro economics establishes relationship between cause and effect of economic phenomenon . macroeconomics are categorized into aggregate demand , aggregate supply , total consumption , and total investment etc, their interdependence is studied under macroeconomics
5. **Macroeconomics paradoxes** : the same thing has different analysis in both micro & macroeconomics . E.g. : savings is beneficial for an individual & his family but if the entire society starts savings ,consumption will decrease leading to decrease in demand , decrease in supply & decrease in income etc .
6. **Different assumptions** : Micro economics assumes full employment, constant production & income. On this basis we can know how production, factors of production are allocated & disturbed among different uses. Macro economics assumes how factors of production are disturbed and thus how full employment can be achieved.
7. **Difference of the forces of equilibrium** : Micro economics studies the equilibrium between the forces of individual or market demand & supply. Macroeconomics analysis deals with the equilibrium between the forces of demand & supply of the whole economy.
8. **Mortal & immortal subjects** : Micro economics deals with individuals and individuals are mortal. Micro economics tool is man who is mortal. Macroeconomics is concerned with aggregates. The tool of its study is society. Society never ends, hence macroeconomics is immortal.

Thought both are different, Micro economics depends on macro economics & Macro economics in turn on macro economics.

Business Economics – Nature & Scope

Business Economics is also called as Managerial Economics helps to show how economics analysis can be used to solve business problems. The main function of manager is Decision making & forward planning. The theory of economics which deals with a number of concepts & principles relating to profits, demand, cost pricing, competition, business cycle etc., is Business Economics.

According to Spencer & Siegel man “Business Economics is the integration of economics theory with business practice for the purpose of facilitating decisions making & forward planning by management.”

According to Joel Dean “Use of economic analysis in formulating policies is known as managerial economics”.

SCOPE & Nature of B.E

SCOPE

- 1) **Demand analysis & forecasting** : Sales of a business firm would depend on the nature of individual & market demand. Before production schedules can be prepared & resources employed, the business man had to estimate demand & forecast future demand. The forecast for future demand for goals set by the firm can serve as a guide to management for maintaining or strengthening market position & enlarging profits. The important topics covered under this area are demand determinants, demand distinction & demand forecasting.
- 2) **Production & Cost Analysis** : A firm has to decide how much it has to produce in short term & long run? What should be the scale of production? What should be the product mix? These questions can be answered through an analysis of production function of the firm. The firm must analyse the factors causing variations in cost, cost variations occurs because the factors determining the cost always are not known & not controllable. The topic covered under production & cost analysis included production functions, cost concepts, cost control, cost output relationship, economics & diseconomies of scales.
- 3) **Profit Management** : Profit is a central economics objective of any business enterprise. On traditional economics analysis, profit maximization is assumed to be the objective of the firm. In reality firms may not aim at profit maximization but they may have profit polices, therefore the decisions concerning level of profits, rate of profit policies & techniques of profit planning etc.
- 4) **Pricing policies, planning & practices** : the success of a business firm depends on the correctness of the pricing decisions. Pricing is very important aspect of business economics . At what price the product is sold in the commodity market ? The important aspects related to this area are pricing methods , differential pricing , product level pricing , price forecasting and analysis of the market structure .
- 5) **Capital management** : investment decisions are the most crucial and critical business decisions , how much to invest ? What should be the rate of investment ? What should be the proportion of new investment & replacement investments ? These decisions imply planning & control of capital expenditure . The important aspect under this area are capital budgeting, cost of capital , rate of return & selection of projects .

NATURE OF BUSINES ECONOMICS

- 1) **Micro in nature** : business economics is the study of levels of business firms. A business manager is concerned with problems of his own business unit. Price theory applicable in business economics is effective to solve business problems .
- 2) **Pragmatic in approach** : It does not involve itself in theoretical controversies. It is the application of economic analysis in decision making.
- 3) **Normative science** : In Business Economics we try to make policies. The law made under economics is applied to the business ethics is a guide to business managers so that no bad quality, no black markets, no artificial scarcities etc. Are created.
- 4) **A scientific Art** : Business firms employ scientific methods of observations reasoning, and verification in analyzing business problems. E.g. Demand forecasting is a scientific analysis.

Business Economics is an art it helps management in the efficient utilization of scarce resources. It includes production costs, demand, price, profit, risk etc. which help management in selecting the best alternative.

- 5) **Study macro environment** : The macroeconomic environment relating to National Income, Business cycles, economic policies of the government relating to business are important to management. The firm has to adjust itself to uncertainties created by environmental factors

Business Economics is thus both normative and positive study.

BUSINESS ECONOMICS

SEMESTER II (2018-2019)

B.Com., (GEN.,COM.,IT.,)

UNIT-I

MARKET STRUCTURE & PERFECT COMPETITION

Definition of market

The word market was derived from the Latin word "mercatus" meaning "to trade". Many economists have defined market in their own words.

According to Benham market is "any area over which buyers and sellers are in close touch with one another, either directly or through dealers, ,that the price obtainable is one part of the market affects the price paid in other parts" In economic sense, a market is a system in which the buyer and the seller bargain for the price of a product, they come to an agreement about the price and quantity of goods and services to be sold and purchased, i.e., the act of buying and selling is decided by this system .it can be a physical market place like olden days, where people come together to exchange goods and services in person or through telephone or computer or a virtual market like(online shopping) where they contact by some medium of communication which helps them in buying and selling the goods , what we have to notice here is ,by the wide and easy communication facility, the price decided in one part of a region, affect the price decided in other parts of the region .Market is a system where a common market price is fixed according to aggregate demand and aggregate supply . Market can be a common commodity market or specialised market like cotton market, money market etc.

