

UNIT-I

INTRODUCTION TO ECONOMICS

Economics is the branch of social science which deals with the philosophical approach that deals with production, distribution, exchange and consumption of various commodities in economic systems. It related to how scarce resources can be used to increase wealth and human welfare. The central focus of economics is on scarcity of resources and choices among their alternative uses. The resources or inputs available to produce goods are limited or scarce. Economics is a study of human activity both at individual and national level. The economists of early age treated economics merely as the science of wealth. Human beings are aimed for earning and spending money to satisfy our wants such as food, clothing, shelter and others. Activities in which earning of money and spending is involved is known as “Economic Activities”. Adam smith known as father of Economics, during 18th century defined economics as study of nature and uses of national wealth.

Two major factors are responsible for the emergence of economic problems. They are: i) the existence of unlimited human wants and ii) the scarcity of available resources. The numerous human wants are to be satisfied through the scarce resources available in nature. Economics deals with how the numerous human wants are to be satisfied with limited resources. Thus, the science of economics centers on wants - effort - satisfaction.

Economics not only covers the decision-making behavior of individuals but also the macro variables of economies like national income, public finance, international trade and so on. Economics is a study of human activity both at individual and national level. The economists of early age treated economics merely as the science of wealth. The reason for this is clear. Every one of us in involved in efforts aimed at earning money and spending this money to satisfy our wants such as food, Clothing, shelter, and others. Such activities of earning and spending money are called Economic activities”. It was only during the eighteenth century that Adam Smith, the Father of Economics, defined economics as the study of nature and uses of national wealth□.

Economics is a Social Science: In primitive society, the connection between wants efforts and satisfaction is close and direct. But in modern Society things are not so simple and straight. Here

man produces what he does not consume and consumes what he does not produce. When he produces more, he has to sell the excess quantity. Similarly, he has to buy a product which is not produced by him. Thus, the process of buying and selling which is called as Exchange comes in between wants efforts and satisfaction. Nowadays, most of the things we need are made in factories. To make them the worker gives his labor, the land lord his land, the capitalist his capital, while the businessman organizes the work of all these. They all get reward in money.

Thus we can say that the subject-matter of Economics is

1. Consumption –the satisfaction of wants
2. Production- producing things, making an effort to satisfy wants.
3. Exchange-its mechanism, money, credit, banking etc.
4. Distribution-sharing of all that is produced in the country.

SCIENTIFIC OF ECONOMICS: Several economists have defined economics taking different aspects into account. The word ‘Economics’ was derived from two Greek words, **oikos** (a house) and **nemein** (to manage) which would mean ‘**managing an household**’ using the limited funds available, in the most satisfactory manner possible.

i) **Wealth Definition Adam smith (1723 - 1790)**: in his book “An Inquiry into Nature and Causes of Wealth of Nations” (1776) defined economics as the science of wealth. He explained how a nation’s wealth is created. He considered that the individual in the society wants to promote only his own gain and in this, he is led by an “invisible hand” to promote the interests of the society though he has no real intention to promote the society’s interests. Criticism: Smith defined economics only in terms of wealth and not in terms of human welfare.

ii) **Ruskin and Carlyle**: condemned economics as a ‘dismal science’, as it taught selfishness which was against ethics. However, now, wealth is considered only to be a mean to end, the end being the human welfare. Hence, wealth definition was rejected and the emphasis was shifted from ‘wealth’ to ‘welfare’.

iii) **Welfare Definition Alfred Marshall (1842 - 1924)**: wrote a book “Principles of Economics” (1890) in which he defined “Political Economy” or Economics is a 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 the material requisites of well being”. The important features of Marshall’s definition are as follows: a) According to Marshall, economics is a study of mankind in the ordinary business of life, i.e., economic aspect of human life. b) Economics studies both individual and social actions aimed at promoting economic welfare of people. c) Marshall makes a distinction between two types of things, viz.

material things and immaterial things. Material things are those that can be seen, felt and touched, (E.g.) book, rice etc. Immaterial things are those that cannot be seen, felt and touched. (E.g.) skill in the operation of a thrasher, a tractor etc., cultivation of hybrid cotton variety and so on. In his definition, Marshall considered only the material things that are capable of promoting welfare of people

iv) **Welfare Definition Lionel Robbins:** published a book “An Essay on the Nature and Significance of Economic Science” in 1932. According to him, “economics is a science which studies human behaviour as a relationship between ends and scarce means which have alternative uses”. The major features of Robbins’ definition are as follows: a) Ends refer to human wants. Human beings have unlimited number of wants. b) Resources or means, on the other hand, are limited or scarce in supply. There is scarcity of a commodity, if its demand is greater than its supply. In other words, the scarcity of a commodity is to be considered only in relation to its demand. c) The scarce means are capable of having alternative uses. Hence, anyone will choose the resource that will satisfy his particular want.

v) **Robbins:** does not make any distinction between goods conducive to human welfare and goods that are not conducive to human welfare. In the production of rice and alcoholic drink, scarce resources are used. But the production of rice promotes human welfare while production of alcoholic drinks is not conducive to human welfare. However, Robbins concludes that economics is neutral between ends. b) In economics, we not only study the micro economic aspects like how resources are allocated and how price is determined, but we also study the macro- economic aspect like how national income is generated. But, Robbins has reduced economics merely to theory of resource allocation. c) Robbins definition does not cover the theory of economic growth and development.

vi) **Prof. Paul Samuelson:** defined economics as “the study of how men and society choose, with or without the use of money, to employ scarce productive resources which could have alternative uses, to produce various commodities over time, and distribute them for consumption, now and in the future among various people and groups of society”. The major implications of this definition are as follows: a) Samuelson has made his definition dynamic by including the element of time in it. Therefore, it covers the theory of economic growth. b) Samuelson stressed the problem of scarcity of means in relation to unlimited ends. Not only the means are scarce, but they could also be put to alternative uses. c) The definition covers various aspects like production, distribution and consumption. Of all the definitions discussed above, the ‘growth’ definition stated by Samuelson appears to be the most satisfactory.

SCOPE & NATURE OF ECONOMIC:

Microeconomics studies the actions of individual consumers and firms; managerial economics is an applied specialty of this branch. Macroeconomics deals with the performance, structure, and behavior of an economy as a whole. Managerial economics applies microeconomic theories and techniques to management decisions. It is more limited in scope as compared to microeconomics. Macroeconomists study aggregate indicators such as GDP, unemployment rates to understand the functions of the whole economy.

Microeconomics and managerial economics both encourage the use of quantitative methods to analyze economic data. Businesses have finite human and financial resources; managerial economic principles can aid management decisions in allocating these resources efficiently. Macroeconomics models and their estimates are used by the government to assist in the development of economic policy.

