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BACHELOR OF SCIENCE IN COMPUTER SCIENCE
HRD 2103: GENERAL ECONOMICS

INTRODUCTION TO ECONOMICS

DEFINITION: Economics is a social science which is concerned with the allocation of scarce resources to provide goods and services which meet the needs and wants of the consumers.

Economics focuses on the behaviour and interactions of economic agents and how economies work. Economics is broadly classified into microeconomics and macroeconomics. **Microeconomics** examines the behaviour of basic elements in the economy, including individual agents and markets, their interactions, and the outcomes of interactions. Individual agents may include, for example, households, firms, buyers, and sellers.

Macroeconomics analyses the entire economy (meaning aggregated production, consumption, savings, and investment) and issues affecting it, including unemployment of resources (labour, capital, and land), inflation, economic growth, and the public policies that address these issues (monetary, fiscal, and other policies). Macroeconomics is the study of the economy as whole or collective decisions by individual households or producers.

Basic Concepts of Economics

Positive and Normative Economics

Positive Economics is concerned with the objective statements about what does happen or what will happen. It limits itself to statements that can be verified by reference to facts e.g. How does a higher level of unemployment affect inflation or how will a gasoline tax affect gasoline usage? A positive approach is more objective and more scientific and it is the approach we shall try to take in our study of economics here.

Normative Economics, on the other hand, is based on subjective judgements; that its, they cannot be made solely by an objective appraisal of the facts but depend to some extent on personal views in interpreting facts – ethics and value judgements. They can be argued about but they can never be settled by science or by appeal to facts, e.g. should taxation soak the rich to help the poor? Or should the defence spending grow at 3 or 5 or 10 per cent per year? They involve what ought to be and are settled by political choice.

SCARCITY, CHOICE, OPPORTUNITY COST AND PRODUCTION POSSIBILITY FRONTIERS AND CURVES

Scarcity

Scarcity is the condition of having to choose among alternatives. Our resources are limited. But our wants, our desires for the things that we can produce with those resources, are unlimited. Our unlimited wants are continually colliding with the limits of our resources, forcing us to pick some activities and to reject others. Scarcity is the condition of having to choose among alternatives. A scarce good is one for which the choice of one alternative requires that another be given up.

Choice

Because there are not enough resources to produce everything we want, a choice must be made about which of the wants to satisfy. In economics, it is assumed that people always choose the alternative that will yield them the greatest satisfaction. We therefore talk of Economic Man, in other words, a rational man who will always prefer more to less.