Classification of Market can be studied based on various factor like area , time , competition function etc.

Classification of market

1. Based on area

Based on area, market can be classified as local, regional, national and international market. If the buying and selling is confined to a particular village, town or city, we call it as local market. If it is confined to regional, national and international market then it is called as regional, national and international market. The confinement depends on nature of the product, transportation, durability, storage facility etc.

2. Based on competition

Based on competition market structure can be divided as Perfect competition and imperfect competition. Imperfect competition is divided into monopoly, duopoly, oligopoly, and monopolistic competition. The major factors which influence the type of competition are number of sellers, number of buyers, nature of product and entry conditions.

Type of competition	Nature of the Product	Number of sellers	Number of buyers	Entry
Perfect competition	Homogenous	Large	Large	Free entry and free exit
Monopoly	Unique products Different from all other products	One	Many	Ban on entry of other firms
Duopoly	Can be homogenous Or differentiated	Two	Many	Barrier on entry
Oligopoly	Can be homogenous Or differentiated	Few	Many	Barrier on entry
Monopolistic competition	Or differentiated	Many	Large	Free entry and free exit

3. Based on time

When economists had divided opinion about the influence of demand and supply on the market price, Alfred Marshall came out with time element to explain that. According to Marshall, market structure can be divided according to the time element into very short period, short period, long period and very long period. In the very short run period, even the variable input can't be changed. So supply will be perfectly inelastic and market price will be determined according to changes in demand. In the short period variable input can be changed. supply cannot be adjusted to demand and here also demand will be influence market price but not strong as in the case of very short

period .In the long run , all input can be varied and supply will influence the price . In very long period, technology taste and preferences will change and prediction is very difficult.

4. Based on volume of business

The market can be grouped as whole sale market and retail market.

5. Based on nature of transaction

Market can be classified as spot market and future market. In the spot market, goods and services will be sold and

purchased on the spot. In the future market, agreement is made to make future transaction.

6. Based on regulation

Market can be classified as regulated or unregulated market. When government regulates the price and quantity sold in the market, it is called as regulated market if not unregulated. market.

7. Based on status of seller

Market can be divided as primary, secondary and territory primary market consists of manufacturer secondary market consist of wholesale sellers and territory market consist of retailers.

8. According to function

Market can be classified as mixed, specialized, sample, and grading. Mixed market means variety of goods will be sold. In specialized market a particular type of goods are bought and sold like share market and vegetable market etc. In the sample market, firms sell their product to the agent and wholesalers through the sample they send. Market by grade means the dealing done by means of grades. For e.g.: cement, iron rod etc.

9. According to the commodity- it can be divided as product, stock, bullion.

10. on the basis of legality-the market can be classified as legal and illegal.

FIRM

Firm refers to an business enterprise engaged in the production of commodity, firm is a productive unit. it changes the input into output a firm maybe owned, operated and controlled by a single person or controlling body such as the board of director in the case of joint stock companies. A firm maybe a small one a large one,

An industry refers to the group of firms producing similar products for eg: Tata motors is a firm. automobiles industry including all the firm producing cars like Honda, tata, maruti etc.,

EQUILIBRIUM

equilibrium is a state of rest. It is a state of no change. at equilibrium, a firm has no tendency either to expand or contract its output.

according to a Hanson, " a firm will be in equilibrium when it is of no advantage to increase or decrease its advantage ". so at equilibrium, a firm will try to stick to the same position at equilibrium firms wont like to change the market price, it will maintain the same price. Similarly the amount of goods produced and supplied to the market also. it will maintain the same amount of output. the price determined at equilibrium price and output produced and sold as equilibrium output. A rational firm would always like to maximise the profit always but in the short run a firm can have super normal profit, normal profit or loss. In case of a loss the firm will try to minimise the loss but in the long run the firm will have normal profit if it has chronic loss in long run then the firm has to close in long run. Even in the short run the firm has to close down because of loss if the market price is less than short run variable cost.

Equilibrium of the firm can be studied by two methods

1. Marginal cost, marginal revenue approach
2. Total cost, total revenue approach

1. MR MC APPROACH

EQUILIBRIUM CONDITION OF THE FIRM

A firm will be in equilibrium when it satisfies two conditions

1. $MC=MR$
2. MC curve cuts MR curve from below

For monopoly or duopoly firms MC curve can cut MR curve from below, from side or from above but for easiness for the student to understand same conditions is accepted for all the types of competition MC cuts MR curve from below. MR is a marginal revenue which is additional revenue received by the firm by selling one more unit of the product. MC means marginal cost which is the additional cost incurred by the firm to produce one more unit of the product. The first condition says that the additional revenue they receive should be equal to the additional cost they incur. Fulfilling the second condition is also essential for equilibrium we will understand this through a graph. In the y axis we represent MR, MC and in x axis we represent the amount of output produced

(a) perfect competition

Under perfect competition MR curve is a straight line parallel to x axis because a firm under perfect competition is a price taker and whatever amount of output he sells in the market will not make any difference, The additional revenue of the firm received will be the same, which makes the MR curve a straight line (Unlike imperfect competition, where they have to decrease the price to sell more), MC curve is of U-Shape. Because in the initial stage due to the law of increasing returns to scale, it slopes down, then becomes constant and then increases due to diminishing returns to scale.