MICROECONOMICS

The term **micro** means small. The study of an individual consumer or a firm is called microeconomics (also called the *Theory of Firm*). Micro means „one millionth“. Microeconomics deals with behavior and problems of single individual and of micro-organization. Managerial economics has its roots in microeconomics and it deals with the micro or individual enterprises. It is concerned with the application of the concepts such as price theory, Law of Demand and theories of market structure and so on.

Micro-economic theory takes the total quantity of resources as given and seeks to explain how they are assigned to the production of different goods. Allocation of resources determines what goods shall be produced and how they shall be produced. In a free market economy, the allocation of resources to the production of various goods depends upon the prices of the various goods and prices of the various resources or factors of production. Hence, micro-economics proceeds to analyses how the relative prices of goods and factors are determined in order to explain how the allocation of resources is determined. Therefore, the theory of product pricing and theory of factor pricing or the theory of distribution fall within the domain of micro-economics.

Micro-economics also seeks to explain whether the allocation of resources determined is efficient. The efficiency in allocation of resources is achieved by allocating the resources in such a way that maximizes the satisfaction of the people. There are three types of efficiencies, which include in economic efficiency- efficiency in production, efficiency in distribution of goods among the people and overall economic efficiency, that is, efficiency in the direction of production. Micro-economic theory reveals under what conditions these efficiencies are attained

Importance of Micro Economics:

Micro Economics has both theoretical and practical importance. From the theoretical point of view it explains the function of a free intense economics it tells as how consumer and producer take the decision for millions of goods and services to consume and produce. It tells us how

goods and services distributed among them. It explains the determination of the relative prices of various goods and services. For Practical importance micro economics helps in the formulation of economics policies calculated to promote efficiency in production and welfare of the masses. In professor Lerner's words Micro Economics theory facilitates the understanding of what would be a hopelessly complicated confusion of billions of facts by constructing simplified model of behaviors.

Limitation of Micro Economics: Micro Economics has some limitations A. It cannot give an idea of the functioning of the economy as whole. B. It assume full employment which is rare phenomena, it is therefore, an unrealistic assumption.

MACROECONOMICS

The term „**macro** means large. The study of „aggregate or total level of economic activity in a country is called *macroeconomics*. It studies the flow of economics resources or factors of production (such as land, labor, capital, organization and technology) from the resource owner to the business firms and then from the business firms to the households. It deals with total aggregates, for instance, total national income total employment, output and total investment. It studies the interrelations among various aggregates and examines their nature and behavior, their determination and causes of fluctuations in the. It deals with the price level in general, instead of studying the prices of individual commodities. It is concerned with the level of employment in the economy. It discusses aggregate consumption, aggregate investment, price level, and payment, theories of employment, and so on. Though macroeconomics provides the necessary framework in term of government policies etc., for the firm to act upon dealing with analysis of business conditions, it has less direct relevance in the study of theory of firm.

KEY DIFFERENCES BETWEEN MICRO AND MACRO ECONOMICS

The points given below explain the difference between micro and macro economics in detail:

1. Microeconomics studies the particular market segment of the economy, whereas Macroeconomics studies the whole economy that covers several market segments.
2. Micro economics stresses on individual economic units. As against this, the focus of macro economics is on aggregate economic variables.
3. While microeconomics is applied to operational or internal issues, environmental and external issues are the concern of macro economics.
4. Microeconomics deals with an individual product, firm, household, industry, wages, prices, etc., while Macroeconomics deals with aggregates like national income, national output, price level, etc.
5. Microeconomics covers issues like how the price of a particular commodity will affect its quantity demanded and quantity supplied and vice versa while Macroeconomics covers major issues of an economy like unemployment, monetary/ fiscal policies, poverty, international trade, etc.
6. Microeconomics determines the price of a particular commodity along with the prices of complementary and the substitute goods, whereas the Macroeconomics is helpful in maintaining the general price level.
7. While analyzing any economy, micro economics takes a bottom-up approach, whereas the macroeconomics takes a top-down approach into consideration.

Basis For Comparison	Microeconomics	Macroeconomics
Meaning	The branch of economics that studies the behavior of an individual consumer, firm, family is known as Microeconomics.	The branch of economics that studies the behavior of the whole economy, (both national and international) is known as Macroeconomics.
Deals with	Individual economic variables	Aggregate economic variables
Business Application	Applied to operational or internal issues	Environment and external issues
Scope	Covers various issues like demand, supply, product pricing, factor pricing, production, consumption, economic welfare, etc.	Covers various issues like, national income, general price level, distribution, employment, money etc.
Importance	Helpful in determining the prices of a product along with the prices of factors of production (land, labor, capital, entrepreneur etc.) within the economy.	Maintains stability in the general price level and resolves the major problems of the economy like inflation, deflation, unemployment and poverty as a whole.
Limitations	It is based on unrealistic assumptions, i.e. In microeconomics it is assumed that there is a full employment in the society which is not at all possible.	It has been analyzed that 'Fallacy of Composition' involves, which sometimes doesn't prove true because it is possible that what is true for aggregate may not be true for individuals too.

STATIC AND DYNAMIC ECONOMY

In economics, the concept of static refers to a situation where there is a movement. But this movement is continuous, certain, regular and constant. Static economics does not deal with the unexpected changes. It studies only the expected economic activities. There are no windfall changes or fluctuations in economic activities. According to Prof. Harrod, "An economy in which rates of output are constant is called static." Economic activities are repeated in different time periods in a static economy.

No changes in economic activities occur. For example, India's national income increased by 5% in 1977-78. The increase in 1978-79 and 1979-80 was also 5%. The study of national income is called a static analysis because the rate of increase in national income is the same. In other words, this study of India's national income shows that Indian economy passed through a

stationary state during these years. According to J R. Hicks, “Economic statics covers that part of economic theory where we do not trouble about dating.” Scope and Importance of Static Economics: Static economics occupy an important role in economics. According to Prof. Harrod,

“Statics will remain an important part of the whole economics.” We can explain the importance and scope of static economics as under:

1. It is the simple and easy method of economic analysis. It is easier to understand and economical in thought.
2. It is the basis of the principle of free trade. The principle of free trade which was favoured by classical economists like Adam Smith is an integral part of static economics.
3. Robbins’ definition is also the subject matter of static economics. Robbins defined economics as a science which studies human behaviour as a relationship between ends and scarce means which have alternative uses. This definition is a part of static economics.
4. Static economics gives knowledge of the conditions of equilibrium. It tells that price is determined where demand for the supply of goods is equal. Similarly, income is in equilibrium where planned investment and planned savings are equal.
5. It is the basis of dynamic analysis. Prof. Hicks has pointed out that static economics occupies an important role because it gives a lot of information for the proper understanding of dynamic economics. We can understand the path of equilibrium only after studying the conditions of equilibrium.
6. Keynes’ theory is also static in nature. It shows only a once-over change of variables like consumption function, multiplier, liquidity preference, etc. The effect of once-over change of economic valuables is studied in static economics.