Opportunity Cost

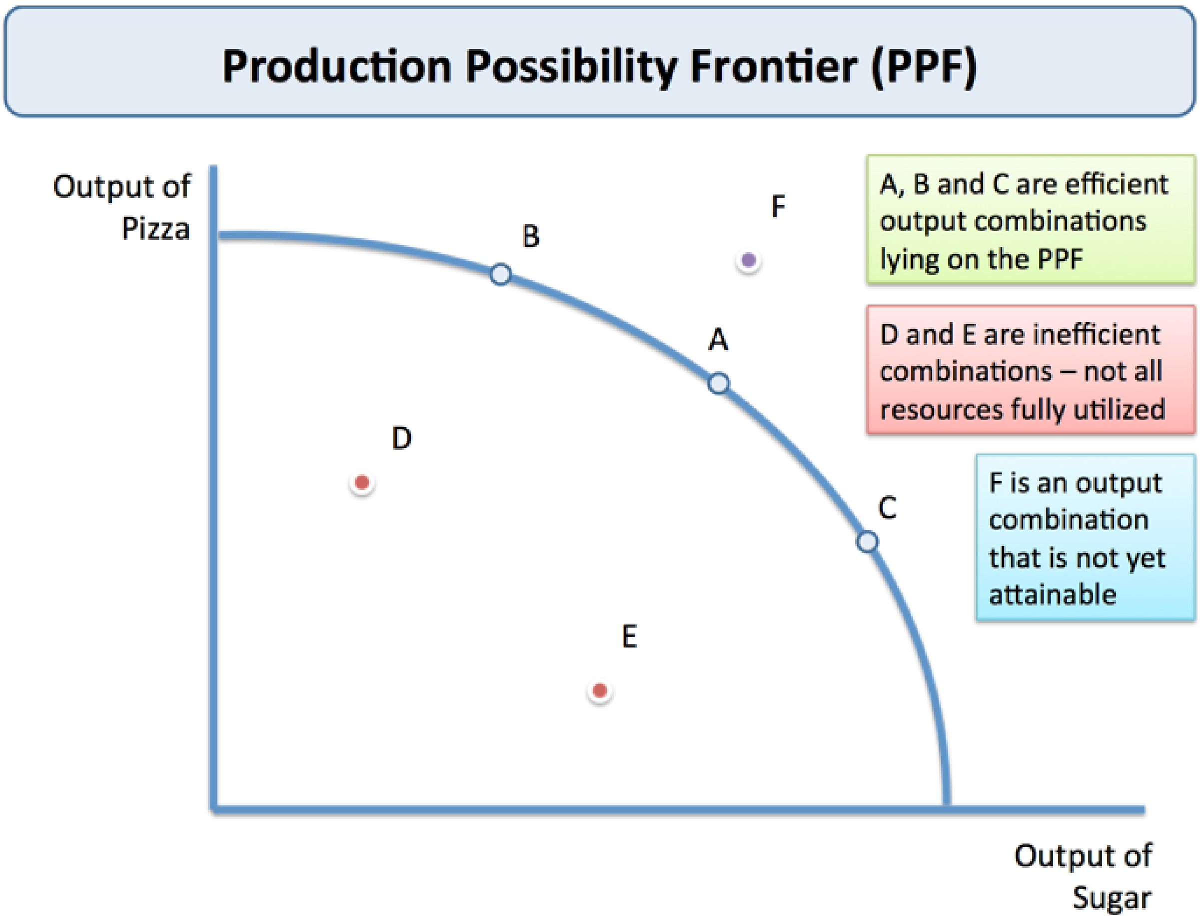
The cost of an item measured in terms of the alternative forgone is called its **opportunity cost.**

A benefit, profit, or value of something that must be given up to acquire or achieve something else. Since every resource (land, money, time, etc.) can be put to alternative uses, every action, choice, or decision has an associated opportunity cost.

Production Possibility Frontier or Production Possibilities Curve

A production possibilities curve is a graphical representation of the alternative combinations of goods and services an economy can produce. It helps illustrate the concepts of opportunity cost, trade-offs and also show the effects of economic growth. The PPC indicates the production possibilities of two commodities when resources are fixed. This means that the production of one commodity can only increase when the production of the other commodity is reduced, due to the availability of resources. Therefore, the PPC measures the efficiency in which two commodities can be produced together, helping managers and leaders decide what mix of commodities are most beneficial. The PPC assumes that technology is constant, resources are used efficiently, and that there is normally only a choice between two commodities.

The PPC drives home the idea that opportunity costs normally come up when an economic organization with limited resources must decide between two alternatives. The PPC is depicted graphically as an arc, with one commodity on the X axis and the other commodity on the Y axis. At each point on the arc, there are an efficient number of the two commodities that can be produced with available resources. Therefore, it's up to the organization to look at the PPC and decide what number of each commodity should be produced to maximize the overall benefit to the economy.



We normally draw a PPF on a diagram as **concave to the origin** i.e. as we move down the PPF, as more resources are allocated towards Good Y the extra output gets smaller – so more of Good X has to be given up in order to produce Good Y

This is an explanation of **the law of diminishing returns** and it occurs because not all factor inputs are equally suited to producing items

SOME USES OF THE P-P FRONTIER

a) PPF illustrate the basic definition of economics as *the science of choosing what goods to produce*. This illustrates the basic concept in economics – that of an opportunity cost.

b) The production possibility frontier provides a rigorous definition of scarcity;
Points A, B and C are feasible points, given the current state of technical knowledge and the available resources. Points to the right of and above the frontier (such as G) are infeasible;

they cannot be attained without technical change or an increase in resource availability. The P-P frontier shows the outer limit of the combination of producible goods.

c) The production-possibility schedule can also help make clear the three basic problems of economic life; *What, How*, and *For whom* to produce.