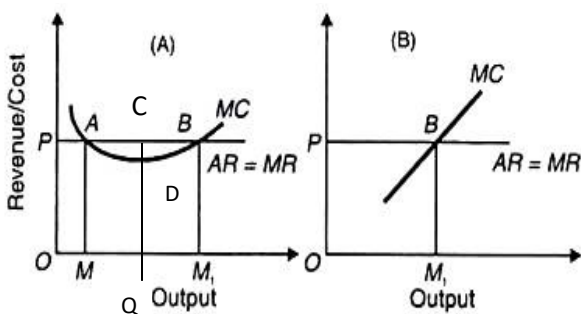


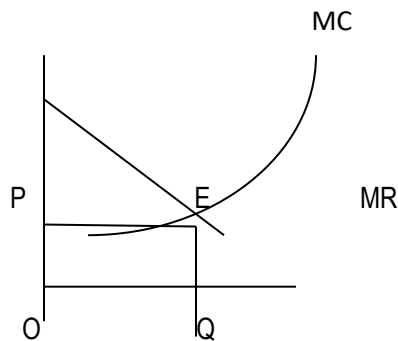
Fig. 1

In the graph at point a MC curve cuts the MR curve from above and the output produced by firm is OM if the firm consider that as equilibrium point and stops production then the firm will lose the cup of profit between ADB, suppose the firm produces OQ amount of output, then the firm's MR is QC & MC is QD. When firm is producing OQ output, it will have an profit of CD per unit. Profit = MR - MC so the firm will continue producing after OM output also and when it stop at M1, where MC=MR that will be

considered as equilibrium point..if it is forcing to produce more than this, then $MC > MR$ which will lead to loss. So B is the equilibrium when $MR=MC$ or MC cuts MR curve from below here the profit will be maximum.

(b) Imperfect competition

Under imperfect competition, the MR curveslope downward because the firm will be able to sell more when the firm reduces price. MC curve is of U shape but for easiness tick mark shape is considered.



Here 'E' is the equilibrium point when MC cuts the MR curve from below. Equilibrium price is OP and OQ is equilibrium quantity of output.

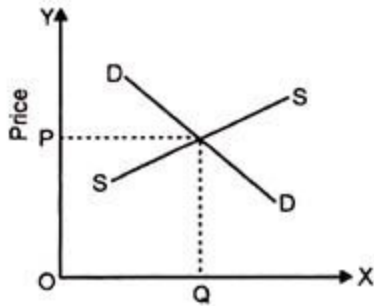
EQUILIBRIUM CONDITION OF AN INDUSTRY

An industry will be in equilibrium state when all the firms are in equilibrium in the long run. i.e. industry doesn't want any change in the output or price or usage of input or technology or employment etc. There should not be any entry or exit of firms. if it has to happen then all the firm must have normal profit in the long run (except monopoly) if the firms in the industry have super normal profit , then new firms will enter the industry , attracted by the profit . If some firms have loss, it will close and exit the industry by which the supply will decrease and the price will rise and the firms in the industry will have normal profit. The industry will be in equilibrium when aggregate demand will be equal to aggregate supply.

So the equilibrium condition of an industry is:-

1. All the firms must be in equilibrium (a) $MC=MR$ (b)MC cuts MR from below.
2. All the firm must earn normal profit in the long run (super normal profit in the case of monopoly and duopoly when both the firm syndicate)

$AC=AR= MC=MR=price$. Will exists in equilibrium.



PERFECT COMPETITION

According to Joan Robinson “perfect competition prevails when the demand for the output of each producer is perfectly elastic. This entails that the number of seller is large so that the output of any one seller is negligible small proportion of the total output of the commodity and 2nd that the buyer are alike in respect of their choice of rival sellers , so that the market is perfect” for e.g.- agriculture product , mud diya, plane glass bangle etc huge amount of commodity is sold in the market nobody can recognise in the market that this is produced by a particular farmer etc(no brands, all can sell at the price decided by the industry)

Assumption or condition or characteristic feature of firm

1 There is large no. of small unorganized sellers. The firm under perfect competition will be very small. the output produced and sold by a single firm form a small part of the total amount of goods supplied by the industry for e.g. even if a farmer produces 10000 bags of food grains, he sells very small amount because the Indian agriculture industry produces and sells 300 million tons of food grains. The sellers are not only small but unorganised because if they are organised then they can manipulate the price.

2. There will be large number of small unorganised buyers. It is not like monopsony (single buyer) or oligopsony, there will be large number of buyers, the number of buyers are so many in the market that an individual buyer can't influence the price. The buyers don't have any cooperation or organisation among themselves so that they can influence the market price.

3 There will be freedom of entry and exit there won't be any natural or artificial restriction on the firm to enter or leave the industry, if the firms have super normal profit i.e. when $AR > AC$, new firms will enter the industry if certain firms have loss then the firm making loss will leave the industry

4. The product produced by all the firm should be homogenous .All the products available in the market should be very similar the buyer should not be in a position to discriminate between the product produced by different producers. Brand names are not used in perfect competition for eg - plane glass bangles sold in the market cannot be discriminated from each other

When all this four conditions are satisfied it is called as pure competition by economists

5. There will be perfect knowledge about the market among buyers and the sellers. The buyer is aware of prevailing

market price so that if the seller charges higher price than others, nobody will buy from him. so he will be forced to charge the same price as charged by other sellers. the buyer are aware of the quality available in the market if any seller sells a product which is of less quality buyer will not buy from him. so seller has to maintain similar quality maintained by competitors

6. There will be perfect mobility of factors of production and goods. When the factors of production move freely production can be done wherever it is needed. If the factors of production and goods doesn't move freely then there will be price difference in different area. When they move freely there will be same price in the entire market.