Limitations of Static Economic Analysis: Static economic analysis has its drawbacks too. They are given below:

1. **Constancy of Variables:** Prof. Clark and Stigler have assumed many economic variables as constant. They are population, quantity of capital, natural resources, techniques of production, habits and fashions, etc. We know that these economic factors change in reality. So static economic analysis is far from reality.
2. **Unrealistic Assumptions:** Static analysis is based on unreal assumptions like perfect competition, perfect mobility, perfect knowledge, full employment, etc. These assumptions are far from the real world. That is why Prof. Hicks said, “Stationary state in the end is nothing but an evasion.”
3. **It ignores Time Element:** Another shortcoming of the static analysis is that it studies a timeless economy. But in reality, many changes occur with the passage of time. Therefore, it gives a narrow explanation of economic problems.

4. **It does not Explain the Path of Equilibrium:** Static analysis explains only the final state of equilibrium. And comparative statics compares only the two final equilibrium states. It does not show how this new equilibrium has been reached. Though comparative static economic analysis has many drawbacks, yet it occupies an important role in economics. Many important classical laws are a part of static economic analysis. Moreover, it is a simple type of economic analysis. It is easier to understand.

Concept of Dynamic Economics: The concept of dynamics is derived from Physics. It refers to a state where there is a change such as movement. Tides of the sea, a bird flying in the sky are examples of dynamics. But the word 'dynamic' has a different meaning in economics. We have known that there is movement in statics also but this movement is certain, regular and expected. While dynamics refers to that movement which is uncertain, unexpected and irregular. Therefore, an aero plane flying in the sky is in a dynamic state only if its direction, height and speed are uncertain. We know from day-to-day experience that fluctuations occur in the economy quite often. And it is not possible to make correct predictions about such fluctuations. The concept of dynamics is nearer to reality. In dynamic economics we study the economic variables like consumption function, income and investment in a dynamic state. In the real world, economic variables like population, capital, techniques of production, fashions, habits, etc. do not change at a constant rate. The rate of change is different at different times. For example, the population of a country may increase at a rate of 2% in the first year; 3% in the second year and 5% in the third year, if the other economic variables change at unequal rates, the rate of output will also change at different times. In a dynamic state, there is uncertainty of every change. So, it is not possible to make correct predictions. Recently the concept of dynamics has been applied to the economy as a whole, Prof. Clark has pointed out the following features of a dynamic economy:

- (i) In a dynamic economy, population grows;
- (ii) Quantity of capital grows;
- (iii) Modes of production improve;
- (iv) Industrial institutions undergo changes. Inefficient organizations are replaced by efficient organizations.
- (v) Habits of the people, fashions and customs change, as wants of the people increase.

We can conclude by saying that dynamic economics relates to a dynamic economy where uncertainty and expectations play their part.

Scope and Importance of Dynamic Economics: Dynamic economics is becoming more and more popular since 1925. Though the principles advocated by Clark and Aftalian were dynamic in nature yet their main purpose was to explain the business fluctuations. After 1925, dynamic economics became popular not only in business fluctuations but also in the determination of

income and growth models. The following points explain the scope and importance of dynamic economics:

1. Study of Time Element: Time element occupies an important role in dynamic economics. Economic problems concerning continuous change of economic variables and path of change can be studied only in dynamic economics.

2. Trade Cycles: Theories of trade cycles have been advocated only through the introduction of dynamic economics. Theories of trade cycles are based on dynamic economics as they refer to the fluctuations of the different time periods.

3. Basis of many Economic Theories: Dynamic economics has an important place in economics because many economic theories are based on it. For example, saving and investment theory, theory of interest, effect of time element in price determination, etc. are based on dynamic economics.

4. More Flexible Approach: Dynamic analysis is more flexible. Models regarding the possibilities of economic change can be development in dynamic analysis. That is why it has been found a useful mode of study. Dynamic economics is also useful in solving the problems of economic planning, economic growth and trade cycles.

5. Realistic Approach: Dynamic economic analysis is nearer to the reality. In a real world, economic variables like national income, consumption, etc. change irregularly and uncertainly. Moreover, economic variables of the previous period also affect the present economy. And time clement occupies an important role in economic analysis.

Limitations of Dynamic Economics: Dynamic economic analysis has its shortcomings too. It is difficult to understand. Its main limitations are the following:

1. Complex Approach: Dynamic economic analysis is a complex approach for the study of economic variables because it is based on time element. To find solutions of various problems, we have to make use of mathematics and economics which is beyond the understanding of a common man.

2. Not Fully Developed: Many economists like Samuelson and Harrod, have developed dynamic approach of economic analysis. They have developed their t

The Deductive Method:

Deduction Means reasoning or inference from the general to the particular or from the universal to the individual. The deductive method derives new conclusions from fundamental assumptions or from truth established by other methods. It involves the process of reasoning from certain laws or principles, which are assumed to be true, to the analysis of facts.

Then inferences are drawn which are verified against observed facts. Bacon described deduction as a “descending process” in which we proceed from a general principle to its consequences. Mill characterized it as a priori method, while others called it abstract and analytical.

Deduction involves four steps:

- (1) Selecting the problem.
- (2) The formulation of assumptions on the basis of which the problem is to be explored.
- (3) The formulation of hypothesis through the process of logical reasoning whereby inferences are drawn.
- (4) Verifying the hypothesis. These steps are discussed as under.

(1) Selecting the problem: The problem which an investigator selects for enquiry must be stated clearly. It may be very wide like poverty, unemployment, inflation, etc. or narrow relating to an industry. The narrower the problem the better it would be to conduct the enquiry.

(2) Formulating Assumptions: The next step in deduction is the framing of assumptions which are the basis of hypothesis. To be fruitful for enquiry, the assumption must be general. In any economic enquiry, more than one set of assumptions should be made in terms of which a hypothesis may be formulated.

(3) Formulating Hypothesis: The next step is to formulate a hypothesis on the basis of logical reasoning whereby conclusions are drawn from the propositions. This is done in two ways: First, through logical deduction. If and because relationships (p) and (q) all exist, then this necessarily implies that relationship (r) exists as well. Mathematics is mostly used in these methods of logical deduction.

(4) Testing and Verifying the Hypothesis: The final step in the deductive method is to test and verify the hypothesis. For this purpose, economists now use statistical and econometric methods. Verification consists in confirming whether the hypothesis is in agreement with facts. A hypothesis is true or not can be verified by observation and experiment. Since economics is concerned with human behaviour, there are problems in making observation and testing a hypothesis.