What goods are produced and consumed can be depicted by the point that ends up getting chosen on the P.P frontier.

How goods are to be produced involves an efficient choice of methods and proper assignments of different amounts and kinds of limited resources to the various industries.

For whom goods are to be produced cannot be discerned from the P.P diagram alone. Sometimes, though you can make a guess from it. If you find a society on its P.P frontier with many yachts and furs, but few potatoes and compact cars, you might suspect that it enjoys considerable inequality of income and wealth among its people.

SPECIALIZATION AND EXCHANGE

a) **Specialization**

The economies of mass production upon which modern standards of living are based would not be possible if production took place in self-sufficient farm households or regions.

As such, many societies and individuals specialize or concentrate on only one activity or type of production.

Division of labour and specialisation

Division of labour refers to the situation in which the production process is split into very large number of individual operations and each operation is the special task of one worker. The workers then specialise on one activity. Four distinct stages can be distinguished in the development of division of labour and specialization.

Specialisation by craft

Specialisation by process

Regional specialisation

International division of labour

Advantages of Division of Labour

(i) Greater skill of worker

The constant repetition of a task makes its performance almost automatic. The workers thus acquire greater skills at their job.

(ii) A saving of time

By keeping to a single operation, a worker can accomplish a great deal more, since he wastes less time between operations. Less time, too, is required learning how to perform a single operation than to learn a complete trade.

(iii) Employment of specialists

Specialisation makes it possible for each workman to specialise in the work for which he has the greatest aptitude

(iv) Use of machinery

Specialisation permits the use of some tools specific to a particular task, which can make the life of a worker that much easier.

(v) Less fatigue

It is sometimes claimed that the worker, habituated to the repetition of simple tasks, becomes less fatigued by his work.

Disadvantages of Division of Labour and Specialisation

(i) Monotony

Doing the same work repeatedly can result in boredom, and this can offset the efficiency that would otherwise result from experience.

(ii) Decline of craftsmanship

If a person does the same kind of work repeatedly according to laid down routine, he loses initiative for innovation and this can lead to loss of job satisfaction.

(iii) Greater risk of unemployment

If a worker is highly specialised, he can be easily unemployed if something goes wrong with the product of his industry (e.g. if the product is found to have negative effects to health, and demands for it falls) or if a machine is introduced to perform his work.

(iv) Increased interdependency

Since each worker contributes only a small part towards the completion of the final product, the efficiency and success of the whole process will depend on the efficiency and co-operation of all the workers. If some of the workers are inefficient, they can frustrate the whole system even if the rest of the workers are doing their work properly.

b) Exchange

When societies or individuals specialize, they are likely to produce a flood of "surplus" goods. They are thus bound to exchange this surplus for what they don't produce. In primitive cutlers, this exchange will take place in the form of barter. For example, it is not uncommon for food to be exchanged for weapons; or for aid in the building of a house to be exchanged for aid in cleaning a field. But exchange today in all economies – capitalist or communist takes place through the medium of money.

RATIONALITY

This is the assumption that individuals prefer more to less.

CETERIS PARIBUS

When formulating economic principles economists are usually careful to state that such and such will happen, ***ceteris paribus*** which is the Latin expression meaning ***all other things remaining constant***.

ECONOMIC GOALS (not to be confused with basic economic problems)

The four main economic goals are:

- control of inflation
- reduction of unemployment
- promotion of economic growth
- Attainment of a favourable balance of payments.

ECONOMIC SYSTEMS

Economic systems refer to the way economic elements, individuals' workers, firms, government agencies are linked together to form an organic whole.