7. Absence of transportation cost. This will bring same price in all market. If the transport price is prevalent then price difference occurs. Transport cost will be added to price. if the same price has to prevail the transport cost should be absent

8. There will be absence of selling cost because all the goods available in the market are similar. Even if a particular firm gives an advertisement it will benefit the entire industry, not the particular firm which gives advertisement. So it is a waste on the part of firm to give advertisement or some other selling cost practices.

9. All the firms under perfect competition are price takers & they charge the same price. Since the products produced by all the firms are homogeneous, consumer doesn't have preference of one firm's product over the other. So no firm can have a price policy of its own. The market price is determined by the industry based on the aggregate demand and supply in the market.. since each firm forms a small part of the market industry & supply a small part of the market demand, they take up the price decided by the industry.

10. AR curve and MR curve coincide with each other & they are parallel to X axis. AR, average revenue is nothing but market price or aggregate demand curve. It is the revenue per unit of output sold. The firm can sell as many units as it wants in the market at a given price. So the AR curve becomes perfectly elastic i.e. it becomes parallel to X axis. Unlike imperfect competition, the firm can sell its additional product in the market without reducing the price that is at the same price & so the MR curve is also parallel to X axis.

Equilibrium of an industry in the market with the help of demand and supply curve

Perfect competition is a situation which is very perfect and difficult to find in practice. Economist Schumpeter has said that competition starts with monopoly and ends with perfect competition. In olden days perfect competition was seen much, but today it is decreasing because of various factors like money mindedness, economic development etc. certain assumptions must be followed by the industry which are as follows :

Assumptions:

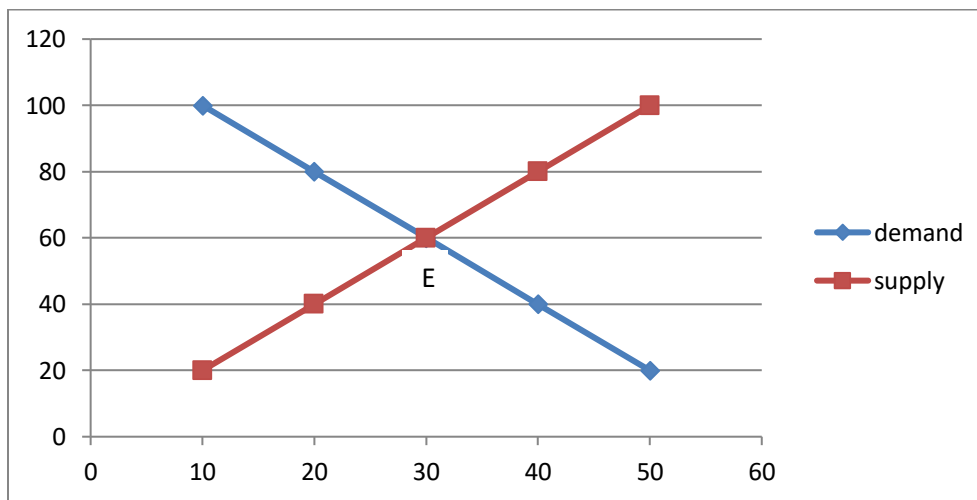
- There will be very large number of unorganized small sellers
- There will be free entry and exit of the firms
- The product produced by all the firms are homogeneous
- There will be perfect mobility of factors of production and goods
- There will be perfect knowledge of the markets among the buyers as well as sellers
- There will be no publicity(advertisement) or selling cost.

Equilibrium price of a commodity, is determined at the point where the aggregate demand for and the aggregate supply of goods in the market are equal to each other. Aggregate supply of the commodity in the market is the

addition of all the goods supplied in the market by all the firms in the industry. So aggregate supply is the supply of the industry. similarly aggregate demand is the demand faced by the industry. The process of price determination is shown through a table given below :

Price	Aggregate supply	Aggregate demand	
10	20	100	
20	40	80	
30	60	60	(EQUILIBRIUM)
40	80	40	
50	100	20	

The above table given shows how the price of the commodity is determined by the forces of demand and supply. when the price of the commodity is rs.10 ,its supply is 20 units, but the demand is 100 units that is the demand is more than the supply at this price if the price rises to rs.20, still demand is more than its supply . when price is increased to rs.30 demand for output is 60 units and supply is also 60 units. In this way rs.30 is the price which equates the demand for that of the supply. This is known as equilibrium price, and 60 is the equilibrium output. If price is increased further, say to rs.40,it extends the supply of goods to 80units,but the demand is only 40. Here , supply is greater than demand. Thus ,we conclude that under perfect competition, price is determined by the interaction of the forces of demand and the supply of the goods. If there is difference between demand for the supply of goods in the market, the price will change and bring it to the equilibrium ,where demand=supply and the price at that point is called as the equilibrium price. The same idea can be explained with the help of the graph drawn below



The same idea of equilibrium can be explained with the help of a graph.

In this graph, the quantity demanded and supplied are taken on the X-Axis and price on the Y-Axis.