For example, the hypothesis that firms always attempt to maximise profits, rests upon the observation that some firms do behave in this way. This premise is based on a priori knowledge which will continue to be accepted so long as conclusions deduced from it are consistent with the facts. So the hypothesis stands verified. If the hypothesis is not confirmed, it can be argued that the hypothesis was correct but the results are contradictory due to special circumstances.

Under these conditions, the hypothesis may turn out to be wrong. In economics, most hypotheses remain unverified because of the complexity of factors involved in human behavior which, in turn, depend upon social, political and economic factors. Moreover, controlled experiments in a laboratory are not possible in economics. So the majority of hypotheses remain untested and unverified in economics.

Merits of Deductive Method:

The deductive method has many advantages.

(1) Real: It is the method of “intellectual experiment,” according to Boulding. Since the actual world is very complicated, “what we do is to postulate in our own minds economic systems which are simpler than reality but easier to grasp. We then work out the relationship in these simplified systems and by introducing more and more complete assumptions, finally work up to the consideration of reality itself.” Thus, this method is nearer to reality.

(2) Simple: The deductive method is simple because it is analytical. It involves abstraction and simplifies a complex problem by dividing it into component parts. Further, the

hypothetical conditions are so chosen as to make the problem very simple, and then inferences are deduced from them.

(3) Powerful: It is a powerful method of analysis for deducing conclusions from certain facts. As pointed out by Cairnes, The method of deduction is incomparably, when conducted under proper checks, the most powerful instrument of discovery ever wielded by human intelligence.

(4) Indispensable: The use of deductive method is indispensable in sciences like economics where experimentation is not possible. As pointed out by Gide and Rist, “In a science like political economy, where experiment is practically impossible, abstraction and analysis afford the only means of escape from those other influences which complicate the problem so much.”

Demerits of Deductive Method:

Despite these merits, much criticism has been levelled against this method by the Historical School which flourished in Germany.

1 .Unrealistic Assumption: Every hypothesis is based on a set of assumptions. When a hypothesis is tested, assumptions are indirectly tested by comparing their implications with facts. But when facts refute the theory based on the tested hypothesis, the assumptions are also indirectly refuted. So deduction depends upon the nature of assumptions. If they are unrealistic, in this method, economists use the *ceteris paribus* assumption. But other things seldom remain the same which tend to refute theories.

2. Not Universally Applicable: Often the conclusions derived from deductive reasoning are not applicable universally because the premises from which they are deduced may not hold good at all time and places. For instance, the classicists assumed in their reasoning that particular conditions prevailing in England of their times were valid universally. This supposition was wrong. Prof. Lerner, therefore, points out that the deductive method is simply “armchair analysis” which cannot be regarded as universal.

3. Incorrect Verification: The verification of theories, generalizations or laws in economics is based on observation. And right observation depends upon data which must be correct and adequate. If a hypothesis is deduced from wrong or inadequate data, the theory will not correspond with facts and will be refuted. For instance, the generalizations of the classicists were based on inadequate data and their theories were refuted. As pointed out by ircholson, “the great danger of the deductive method lies in the natural aversion to the labor of verification.”

4. Abstract Method: The deductive method is highly abstract and requires great skill in drawing inferences for various premises. Due to the complexity of certain economic problems, it becomes difficult to apply this method even at the hands of an expert researcher. More so, when he uses mathematics or econometrics.

5. Static Method:This method of analysis is based on the assumption that economic conditions remain constant. But economic conditions are continuously changing. Thus this is a static method which fails to make correct analysis.

6. Intellectually: The chief defect of the deductive method “lies in the fact that those who follow this method may be absorbed in the framing of intellectual toys and the real world may be forgotten in the intellectual gymnastics and mathematical treatment.”

The Inductive Method:

Induction “is the process of reasoning from a part to the whole, from particulars to generals or from the individual to the universal.” Bacon described it as “an ascending process” in which facts are collected, arranged and then general conclusions are drawn.

The inductive method was employed in economics by the German Historical School which sought to develop economics wholly from historical research. The historical or inductive method expects the economist to be primarily an economic historian who should first collect material, draw generalisations, and verify the conclusions by applying them to subsequent events. For this, it uses statistical methods. The Engel’s Law of Family Expenditure and the Malthusian Theory of Population have been derived from inductive reasoning.

The inductive method involves the following steps:

1. The Problem: In order to arrive at a generalisation concerning an economic phenomenon, the problem should be properly selected and clearly stated.

2. Data: The second step is the collection, enumeration, classification and analysis of data by using appropriate statistical techniques.

3. Observation: Data are used to make observation about particular facts concerning the problem.

4. Generalisation: On the basis of observation, generalisation is logically derived which establishes a general truth from particular facts.

Thus induction is the process in which we arrive at a generalisation on the basis of particular observed facts.

The best example of inductive reasoning in economics is the formulation of the generalisation of diminishing returns. When a Scottish farmer found that in the cultivation of his field an increase in the amount of labour and capital spent on it was bringing in less than proportionate returns year after year, an economist observed such instances in the case of a number of other farms, and then he arrived at the generalisation that is known as the Law of Diminishing Returns.

Merits of Inductive Method:

The chief merits of this method are as follows:

1) Realistic: The inductive method is realistic because it is based on facts and explains them as they actually are. It is concrete and synthetic because it deals with the subject as a whole and does not divide it into component parts artificially

(2) Future Enquiries: Induction helps in future enquiries. By discovering and providing general principles, induction helps future investigations. Once a generalisation is established, it becomes the starting point of future enquiries.

(3) Statistical Method: The inductive method makes use of the statistical method. This has made significant improvements in the application of induction for analysing economic problems of wide range. In particular, the collection of data by governmental and private agencies or macro variables, like national income, general prices, consumption, saving, total employment, etc., has increased the value of this method and helped governments to formulate economic policies pertaining to the removal of poverty, inequalities, underdevelopment, etc.

(4) Dynamic: The inductive method is dynamic. In this, changing economic phenomena can be analysed on the basis of experiences, conclusions can be drawn, and appropriate remedial measures can be taken. Thus, induction suggests new problems to pure theory for their solution from time to time.

(5) Historico-Relative: A generalisation drawn under the inductive method is often historico-relative in economics. Since it is drawn from a particular historical situation, it cannot be applied to all situations unless they are exactly similar. For instance, India and America differ in their factor endowments. Therefore, it would be wrong to apply the industrial policy which was followed in America in the late nineteenth century to present day India. Thus, the inductive method has the merit of applying generalisations only to related situations or phenomena.

Demerits of Inductive Method:

However, the inductive method is not without its weaknesses which are discussed below.

(1) Misinterpretation of Data: Induction relies on statistical numbers for analysis that “can be misused and misinterpreted when the assumptions which are required for their use are forgotten.”

(2) Uncertain Conclusions: Boulding points out that “statistical information can only give us propositions whose truth is more or less probable it can never give us certainty.”