It refers to the mode of production and distribution of goods and services within which economic activities take place.

It also refers to how the different economic element will solve essential problems of economy. The choices we confront as a result of scarcity raise three sets of issues. Every economy must answer the following questions:

What should be produced? Using the economy's scarce resources to produce one thing requires giving up another. Producing better education, for example, may require cutting back on other services, such as health care. Every society must decide what it will produce with its scarce resources.

How should goods and services be produced? There are all sorts of choices to be made in determining how goods and services should be produced. Should a firm employ a few skilled or a lot of unskilled workers? Should it produce in its own country or should it use foreign plants? Should manufacturing firms use new or recycled raw materials to make their products?

For whom should goods and services be produced? If a good or service is produced, a decision must be made about who will get it. A decision to have one person or group receives a good or service usually means it will not be available to someone else.

TYPES OF ECONOMIC SYSTEMS

1. Free market/capitalism system
2. Centrally planned/Socialism system
3. Mixed system

1.FREE MARKET ECONOMIC SYSTEM/CAPITALISM

It's an economic system whereby there is absence of government intervention and where the forces of demand and supply determine the price and the quantity. This system works under private authority and its aim is to earn maximum profit. Each individual in his capacity as a consumer, producer and resource owner is engaged in an economic activity with a large measure of economic freedom. Individual economic actions conform to the existing legal and institution framework of the society.

Features of Capitalism

1. **Private property:** All factors of production are privately owned and management by individuals

2. **Profit motive:** The decision of businessmen, farmers, producers including that of which earners are based on the profit motive.

3. **Price mechanism:** The price mechanism operates automatically without any direction and control by the central authority

4. **Role of the state:** The role of the state is limited to maintenance of law and order.

The state also tries to maintain fiscal and monetary policies.

5. **Consumer sovereignty:** The consumers are the ultimate dictators of what is to be produced.

6. **Freedom of enterprise:** This means that there is free choice of occupation for an entrepreneur, a capitalist and a labourer, but this freedom is limited by their ability and training.

7. **Competition:** This implies the existence of large number of buyers and sellers in a market who are motivated by self-interest. However, their individual actions cannot influence the market.

MERITS OF CAPITALISM

1. **Increased production:** Since every resource owner can use his resources anyway he likes, this brings improvement in production and increases productivity.

2. **Increase in income:** There is increased income resulting from increased production.

3. **Quality products and low costs:** The freedom of consumers and producers leads to the production of quality products and lowering of costs and prices.

4. **Progress and prosperity:** The presence of completion under capitalism leads to an increase in efficiency. This encourages producers to innovate thereby brings progress and prosperity in the country.

5. **Maximizes welfare:** The automatic working of the price mechanism brings efficiency in the production and distribution of goods and services and promotes maximum welfare in community.

6. **Optimum use of resources:** Producers undertake the production of only those goods which appear to yield maximum profit in anticipation of demand.

This leads to optimum use of resources.

7. **Flexible system:** Due to the operation of price mechanism shortages and surpluses are automatically collected by forces of demand and supply.

DEMERITS OF CAPITALISM

1. **It leads to monopoly:** The profit motive leads to cut throat completion and ultimately brings a reduction in the number of firms engaged in production. As a result small firms are eliminated in the process.

2. **Leads to inequalities:** The institution of private property creates inequality of income and wealth.

3. **Consumer sovereignty is a myth:** Even though consumer sovereignty is assumed, reality is, it's the producer who decides what would be supplied.

4. **Depression and unemployment:** Capitalism is characterized by business fluctuations and unemployment.

5. **Inefficient production:** Production meant for profit motive at the expense of necessities needed by poor

6. **Non-utilization of resources:** The price mechanism fails to utilize the country's resources fully

7. **Class conflict:** Under capitalism, the poor are exploited by the rich leading to mutual distrust between workers and employers.