- DD=demand curve
- SS= supply curve
- E= equilibrium point

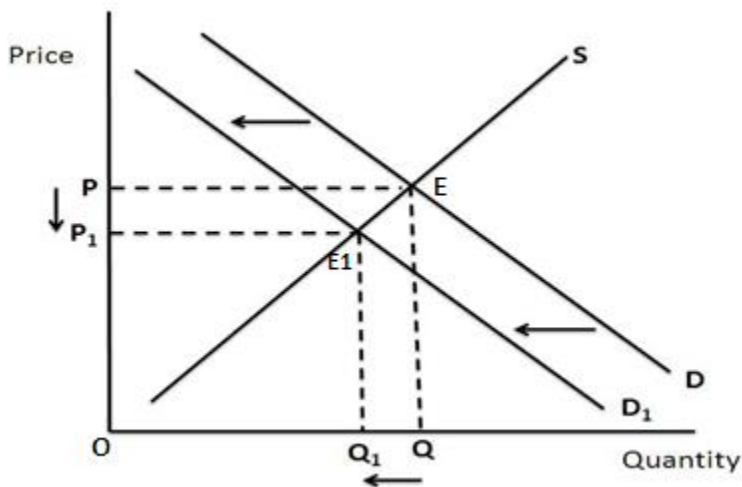
Equilibrium point : The point where the quantity demanded is equal to quantity supplied that is where they are intersecting each other is called as equilibrium point .By drawing a perpendicular line from the point of intersection to the X-Axis, we get the equilibrium quantity demanded and supplied that is OQ is the Equilibrium quantity demanded and supplied .if a line is drawn from E to Y-Axis, it shows the equilibrium price OP.

Effects of a change in demand on price:

We can see that the effect of changes in demand and supply of a commodity on its price .There is directly a relationship between the price of a commodity with its Demand .

In other words,it shows that the price varies directly with the demand. If the demand of a commodity increases, the price increases, with the supply as constant.

The effect of the change in demand on the price of the commodity is shown through the graph :

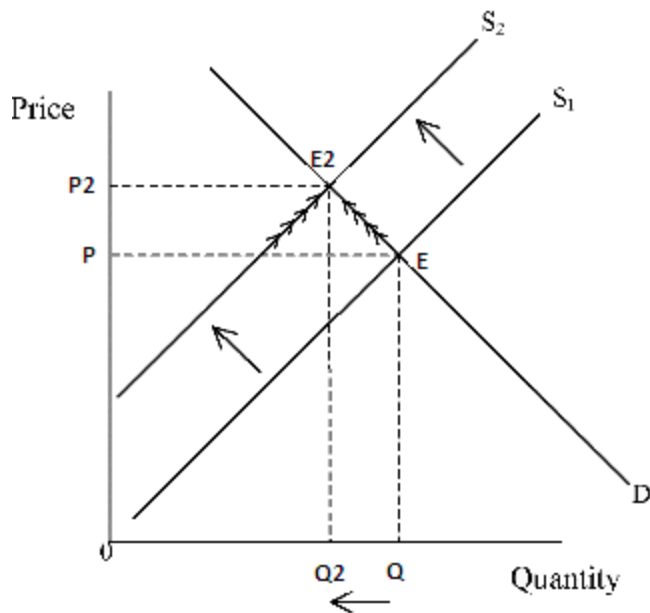


In the graph, S is the supply curve D is the demand curve and E is the equilibrium . At equilibrium of the output demanded and output supplied is equal and equilibrium price is OP and equilibrium output is OQ.

Suppose , the demand for the good decreases for some reason then the demand curve will shift downwards from D to D1 . Here the supply remains constant. Now the new equilibrium point E will become E₁ The equilibrium output will become OQ₁ and the equilibrium price will fall to OP₁. Now we understand as demand falls the equilibrium price falls down through the graph. Similarly when the supply remains constant and the demand rises then the price also will rise. i.e. demand are directly related.

Effect of changes of supply on price :

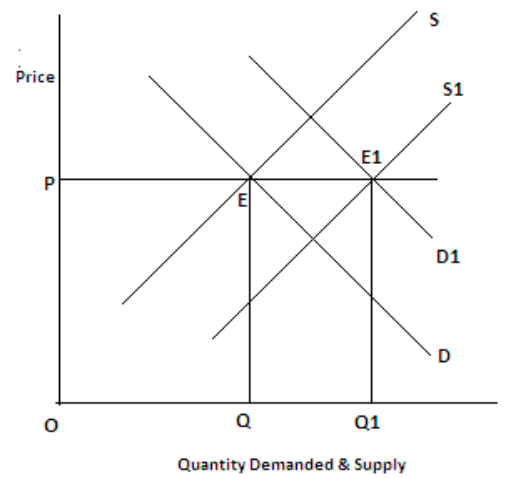
There is inverse relationship between the price and the commodity supplied that is as the supply falls, the price will increase, demand remains constant. This can be shown through a graph :



Let, D be the original demand curve and S1 be the supply curve. The demand curve and the supply curve intersect each other at point E, which is the equilibrium point. We observe that OP is the equilibrium price and OQ is the equilibrium quantity demanded and supplied. Let us assume that the demand remains constant here and due to some reason like improvement in technology let the supply decrease to OQ2 which shifts the curve to the left as S2. With the decrease in the supply the new equilibrium point shifts to E2 which increases the equilibrium price to OP2. Similarly if the supply increases, with the demand remaining constant the price will fall.