(3) Lacks Concreteness: Definitions, sources and methods used in statistical analysis differ from investigator to investigator even for the same problem, as for instance in the case of national income accounts. Thus, statistical techniques lack concreteness.

(4) Costly Method: The inductive method is not only time-consuming but also costly. It involves detailed and painstaking processes of collection, classification, analyses and interpretation of data on the part of trained and expert investigators and analysts

(5) Difficult to Prove Hypothesis: Again the use of statistics in induction cannot prove a hypothesis. It can only show that the hypothesis is not inconsistent with the known facts. In reality, collection of data is not illuminating unless it is related to a hypothesis.

(6) Controlled Experimentation not Possible in Economics: Besides the statistical method, the other method used in induction is of controlled experimentation. This method is extremely useful in natural and physical sciences which deal with matter. But unlike the natural sciences, there is little scope for experimentation in economics because economics deals with human behaviour which differs from person to person and from place to place.

ECONOMIC PROBLEM

The **economic problem** – sometimes called the **basic** or **central economic problem** – asserts that an economy's finite resources are insufficient to satisfy all human wants and needs. It assumes that human wants are unlimited, but the means to satisfy human wants are limited. The economic problem is the problem of rational management of resources or the problem of optimum utilization of resources. It arises because resources are scarce and resources have alternative uses

S.no	Questions	Remark
1	What to produce?	Make
2	How to produce?	Manufacture
3	For whom to produce?	Who gets what
4	How much to produce	Quantity

5	Who gets to make these decisions?	Permission
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MANAGERIAL ECONOMICS

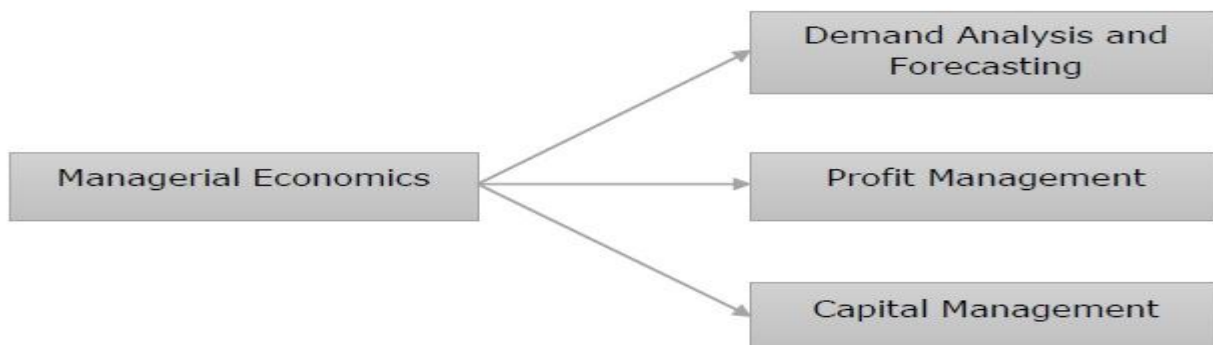
To quote Mansfield, “Managerial economics is concerned with the application of economic concepts and economic analysis to the problems of formulating rational managerial decisions. Spencer and Siegelman have defined the subject as “the integration of economic theory with business practice for the purpose of facilitating decision making and forward planning by management.”

Nature and Scope 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 primary 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.

- Economic theory and economic analysis are used to solve the problems of managerial economics.
- Economics basically comprises of two main divisions namely Micro economics and Macroeconomics.
- Managerial economics covers both macroeconomics as well as microeconomics, as both are equally important for decision making and business analysis.
- Macroeconomics deals with the study of entire economy. It considers all the factors such as government policies, business cycles, national income, etc.
- Microeconomics includes the analysis of small individual units of economy such as individual firms, individual industry, or a single individual consumer.

All the economic theories, tools, and concepts are covered under the scope of managerial economics to analyze the business environment. The scope of managerial economics is a continual process, as it is a developing science. Demand analysis and forecasting, profit management, and capital management are also considered under the scope of managerial economics.



Demand Analysis and Forecasting

Demand analysis and forecasting involves huge amount of decision-making! Demand estimation is an integral part of decision making, an assessment of future sales helps in strengthening the market position and maximizing profit. In managerial economics, demand analysis and forecasting holds a very important place.

Profit Management

Success of a firm depends on its primary measure and that is profit. Firms are operated to earn long term profit which is generally the reward for risk taking. Appropriate planning and measuring profit is the most important and challenging area of managerial economics.

Capital Management

Capital management involves planning and controlling of expenses. There are many problems related to capital investments which involve considerable amount of time and labor. Cost of capital and rate of return are important factors of capital management.

Demand for Managerial Economics

The demand for this subject has increased post liberalization and globalization period primarily because of increasing use of economic logic, concepts, tools and theories in the decision making process of large multinationals.

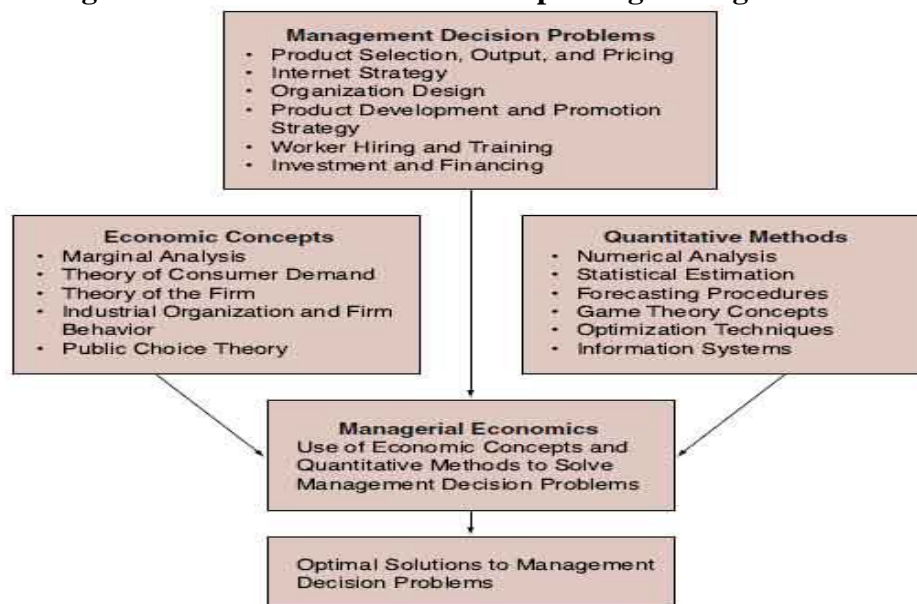
Also, this can be attributed to increasing demand for professionally trained management personnel, who can leverage limited resources available to them and maximize returns with efficiency and effectiveness.