8. **Externalities/spills over:** Are the social costs which are not taken into account by firms when determining **price** level

9. **Non-provision of public goods:** Price mechanism on its own cannot allocate resources to the production of public goods.

CONSUMER SOVEREIGNITY

The free market has given rise to consumer sovereignty.

This is the power of consumers to determine what goods and services are produced. The theory suggests that consumers, not producers, are the best judge of what products benefit them the most. Due to the fact that consumer markets depend so heavily on demand, producers must monitor the needs of these individuals if they want their products to have any chance at success.

Consumer sovereignty is limited by the following factors:

1. **Nature of the economic systems:** The consumer is more sovereign in a free market-oriented system where commodities are produced more in line with consumer preference. In planned economies, less regard is given to consumers' preference

2. **Size of consumer income:** In general, the larger the consumers income, the greater consumers sovereignty since the consumer can afford to choose from a wide variety of goods.

Consumer sovereignty is however always limited to some extent since wants are limited

3. **The range of goods available:** Different consumers have very different individual taste and preference in its difficult for the available range of goods and services to satisfy all consumers.

4. **Government intervention in providing merit on public goods:** The fact that the government needs to intervene to provide essential goods and services demonstrate that complete reliance on consumer preferences especially in market-oriented economy would lead to under provision of certain goods and services.

5. **Power of advertising:** Advertising by large corporations not only entices consumers to use their products but also creates new wants.

6. **Existence of monopolies:** Monopolies often limits consumer sovereignty by producing relatively higher priced goods and lower quality goods

7. **Consumer habits:** Individual consumers have different habits and are reluctant to change them.

8. **Provision of standardized goods:** Its often cheaper to produce standardized goods but in doing so consumer freedom is limited.

9. **Fashion and custom:** Consumer behavior is linked to the prevailing latest trends in society and reluctance to contravene consumers customers custom limits consumers' freedom.

PLANNED/SOCIALISM/COMMAND ECONOMIES

Is an economic organisation in which the means of production are owned and regulated by state. The production and distribution of goods and factors of production are done by the state under the direction of the planning commission.

FEATURES

1. **Public ownership:** Means of production and distribution are publicly owned This collection ownership of all institutions i.e they are owned, controlled and regulated by the government
2. **Central panning**

   A planned economy is centrally planned by a central planning authority
3. **Definite objectives**

   These economies operate within definite social economic objective
4. **Lack of freedom of consumption**

   Is lack of consumer sovereignty in this economy
5. **Equality of income distribution**

   There is fair income distribution compared to capitalism
6. **Controlled pricing**

   The pricing system does not operate freely but works under control of central planning authority.

MERITS

1. Greater economic efficiency
2. Greater welfare due to less inequality and income
3. Absence of monopolistic practices
4. Absence of business fluctuations

DEMERITS

1. Lack of consumer sovereignty
2. No freedom of occupation
3. Misallocation of resources
4. It is bureaucratic controlled
5. Lack of initiative for people to work hard

MIXED ECONOMIES

- A mixed economy is one incorporating aspects of more than one economic system
- This means it contains both privately owned and state-owned enterprise
- The basic aspect of allocation of scarce resources is determined both by government and price mechanism.
- This system overcomes the disadvantages of both market and planned economic system.

FEATURES

1. **Ownership**

   The government owns some factors of production and some are privately owned.

2. **Private sector**

   There's presence of private sector in which production and distribution of goods and services is done by the private sector

3. **Objectives**

   The objectives are determined by ownership of resources. The market part of eh economy would be motivated by self-interest and the government by common good.

4. **Level of competition**

   The private sector can be quite competitive and for such reasons government set up boards whose job is to make sure that industries do not become uncompetitive.

5. **Pricing system**

   The price mechanism operated under the private sector.

Reasons why government intervene in the economy

1. **Creating a framework of rule and regulations**

   This is to ensure fair pay in the competition between producers and consumers in economy

2. **Maintaining competition**

   - The evolution of capitalism economy may often drip into monopolies and oligopolies
   - These firms may have the effects of undermining efficient allocation of economic resources among competing users thus government has to intervene in the economy to maintain competition.