Effect of Changes in both demand and supply on Price :

When the changes in the demand is equalized by the changes in supply, then the market price will remain constant. This can be expressed through a graph:



Let D and S be the original demand and supply curve. Here, E the equilibrium point. Suppose, the demand increases from D to D1 and if the supply also increases from S to S1 where the increase (change) in demand is equal to change in supply. Then, the equilibrium point E shifts to E1, but the price remains constant. Here the quantity supplied and demanded increases from OQ to OQ1. Similarly, if the fall in demand is compensated by the fall in supply, then the price remains constant.

Equilibrium of a firm under perfect competition in the short run

The firm will be in equilibrium when $SMC=SMR$ and SMC cuts SMR curve from below in the short run, a firm can have super normal profit, normal profit or loss

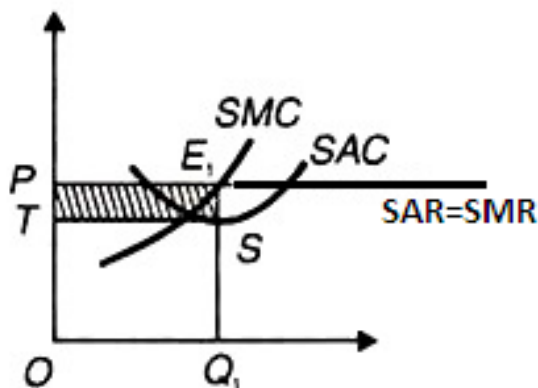
[Key point

In order to the graph easily & find out the equilibrium point

Equilibrium output, Equilibrium price, loss, profit etc., Some easy steps which can be followed is given.

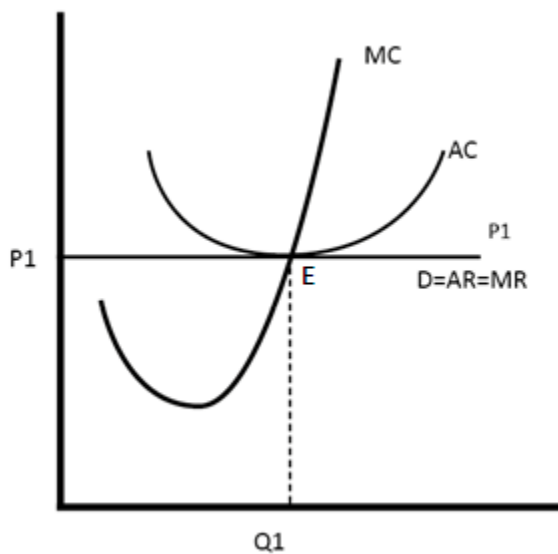
1. Draw the A.R curve
2. Then draw M.R curve
3. Then draw the tick mark shaped M.C curve
4. Now mark the equilibrium point E, where MC is cutting MR.
5. After marking point E, draw a line through E called equilibrium line, parallel to Y-axis.
6. Let it touch the X-axis & mark that point as M & from the origin to that point M represents equilibrium output produced.
7. Find out where this equilibrium line cuts AR curve & from that point, draw a line (parallel to x-axis) to y-axis. Mark the point as P & OP in the Y-axis represents the equilibrium price.
8. Now along the equilibrium line, we have to look where the AC curve is going to cut. So the drawing of the AC curve is very important. If the firm having normal profit, then AC curve must touch (or tangents to) AR curve. If the firm is having super normal profit, then AC curve must cut the equilibrium line below AR curve. If the firm is having loss, then the AC curve must touch the equilibrium line above AR curve.
9. In order to find out total loss or profit, draw a line from AC to Y-axis (parallel to x-axis) the difference between AR & AC box will give profit or loss.
10. For Normal profit, since $AR=AC$, no box will come.]

(a) Super normal profit: The firm which are efficient advanced in technology and which moves towards least cost combination can gain supernormal profit in the short run. The industry determines the price according to the aggregate market and market supply. The firms under perfect competition are price takers is the firm can sell any amount of output at the given market price. so the short run average revenue curve is a straight line parallel to X-Axis showing whatever maybe the output sold, the market price will be the same. Since the firm can sell the additional goods to whatever is its capacity, at the same price, short run marginal revenue curve coincides with AR curve and is parallel to X-Axis. the average cost curve is an U shaped curve. Due to law of returns to scale MC curve is also U shaped but for easiness tick mark is considered. Let us explain the super normal profit of a firm with the help of a graph



Let quantity of output produced and sold be represented in the X-Axis and price, SMR, SAR, SMC, SAC be represented in the Y-Axis. SAR=SMR=Price line or market demand curve for the firm. Equilibrium condition is represented at that situation where $MC=MR$ and MC cuts MR curve from below. In the graph E_1 is the equilibrium point, where profit can be maximized. If a line is dropped from the equilibrium point to the X-Axis, it cuts the X-Axis at Q_1 and OQ_1 represents the equilibrium output and when a line is drawn from equilibrium point to Y-Axis, which represents price, PP is the equilibrium price. When Q_1^{th} output is produced, SAR is E_1Q_1 , whereas SQ_1 is AC. here $AR > AC$ which gives abnormal or super normal profit. For OQ amount of output produced total revenue will be OQ_1E_1P and total cost will be OQ_1ST ($= OQ_1 \times OP$) so the total profit will be $TR-TC$ i.e. $OQ_1E_1P - OQ_1ST$ which is equal to TSE_1P .