Role in Managerial Decision Making

Managerial economics leverages economic concepts and decision science techniques to solve managerial problems. It provides optimal solutions to managerial decision making issues.

Uses of Managerial Economics in Business Decision Making

Managerial Economics Is a Tool for Improving Management Decision Making



Importance of Managerial Economics to Managers

Managerial economics has applications in both profit and not-for-profit sectors. For example, an administrator of a nonprofit hospital strives to provide the best medical care possible given limited medical staff, equipment, and related resources. Using the tools and concepts of managerial economics, the administrator can determine the optimal allocation of these limited resources. In short, managerial economics helps managers arrive at a set of operating rules that aid in the efficient use of scarce human and capital resources. By following these rules, businesses, nonprofit organizations, and government agencies are able to meet objectives efficiently.

Managerial economics offers a comprehensive application of economic theory and methodology to management decision making. It is as relevant to the management of government agencies, cooperatives, schools, hospitals, museums, and similar not-for-profit institutions as it is to the management of profit-oriented businesses. Although this text focuses primarily on business applications, it also includes examples and problems from the government and nonprofit sectors to illustrate the broad relevance of managerial economics.

CIRCULAR FLOW OF ECONOMIC ACTIVITY:

Circular flow refers to a simple economic model which describes the reciprocal circulation of income between **PRODUCERS&CONSUMERS**.

In the circular flow model, the interdependent entities of producer and consumer are referred to as **FIRMS&HOUSEHOLD** respectively and provide each other with factors in order to facilitate the flow of income. Firms provide consumers with goods and services in exchange for consumer expenditure and “Factor of production” from household.

Basic Terms in circular flow

1. **HOUSEHOLD:** Includes all people, seeking to satisfy unlimited wants and needs. The sector is responsible for consumption expenditure. It also own all productive resources (common people).
2. **BUSINESS SECTOR (FIRM):** This includes institutions (especially proprietorship, partnership and corporations) that undertake the task of combining resources to produce.
3. **GOVERNMENT SECTOR:** Include the ruling bodies of the federal, state& local government.
4. **PRODUCT MARKET:** This is the combination of all markets in the economy that exchange final goods and services. It is the mechanism that exchange gross domestic product.
5. **RESOURCE MARKET:** Labor, capital, land, entrepreneurship (**factor market**).
6. **FINANCE MARKET:** Commodities exchanged through financial market in legal claim.

In Macroeconomics we have the economy 2,3,4 sector

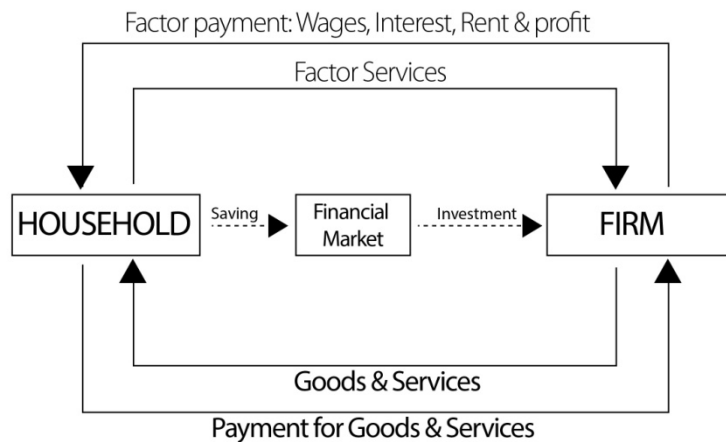
Types of economy	Entities	Remark
Economy 2 sector	Household Firm	Closed Economy
Economy 3 sector	Household Firm Government	Closed Economy
Economy 4 sector	Household Firm Government Foreign	Open Economy

CIRCULAR FLOW IN 2 SECTORS ECONOMY

Basic Assumptions

1. 2 sectors-Household & Firms
2. Firms are involved in production activities only
3. No saving (Household spend their entire income on goods and services)
4. No inventory (Firms supply goods and services on demand)
5. No Government
6. No international economic relation





CIRCULAR FLOW IN 3 SECTOR ECONOMY:

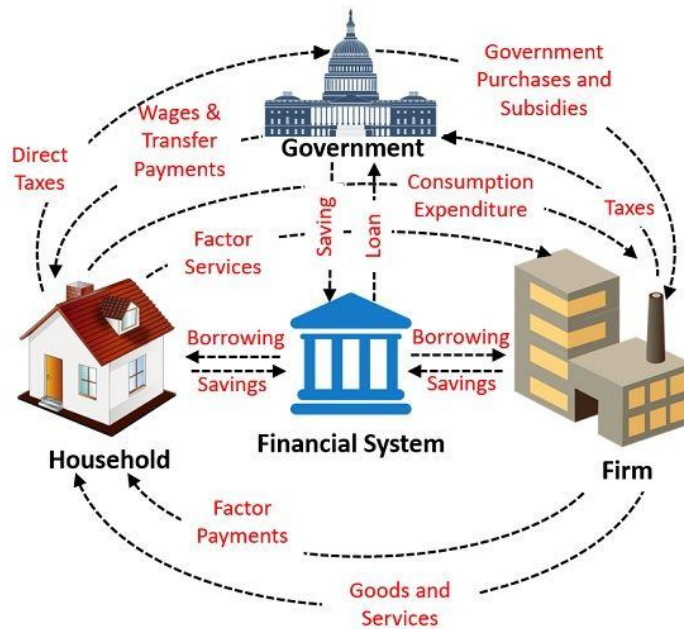
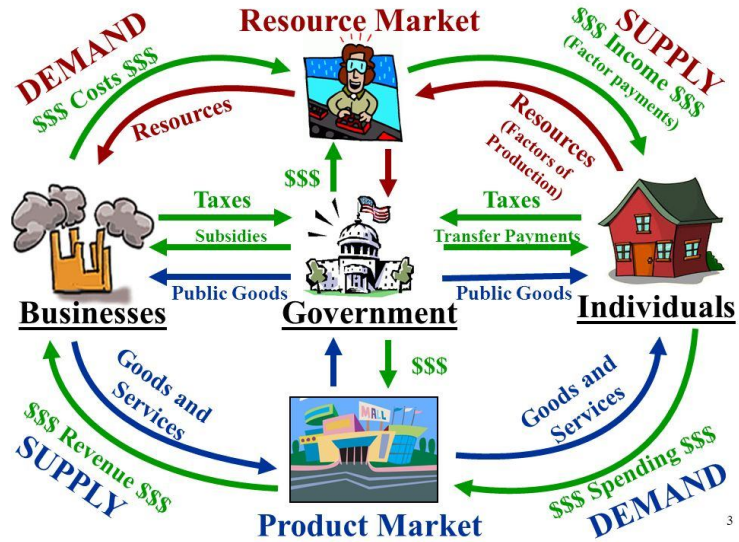
1. **HOUSE HOLD(C):** Provides factors of production to firm to generate goods and services and in return receives income from the firm in the form of salary and wage, rent, dividend and profit. Household uses this income to buy goods and services provided by the firm and this is called as consumption spending. However, the small portion of the income is deposited in financial institution and it is termed as leakage in income.
2. **FIRMS (I):** Financial institutions lands household savings to investors to invest in firm. Investments are injection in income flow.
3. **GOVERNMENT (G):** Government collects taxes on house hold and firms. Household s imposed personal income tax, while firms imposed corporate profitability tax. Tax is leakages in income flow and it acts as a source of government revenue. Government then uses its tax revenue through government expenditure. It distributes to house hold and firm for example government will pay wages to household that work as govt. employee. Government on the other hand builds roads, bridge Govt School and hospitals through investment which is done by firm. General Government includes all government departments at all levels, central, state or local, producing and supplying free services to the people. It fulfills the collective wants of the people like that of law and other. Justice, defense, education, medical treatment, sanitation, water supply, roads, etc. To fulfill these collective wants government departments spend on police, courts, military schools, hospitals etc. For this purpose, general government buys goods and services from production units. The expenditure incurred on providing free services to people is termed as government consumption expenditure. To finance its expenditure government imposes taxes on production units and households. It may also have other sources of finance. Government may also give subsidies to production units. The prefix 'general' in general government' signifies