3. **Market failure**

   This is where market forces fail to determine the efficient allocation of goods and services such as public goods and thus the government must intervene.

4. **Redistribution of income**
   - One of the major objectives of the government is to ensure economic welfare of its citizens
   - This is done by equitable distribution of income and wealth.

5. **Stabilization of economy**

   The government stabilizes the economy by using both monetary and fiscal economies.

MERITS

1. **Best allocation of resources**

   Since mixed economies incorporate the good features of both capitalism and socialism the resources of the economy are neutralized in the best possible manner.

2. **General balance**

   A mixed economy maintains general balance between public and private sector.

3. **Welfare state**
   - A mixed economy contains all the features of a welfare state
   - There is no expectation either by capitalist or state

DEMERITS

1. **Non-corporation between two sectors**
   - The private sector operates under various restrictions imposed by the government.
   - It is taxed highly while the public sector gets subsidies.

2. **Inefficient public sector**
   - The public sector of a mixed economy is a big burden on the economy because it works inefficiently
   - These is overstuffing, corruption, bureaucracy

3. **Economic fluctuations**

   The experience of the working of mixed economies reveals that they've not been able to remove economic fluctuations.

PARTIAL EQUILLIBRIUM VS GENERAL EQUILLIEBRIUM ANALYSIS

Partial Equilibrium

- Its studies equilibrium of individual firm consumer and industry
- It studies the behavior of individual decision-making units and functioning of individual markets keeping all other variables constant. (Ceteris paribus).

General Equilibrium

It studies a number of economic variables, their integration and interdependence for the understanding of economic system.

TYPES OF DEMAND

There are four types of demand namely Competitive Demand, Joint or Complementary Demand, Composite Demand and Derived Demand. Demand is the amount of a product buyers are willing and able to purchase at a given price over a particular period of time.

a. Competitive Demand

Commodities are substitutes if one can be used in place of the other. Substitute goods serve the same purpose and therefore compete for the consumers' income. They are said to have competitive demand because of the fact that they compete for the consumers' income. Examples of substitute goods are Milo and bournvita, butter and margarine and others. A change in the price of one affects the demand for the other. If for instance there is an increase in the price of butter, demand for margarine will increase which will ultimately increase the price of margarine, provided the supply of margarine does not change. On the other hand, a decrease in the price of butter will lead to a decrease in the demand for margarine, and hence a fall in its price, given the supply.

b. Joint or Complementary Demand

Two or more goods are said to be jointly demanded when they must be consumed together to provide a given level of satisfaction. Some examples are cars and fuel, compact disc players and CD. There are perfect complementary goods and imperfect or poor complementary goods. For perfect complementary goods, the consumer practically cannot do without the other. An example is cars and fuel. On the other hand, for imperfect complementary goods, a consumer can do without the other, so long as a substitute is obtained. For complementary demand, a change in the price of one good affect the demand for the other. If there should be an increase in the price of compact disc players, there will be a decrease in the demand for discs, other things being equal.

c. Derived Demand

When the demand for a commodity is derived from the demand for the final commodity, that commodity is said to have derived demand. Wood may be demanded for the purpose of manufacturing furniture and not for its own sake. Here, the demand for wood is derived from the demand for furniture. Demand for wood is therefore a derived demand.

Factors of production such as land, labor, and capital have derived demand. This is because an increase in the demand for a commodity will result in an increase in the factors of production used in producing the goods. The price of the factors of production will increase, other things being equal.

d. Composite Demand

Composite demand applies to commodities which have several uses or are demanded for several and different purposes. Wood as mentioned in the example above is used for furniture – tables, chairs, beds, windows, doors and others. A change in demand for one of them will affect all others. If there is an increase in demand for table this will result in higher prices being paid for wood. The high price for wood will increase the cost of production of chairs, bed, windows and doors and any other thing for which wood is used in manufacturing.