(b) Normal profit: under perfect competition, some firms can have normal profits. Normal profit is a situation where $AR=AC$ and $TR=TC$. Normal profit is the minimum amount of profit which an entrepreneur receives. It is equal to opportunity cost of the entrepreneur. If the entrepreneur cannot get minimum amount for the work he does, then he will close the firm and start other work for survival. So economist suggested that minimum amount of remuneration for the entrepreneur (factor payment) must be included in the cost of production itself. Here the firm will work at the minimum point of AC curve.

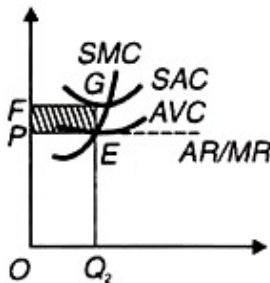


In this graph, MC cuts the MR curve at E point. When extended to X-axis, it gives the equilibrium output OQ_1 and on Y-axis gives the equilibrium price OP . In this situation, SAC (short run average cost curve) coincides with equilibrium point, which is equal to SAR. here $SAC=SMC=SMR=SAR=$ market price

Normal profit = $TR-TC=OQ_1EP_1-OQ_1EP_1$.

Here $TR=TC$

(C) Loss : In the short run , a firm under perfect competition can even undergo loss. The firm can be in equilibrium even in this situation. It will try to minimize the loss. This is the Best it can do. Here, $AC > AR$ and $TC > TR$



In the graph, let Short run $AR=$ Short run MR , which is parallel to X-Axis and let E be the equilibrium point where $MC=MR$ and MC cuts MR curve from below. Here the SAC curve is lying above the SAR curve, showing its inefficiency in bringing down the cost of production when the firm is producing OQ_1 output. When the firm is producing Q_1^{th} output, AR is Q_1E and AC is Q_1G . Here AC is greater than AR and GE is the loss per unit. Since OQ_1 output is produced at equilibrium $OQ_1 \times Q_1E = OQ_1EP = AR \times Q = PR$. $OQ_1 \times Q_2G = OQ_1GF$ which is equal to $AC \times Q = TC$.

Loss = $TR-TC = PEGF$

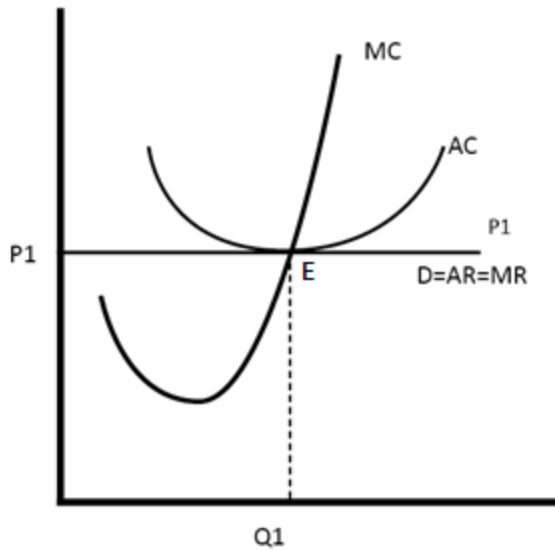
Equilibrium of a firm under perfect competition in long run

In the short run, the firm even with loss managed to produce. The firm's adjusted production with the existing plant capacity is fixed input remain constant and variable inputs only will be changed. but in the long run, the plant capacity can be changed. All the inputs are variable inputs in the long run.

If the firms are having super normal profits then many new firms will be attracted to the industry and with the new firms the price will come down, market supply will increase which will bring normal profit in the long run.

In the long run, the firms which are having loss will exit the industry. the firms in the industry will observe the firms which are having losses they will also improve their techniques of production and try to decrease their cost of production

All the firms in long run will improve their efficiency, try to produce the optimum output to the minimum point of LAC curve, where the cost of production is minimum .so all the firms will have scope in long run .this can be shown with the help of graph

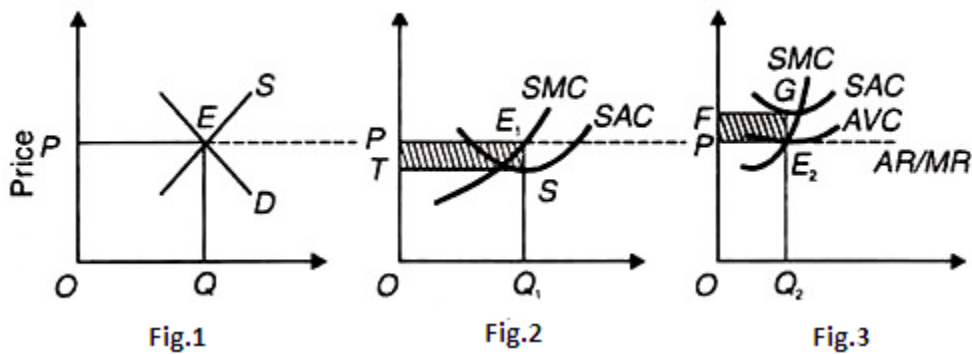


Here, market price= $AR=AC=MC=MR$

Here we see that $AR=AC$, where the firm is having normal profit. The firm is working at the optimum level, that is, there is no idle capacity of the firm. It works at the minimum point of AC curve. Because of perfect competition, the firms with a higher cost of production cannot survive in the industry; they have to quit the industry because they will have a loss. That is why economists say that perfect competition benefits both the economy and the consumer.