that we are taking government as a consumer only. Government as owner of production units is treated as part of production unit sector.

1. EQUILIBRIUM: According to aggregate supply and demand (aggregate expenditure), equilibrium of national income achieved when

$$Y = C + I + G$$

$$S + T = I + G$$



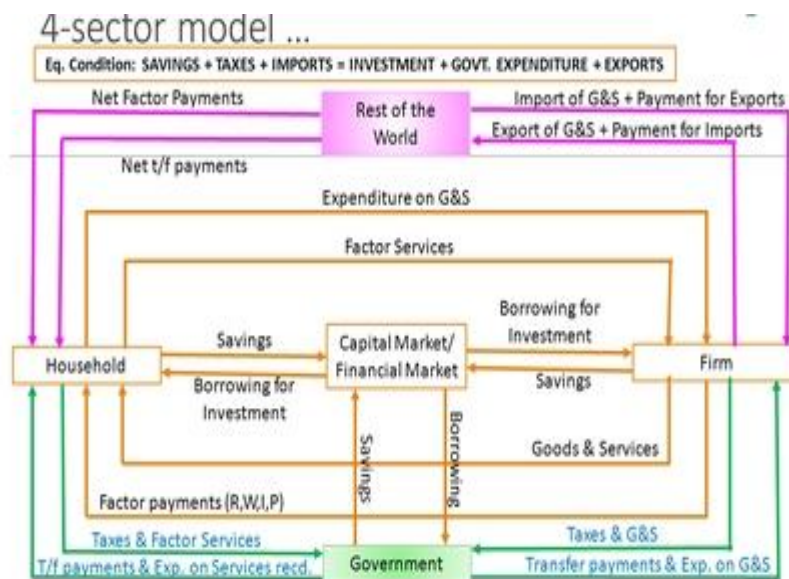
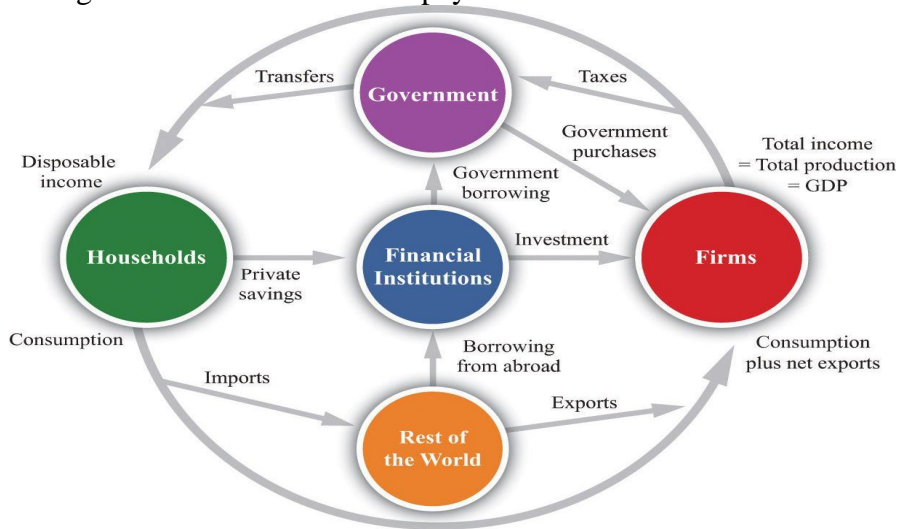
Circular Flow of Income in a Three-Sector Economy

Business Jargons

THE CIRCULAR FLOW IN 4 SECTOR ECONOMY:

1. Household
2. Firm
3. Government
4. Foreign sector

Foreign receives from firm, household and government for exports of goods and services. It makes payment payments for import of goods and services from firms and the government. It also makes payments for the factor services to the households.



A modern monetary economy comprises a network of 4 sector economy, each of the above sectors receive some payments from the other in lieu of goods and services which make a regular flow of goods and physical services. Money facilitates such an exchange smoothly. A residual of each market comes in capital market as savings which in turn is invested in firms and government sectors.

NATIONAL INCOME-CONCEPTS AND MEASUREMENT

National income is an important macro-economic aggregate. With certain qualifications, it can be taken as an indicator of economic growth, economic development and economic welfare. In view of its importance, a wrong or a biased estimation of national income can have far reaching consequences. National income is an uncertain term which is used interchangeably with national dividend, national output and national expenditure. On this basis, national income has been defined in a number of ways. In common parlance, national income means the total value of goods and services produced annually in a country. The total net value of all goods and services produced within a nation over a specified period of time, representing the sum of wages, profits, rents, interest, and pension payments to residents of the nation. National income comprises of four concepts of calculations-GDP.NDP.GNP & NNP

The concepts of flow of production, generation of income and expenditure have shown how the flow of production gives rise to generation of income, which in turn, leads to flow of expenditure. Flow of expenditure again gives rise to flow of production and thus the processes of production, income generation and expenditure go on period after period, showing thereby that these processes take place continuously in an economy. The measurement of production, income and expenditure flows with respect to normal residents of an economy gives us three methods of measuring national income of an economy.

Measures of National Income

For the purpose of measurement and analysis, national income can be viewed as an aggregate of various component flows. The most comprehensive measure of aggregate income which is widely known is Gross National Product at market prices.

Gross and Net Concept

Gross emphasizes that no allowance for capital consumption has been made or that depreciation has yet to be deducted. Net indicates that provision for capital consumption has already been made or that depreciation has already been deducted.