Influence of Equilibrium of an industry on firms in short run

The industry will be in equilibrium when all the firms are in equilibrium, where it doesn't want any change. The industry's equilibrium price and output is determined where aggregate market demand is equal to aggregate market supply. Aggregate market supply is attained by the summation of goods supplied by all the firms in the short run, even though the firms are in equilibrium, they can have normal profits, super normal profits, or loss. This depends upon the cost of production of the firms. Here, the firms under perfect competition have to take the price decided by the industry, so the firms whose cost of production is very high will have a loss, whose cost of production is less will have super normal profits. We can understand this through a graph.

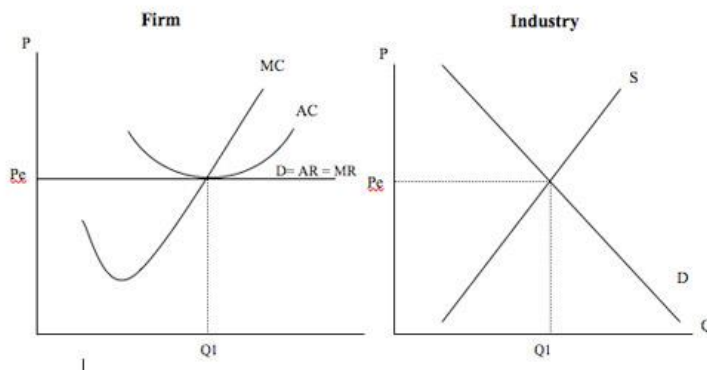


In the graph we have depicted the equilibrium of the industry where $AD=AS$. The meeting point of demand and supply forms equilibrium price and output and equilibrium price OP is taken by the firms. According to the cost condition of the firm, we see that the firm is having super normal profit or loss or normal profit. We observe from figure 1, equilibrium price of industry OP is decided. In figure 2 the cost of production of the firm is less so it is earning super normal profits. In figure 3 we observe that the cost of production of this firm is very high and so it's earning loss in the short run.

Assuming that different firms have different cost of production, in this short run the firms can have super normal profit, normal profit or loss. But all the firms have to take price decided by the industry by aggregate demand curve and aggregate supply.

Influence of equilibrium of the Industry on firms in the Long Run:

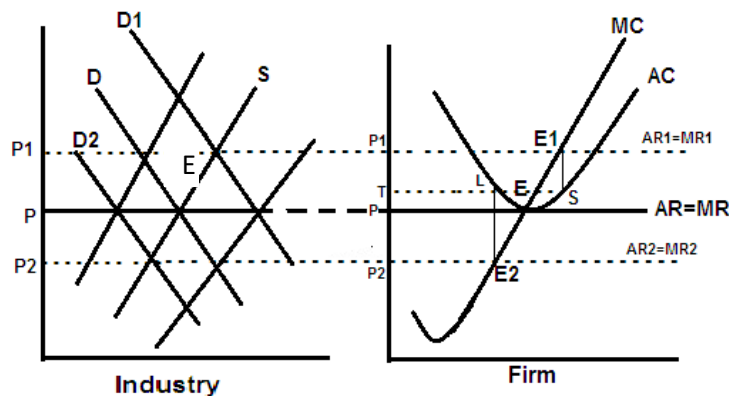
In Long run the industry will be in equilibrium, where all the firms will be in equilibrium and all the firms will be making Normal profits. Let us explain this with the help of the graph assuming all the firms will be having similar cost conditions.



Suppose D is the original aggregate demand for the industry & S is the original aggregate supply for the industry. Then E is the equilibrium and OP is the equilibrium price by the industry. The firms under perfect competition take this price & E is the equilibrium conditions for all the firms existing in the industry. All the firms are earning Normal profits. This is the long run equilibrium of the firm.

Now let us explain the situation with another graph where if the demand in the market increases by some reason, the market price will increase and due to this increase in price, firms will start earning super normal profit. Attracted by his super normal profit many firms will enter the industry and by this the market supply will increase and so once again the price will come down and firms will start earning only normal profits.

Suppose due to some reasons like depression, fall in the purchasing power the market demand falls, then the market price will fall. With the fall in the price, firms will start earning loss. The most efficient firms or small firms cannot withstand loss for long & start exiting the industry, which will decrease the supply & so the price will increase & so the firms will start earning normal profit.



- Suppose D is the original demand curve of the industry & S is the original supply curve of the industry. E will be the equilibrium point, where demand = supply. Here OP is determined as the equilibrium price. This equilibrium price OP is taken by all the firms, where they are in equilibrium at E , where Market price = $AR = MR = MC = AC$. Here all the firms will have normal profit.
- In the market, due to some reason when the demand rises, the demand curve move upwards from D to D_1 , because of this the price also will move from OP to OP_1 . When the firm accepts this price, AR curve becomes AR_1 and the equilibrium E becomes E_1 . Now the firms will start earning super normal profits P_1E_1ST . Attracted by this abnormal profit, new firms will enter the industry & the supply of the industry increases to S_1 . With the increased aggregate supply in the market, the price once again falls to OP . by this in the long run they will once again start earning normal profit.
- Due to some reason now let the market demand fall from D to D_2 . Now the market price will fall to OP_2 . When the firm takes up this price, the AR curve will become AR_2 . The equilibrium will become E_2 . and the firms will start having loss of P_2E_2LT . unable to withstand the loss some of the firms exit the industry & so the aggregate supply of the industry falls to S_2 from S_1 . because of this the price will rise from OP_2 to OP_1 and the firms will start earning normal profit.

Thus in the L.R. both the industry and the firm will have normal profit.