National and Domestic Concepts

The term national denotes that the aggregate under consideration represents the total income which accrues to the normal residents of a country due to their participation in world production during the current year.

It is also possible to measure the value of the total output or income originating within the specified geographical boundary of a country known as domestic territory. The resulting measure is called "domestic product".

Market Prices and Factor Costs

The valuation of the national product at market prices indicates the total amount actually paid by the final buyers while the valuation of national product at factor cost is a measure of the total amount earned by the factors of production for their contribution to the final output.

$$\text{GNP at market price} = \text{GNP at factor cost} + \text{indirect taxes} - \text{Subsidies.}$$

$$\text{NNP at market price} = \text{NNP at factor cost} + \text{indirect taxes} - \text{Subsidies}$$

Gross National Product and Gross Domestic Product

GNP is the value of all final goods and services produced by the residents of a country in a financial year (i.e., 1st April to 31st March of the next year in India).

While Calculating GNP, income of foreigners in a country is excluded but income of people who are living outside of that country is included. It is the GDP of a country added with its income from abroad.

$$\text{GNP} = \text{GDP} + X - M$$

Where, X = income of the people of a country who are living outside of the Country

and M = income of the foreigners in a country

- India's GNP is always lower than its GDP.
- This is the national income according to which the IMF ranks nations.
- It allows for knowledge of factors in production behavior and pattern of an economy's dependence on outside world, nature of human resources internationally, position in world economics.
- It indicates both qualitative as well as quantitative aspects of an economy in a more exhaustive fashion than GDP.
- Intermediate products = one production unit purchasing from other for resale
- Final product = all goods and services purchased for consumption and investment, and not for resale
- Value added = Value of output – Intermediate cost
- Gross value added = net value added + depreciation
- Indirect tax = all taxes levied on production, finally paid by consumer of buyer Ex – sales tax, excise, customs
- Subsidies = Financial help given by the government to the production units for selling the product at lower prices

For some purposes we need to find the total income generated from production within the territorial boundaries of an economy irrespective of whether it belongs to the inhabitants of that nation or not. Such an income is known as Gross Domestic Product (GDP) and found as –

$$\text{GDP} = \text{GNP} - \text{Net Factor Income From Abroad}$$

Net Factor Income from Abroad = Factor Income Received From Abroad - Factor Income Paid Abroad

Gross domestic product is the value of all final goods and services produced within the boundary of a nation during one year. In India one year means from 1st April to 31st March of the next year.

GDP calculation includes income of foreigners in a Country but excludes income of those people who are living outside of that country.

Net National Product (NNP): Net National Product (NNP) in an economy is the GNP after deducting the loss due to depreciation.

The NNP is an alternative and closely related measure of the national income. It differs from GNP in only one respect. GNP is the sum of final products. It includes consumption of goods, gross investment, government expenditures on goods and services, and net exports.

$$\text{GNP} = \text{NNP} - \text{Depreciation}$$

NNP includes net private investment while GNP includes gross private domestic investment.

- NNP at Factor Cost: It is the value of NNP when the value of goods and services is taken at the production cost.

-
- **NNP at Market Price:** It is the value of NNP at consumer cost.

$\text{NNP at market cost} = \text{NNP at factor cost} + \text{Indirect taxes} - \text{Subsidies}$

Closed Economy: An economy that does not maintain any economic relations with the rest of the world. **Economic Goods:** Those goods which are scarce in supply and, hence, command a price.

Economic Growth: A sustained increase in real national income of a country.

Nominal National Income: The money value of all the final goods and services produced in an economy during a year, estimated at current prices.

Real National Income: The money value of all the final goods and services produced in an economy during a year, estimated at some fixed prices.

Subsidy: It is the grant given on current account by the Government to the private industries and public corporations for selling certain goods at a price fixed by the Government.

Personal Income

Personal income is calculated by subtracting from national income those types of incomes which are earned but not received and adding those types which are received but not currently earned.

$\text{Personal Income} = \text{NNP at Factor Cost} - \text{Undistributed Profits} - \text{Corporate Taxes} + \text{Transfer Payments}$

Disposable Income

Disposable income is the total income that actually remains with individuals to dispose off as they wish. It differs from personal income by the amount of direct taxes paid by individuals.

$\text{Disposable Income} = \text{Personal Income} - \text{Personal taxes}$

Value Added

The concept of value added is a useful device to find out the exact amount that is added at each stage of production to the value of the final product. Value added can be defined as the difference between the value of output produced by that firm and the total expenditure incurred by it on the materials and intermediate products purchased from other business firms.

Methods of Measuring National Income

Let's have a look at the following ways of measuring national income –

Product Approach

In product approach, national income is measured as a flow of goods and services. Value of money for all final goods and services is produced in an economy during a year. Final goods are those goods which are directly consumed and not used in further production process. In our economy product approach benefits various sectors like forestry, agriculture, mining etc to estimate gross and net value.

Income Approach

In income approach, national income is measured as a flow of factor incomes. Income received by basic factors like labor, capital, land and entrepreneurship are summed up. This approach is also called as income distributed approach.

Expenditure Approach

This method is known as the final product method. In this method, national income is measured as a flow of expenditure incurred by the society in a particular year. The expenditures are classified as personal consumption expenditure, net domestic investment, government expenditure on goods and services and net foreign investment.

These three approaches to the measurement of national income yield identical results. They provide three alternative methods of measuring essentially the same magnitude.

National Income Measurement:

- Primary sector: all production units engaged in exploitation of natural resources like Agriculture, Fishing, Mining and Quarrying , Forestry and Logging
- Secondary sector: all production units engaged in transforming one good to another like Registered manufacture, unregistered, Construction, Electricity Gas Water supply
- Tertiary sector: all units engaged in producing services like Banking&Insurance, Trade, hotel, restaurant, transport, storage, Real estate dwelling, Public administration &defense, other services.

Components of Domestic Income:

1. Compensation of Employees

a. Wages and salaries(Cash/or kinds)

b. Employers Contribution of Social security Schemes

2. Operating surplus

a. Rent

b. Interest

c. Profit

i. Corporate Tax

ii. Dividend

iii. Undistributed corporate profit

Conceptually speaking, if complete statistical information is available, each of the three methods should ultimately lead to the same estimate of national income. But in practice, it is difficult to apply any one method to find out the contribution of each sector to national income. It is possible to combine different methods to measure the contributions of different sectors of an economy. The choice of method depends on the availability of sufficient and reliable statistical data. Central Statistical Organization uses four methods (production, income, expenditure and commodity flow) for arriving at domestic product estimate in India. The economic activity covered by production method has been increasing over a period of time because of the availability of production statistics for more sectors. Production method, at present, is employed in the commodity production sectors.